



HC 370

CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

WEEK D34
7 OCTOBER 81
60436D - 62329D

ABSTRACTS

INDEXES

II - PATENTEE

V - ACCESSION NUMBER

VII - PATENT NUMBER

Section D:

FOOD
DETERGENTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	3 AUG - 9 AUG 81	887,334 - 887,428
-Non Delayed	31 JUL 81	888,216 - 888,343
BRAZIL	28 JUL 81	8,000,090 - 103,286
SWITZERLAND	15 JUL + 31 JUL 81	612,565 - 621,232
		623,971 - 624,525
E.GERMANY	27 MAY 81	109,448 - 142,431
		148,436 - 148,533
DENMARK	27 JUL 81	7,904,102 - 8,004,931
W.GERMANY		
-OLS	13 AUG 81	2,937,134 - 3,045,850
-DAS	13 AUG 81	1,934,628 - 2,947,555
EUROPE		
-Unexamined	12 AUG 81	33,314 - 33,724
-Granted	12 AUG 81	00,046 - 14,725
FINLAND	31 JUL 81	7,901,684 - 8,100,966
FRANCE	3 JUL 81	2,472,331 - 2,472,903
UNITED KINGDOM	19 AUG 81	1,595,701 - 1,596,250
		2,068,701 - 2,069,300
JAPAN		
-Unexamined	—	47,005,439 - 55,091,358
	2 JUL - 9 JUL 81	56,080,601 - 56,084,600
-Examined	ent) 23 JUL - 29 JUL 81	81,031,681 - 81,032,760
NETHERLANDS	3 AUG 81	7,920,096 - 8,101,768
NORWAY	27 JUL 81	7,902,438 - 8,100,012
ROMANIA	MARCH 81	59,137 - 76,480
SWEDEN*	3 AUG 81	7,906,897 - 8,103,808
SOVIET UNION	—	773,860 - 787,065
UNITED STATES		
-Reissues	4 AUG 81	Re30,693 - Re30,700
-Defensives	4 AUG 81	T100,901 - T100,904
-Patents	4 AUG 81	4,281,417 - 4,282,606
PCT	6 AUG 81	8,102,086 - 8,102,237

*Includes numbered Basics from Weeks D28 (CPI) and D29 (EPI)

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating,
A+	Polymer Applns.		Photographic Chemistry
B	Pharmaceuticals	H	Petroleum
C	Agricultural Chemistry	J	Chemical Engineering
D	Food, Disinfectants, Detergents	K	Nucleonics, Explosives, Protection
E	General Chemistry	L	Refractories, Ceramics
E+	General Chemistry Applns.	M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	IPC	Patent No
MEDA-				A89			69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)										
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)										
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26										

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.



DERWENT PATENTS SERVICES

1981 INSTRUCTION CLASSES REGISTRATION FORM

A round of Derwent instruction classes, to be held during September, October and November 1981, will be of very special significance to both new *and* existing users.

The Syllabus of classes is as follows:

Elementary A Coding (IC2)	<i>A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.</i>
Elementary BCE Coding (IC3)	<i>A two day course for new users of CPI Sections BC & E codes with special reference to the New Chemical Code, again with discussion of examples. Max. 20 participants.</i>
Advanced A Coding (IC4)	<i>A two day course for those with previous training and experience of the CPI Section A codes. Max. 20 participants.</i>
Advanced BCE Coding (IC5)	<i>A two day course for those with previous training and experience of CPI Sections BC & E codes, with special reference to the New Chemical Code and coverage of complex examples. Max. 20 participants.</i>
Online User Instruction and General Overview (IC6)	<i>A one day course giving in-depth treatment of all access points except special coding, together with formulation of strategy and "hands-on" experience. A general overview of Derwent and its Patents products will also be given. Max. 20 participants.</i>
Advanced Online Searching (IC7)	<i>A one day course demonstrating the use of special coding concepts and other parameters in the formulation of search logic to retrieve specific subjects or chemical structures. Max. 10 participants.</i>

Cost per person for these classes is: IC2 through IC5 £60 or \$130; IC6 and IC7 £40 or \$90.

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Request for User Aids

Instruction Manuals No. sets
(£7, \$16, ¥4000 each including postage). required.

No. 1	CPI/EPI GENERAL (INC ONLINE)	
No. 2	CPI/WPI COMPANY/MANUAL CODES	
No. 3	CPI CHEMICAL RETRIEVAL	
No. 4	PLASDOC RETRIEVAL	

Derwent Brochures (free of charge)	No. sets required
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CPI	
WPI	
WPA	
EPI	
ONLINE	

SCHEDULE AND REQUIREMENTS

Please enter the numbers of your staff who will attend, and complete the details on the reverse side of this registration form. (This form should be returned to Derwent as soon as possible).

DATE	LOCATION	INTRODUCTORY CLASS	ADVANCED CLASS	NUMBERS ATTENDING
21/22 Sept	Chicago	BCE Coding/Retrieval		
21/22 Sept	Chicago	A Coding/Retrieval		
23 Sept	Chicago	Online Searching		
23 Sept	Chicago		Online Searching	
24/25 Sept	Chicago		BCE Coding/Retrieval	
24/25 Sept	Chicago		A Coding/Retrieval	
28/29 Sept	Washington DC	BCE Coding/Retrieval		
28/29 Sept	Washington DC	A Coding/Retrieval		
30 Sept	Washington DC	Online Searching		
30 Sept	Washington DC		Online Searching	
1/2 Oct	Washington DC		BCE Coding/Retrieval	
1/2 Oct	Washington DC		A Coding/Retrieval	
5 Oct	New York	Online Searching		
6 Oct	New York		Online Searching	
12/13 Oct	Amsterdam	BCE Coding/Retrieval		
12/13 Oct	Amsterdam	A Coding/Retrieval		
14 Oct	Amsterdam	Online Searching		
14 Oct	Amsterdam		Online Searching	
15/16 Oct	Amsterdam		BCE Coding/Retrieval	
15/16 Oct	Amsterdam		A Coding/Retrieval	
19/20 Oct	Stockholm	BCE Coding/Retrieval		
21 Oct	Stockholm	Online Searching		
22/23 Oct	Stockholm	A Coding/Retrieval		
26/27 Oct	Frankfurt	BCE Coding/Retrieval		
26/27 Oct	Frankfurt	A Coding/Retrieval		
28 Oct	Frankfurt	Online Searching		
28 Oct	Frankfurt		Online Searching	
29/30 Oct	Frankfurt		BCE Coding/Retrieval	
29/30 Oct	Frankfurt		A Coding/Retrieval	
2/3 Nov	London	BCE Coding/Retrieval		
2/3 Nov	London	A Coding/Retrieval		
4 Nov	London	Online Searching		
4 Nov	London		Online Searching	
5/6 Nov	London		BCE Coding/Retrieval	
5/6 Nov	London		A Coding/Retrieval	
9/10 Nov	Milan	BCE Coding/Retrieval		
11 Nov	Milan	Online Searching		



D1: FOOD; FERMENTATION

D11: BAKING

PAIN/ ★ D11 60663 D/34 ★ DE 3004-787
Extrusion baking of bread - preceded by drying and/or roasting to reduce moisture content

PAIN JACQUET BISCOT 06.02.80-DE-004787
(13.08.81) A21d-13 A21d-15
06.02.80 as 004787 (39HM)

Conventional extrusion baking process is preceded by a drying and/or roasting operation for the material which has undergone the kneading, raising and baking stages. The drying and/or roasting operation has the purpose of reducing the moisture content in the material to be processed to bread from 35-38% to under 10%.

The first stage is a conventional process of preparing the usual raw materials of flour, water and additives by kneading, dough raising and baking. Drying and/or roasting to reduce the moisture content to under 10% and fine grinding precede the extrusion baking. Fresh flour can be added before the last stage at a rate of 20-40%. The best results were achieved by keeping the conditions directly ahead of the extrusion nozzle at 125-145 deg.C and 160-200 bar.

This turns the pale colour of extrusion baked bread into a golden brown and improves its aroma and pH value. (8pp)

SAAR/ ★ D11 D/34 ★ FI 7903-912
Filled bakery product mfr. and plant
SAARINEN JT 13.12.79-FI-003912
(31.07.81) A21d

LAMB/ ★ D11 60807 D/34 ★ FR 2472-343
Distributing dough pieces into pockets of proving chamber conveyor - by pivoting tubular chute to gravity feed each pocket in turn

LAMBERT JC 27.11.79-FR-029611
(03.07.81) A21c-09/08

27.11.79 as 029611 (448HM)
Device is for distributing bread dough pieces into individual pockets of a conveyor of a bakery proving chamber. The device comprises a tubular chute through which each dough piece in turn is gravity-fed from a supply conveyor to a pocket of the proving chamber. Near its upper end, the chute is suspended from a pivot the horizontal axis of which intersects the axis of the chute at right angles. The chute is automatically swung about its pivot to discharge into each pocket in turn of a line of pockets across the proving conveyor, which is halted while each line is filled.

The feed conveyor is timed to deliver one dough piece for each angular position of the chute. The proving chamber conveyor is timed to advance an empty line of pockets beneath the chute each time the previous line is filled.

Pref. the pivotal axis of the chute lies in the median, longitudinal plane of the proving conveyor. Angular displacement of the chute is pref. effected by a reversible horizontal chain fitted with a peg which engages a slot in a plate integral with the chute.

Used for loading bread dough pieces into pockets of the conveyor of a bakery proving chamber. Transfers of dough pieces between balling up and proving stages is now fully mechanised to eliminate manual work. This is effected with an inexpensive yet reliable system which does not subject the dough to excessive working. (9pp)

BIED/ ★ D11 60808 D/34 ★ FR 2472-344
Struts assembled for supporting decorative foods e.g. cakes - opt. made from plastics components

BIEDERMANN H 13.11.79-FR-028640
P29 (03.07.81) A21d-13/08 A47j-43/20
13.11.79 as 028640 (515DJ)

A variable support for constructing pastry, cakes etc. into decorative forms comprises a set of struts which can be assembled by locating their ends respectively into a drilled block and a restraining hoop so that either set of ends may be carried on a supporting plate. The pastry etc. may be built up within or around the hollow array of struts.

A combination of a hollow block and a convoluted lining may be used instead of a drilled block to locate the struts. Claims include use of support components made of plastics materials. Compared with conventional sheet metal supports, the strut

dry out more rapidly. (4pp)

COXD. ★ D11 60879 D/34 ★ GB 2068-71
Movable rack for baking trays - top plate bolted to corner posts fitted on sheet metal base pegs
COX DENHOLM LTD 01.04.80-GB-C10863 (06.02.80-GB-004001)

P25 (19.08.81) A47b-47/02
01.04.80 as 010863 (1358AS)

A rack has a rectangular or square base of sheet metal with an upward peg at each corner received in the lower ends of posts, and a flat top plate bolted to the post tops. The base is pref. made by a single pressing and stamping operation, has a central rectangular or square window with downwardly turned peripheral flanges, and carries castors or rollers. The rack is inexpensive and easily disassembled for transport or storage. The window permits a good upward flow of hot air. (3pp)

BAKZ D11 63160 W/38 = J8 1031-930
Oxidizer compsn. for bread making

BAKER RES & DEV CORP 14.12.73-US-424785
E19 (24.07.81) *J50094-154 A21d-02/22 + A21d-08
13.12.74 as 144007 (DB)

A baker's oxidant, for use with a dough contg. flour, water and yeast, comprises a mixt. of potassium bromate powder and ascorbic acid powder in the form of capsules coated with an edible, water-insoluble substance of m.pt. at least 54.4 deg.C.

The use of ascorbic acid in place of the conventionally used iodate provides bread of at least as good quality. The ascorbic acid is safely coated with the insoluble substance while in a cold condition.

Pref. the coated powder consists of at least 50 wt.% particles of size 20-100 mesh. (J50094154) (6pp)

BRIN. ★ D11 61619 D/34 ★ NL 8000-030
Dough rolling machine has rotating rollers - on driven endless chains above conveyor movable to periodically interrupt roller contact

KONINKL BRINKERS MA 03.01.80-NL-000030
(03.08.81) A21c-03/02

03.01.80 as 000030 (1190BZ)

The arrangement intended for rolling out dough is fed by an extruder with a continuous thick layer to form a still coherent continuous layer of lesser thickness (d). The dough arrives on a conveyor assembly which passes it below a series of driven rollers whose distance to the conveyor surface successively reduce in the direction of movement whilst the rollers themselves move at a speed greater than that of the last part of the conveyor.

The contact between the rollers and the dough is intermittently interrupted for short period so that every part of the dough mass is given a number of opportunities to relax as it passes through the rolling station.

Preparation of dough by rolling out into thin coherent layer prior to further treatment. This process prevents over-stretching of the dough layer as its thickness is gradually reduced thus preventing breaks in the layer. It further permits the throughput to be varied between certain limits to adapt it to the demand from the following treatment station. (7pp)

OPTR. ★ D11 61627 D/34 ★ NL 8100-051
Deep-frozen gâteau is cut into central piece and sectors - then decorated and re-frozen for storage and distribution to point of sale

OPT ROOT MACH FAB 07.01.81-NL-000051
P62 (03.08.81) A21c-15/04 B26d-03/24

07.01.81 as 000041 (1190DJ)

The arrangement is intended for producing a pre-sliced gâteau (1) or the like consisting of layers built up in a round baking tin. The gâteau is deep-frozen and thereafter cut into slices by pressing a cutting head (7-9) through it which has a cylindrical (8) and radial cutters (7) such that it produces a cylindrical centre piece surrounded by a number of sector-shaped slices.

It is then taken out of the tin and decorated after which it is returned to deep-freeze temperature storage and held at that temp. until it reaches its final destination.

Used for prepn. of pre-sliced deep-frozen gâteaux for distribution to points of sale. This procedure avoids cutting after un-freezing at point of sale, which is labour-intensive, often leads

to unhygienic manual contact, produces un-equally sized slices and waste through crumbling of centre, and collapsing of pointed slice ends when served. Manually cutting in frozen form is practically impossible, and radially cutters meeting at the centre make the central portion unfit for serving. (9pp)

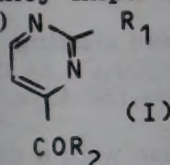
D12: MEAT; FISH PROCESSING

FIRM ★ D12 60488 D/34 ★ CH -623-996
Flavouring foods, etc., with pyrimidine derivs. - comprising 4-alkanoyl-pyrimidine cpds. and 2 methyl analogues
 FIRMENICH SA 20.12.77-CH-015735
 E13 (15.07.81) A231-01/22

20.12.77 as 015735 (367WB)
 The flavour and aroma of human and animal foods, drinks, pharmaceuticals and tobacco are reinforced, improved or modified by adding pyrimidine derivs. of formula (I): (where R₁ is H or Me and R₂ is 1-6C alkyl, provided that R₁ and R₂ are not both Me).

(I) can be added in amts. of 0.02-20 ppm, opt. in the form of a soln., e.g., in EtOH, dipropylene glycol or triacetin. (I) can be prepd. by standard methods, e.g. by reacting the corresp. 2-R₁-4-cyanopyrimidine with R₂MgX (where X = halogen).

(I) are esp. useful for flavouring meat, meat-based foods and meat substitutes, to which they impart, inter alia, roasted or grilled meat or fat notes. (5pp)



DEAK ★ D12 60503 D/34 ★ DD -148-437
Protein hydrolysate prodn. from fish - by enzymatic hydrolysis after successive acid, alkali and alcohol pretreatment
 AKAD WISSENSCHAFT DDR 15.11.79-DD-216915
 (27.05.81) A23j-01/04 A23j-03
 15.11.79 as 216915 (367HM)

Prod. of protein hydrolysates comprises (a) treating fish (esp. shark) flesh with an acid; (b) treating the solids from (a) with an alkali; (c) extracting the solids from (b) with an alcohol; and (d) hydrolysing the solids from (c) with a protease (esp. thermitase).

Step (a) is pref. effected with a 2- to 5-fold (esp. 3- to 4-fold) amt. of 0.05-1 (esp. 0.1-0.25)% H₃PO₄ at 50-70 (asp. 60) deg.C for 1-5 (esp. 2-4) hr with stirring, followed by centrifugation. Step (b) is pref. effected with 0.01-1 (esp. 0.05-0.1)% ethanolic NaOH at room temp. for 0.5-5 (esp. 1-3) hr, followed by centrifugation. Step (c) is pref. effected by extn. with ethanol at 30-60 (esp. 40-50) deg.C for 10-60 (esp. 15-45) min, the extn. being performed 1-3 (esp. 2) times.

The prods are white to pale-cream in colour, are odorless, have a neutral (non-bitter) taste, and are suitable for use in foodstuffs and dietary supplements. (10pp)

VISK- ★ D12 D/34 ★ FI 7903-655
Continuous inner coating of fibrous intestine
 VSKO OY AB 21.11.79-FI-003655
 (31.07.81) A22c

NOPE- ★ D12 D/34 ★ FI 7903-881
Fur animal skinning method and appts.
 NORSKE PELS DYRFORLA 12.12.79-FI-003881
 (31.07.81) A22b

TOUR/ ★ D12 60809 D/34 ★ FR 2472-345
Prepn. of hooved animal leg for de-boning - with machine which automatically trims spurs, removes nail and slits open leg
 TOURNIER C 20.07.79-FR-019248
 (03.07.81) A22c-17
 20.07.79 as 019248 (448BZ)

The machine has successive operational stages of (1) a cutoff station where the two side spurs are trimmed from the leg. (2) a nail removal station where the nail is eliminated from the hoof (3) a slotting station where a saw cut is opened up between cartilage and bone.

The cutoff station is equipped with a power clamp to grip the leg during spur removal and then as the leg is advanced towards the other operational stations. The three operational stations are pref. active in approximately the same horizontal plane.

The power clamp is pref. actuated by hydraulic cylinder(s). The cutoff station pref. comprises a hydraulically displaceable blade mounted in a carriage housing the power clamp. The carriage can carry the trimmed leg towards the nail removal station, which is also actuated by hydraulic cylinder(s). The sequence of

programmed controller.

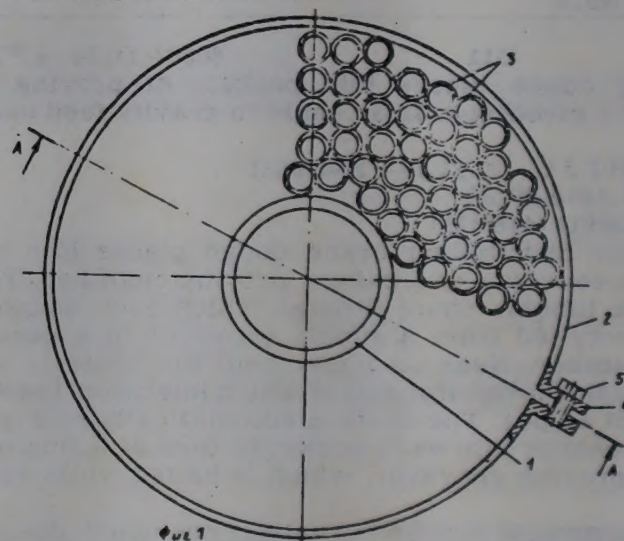
Saving of time and labour by mechanisation of tasks previously undertaken by hand. (15)

NUTR- ★ D12 D/34 ★ RO -76-326
Animal protein hydrolysate prepn. - by boiling comminuted animal protein and water, adding poultry viscera, acidifying and heating
 INST NUTRIT ANIMALA 06.10.76-RO-087919
 (30.03.81) A23k-01/10

KEME = ★ D12 61654 D/34 ★ SU -782-867
Meat mincer disc grid - has tubular elements placed in disc made as bearing element and collar
 KEMER MEAT DAIRY IN 26.02.79-SU-731378
 P41 (30.11.80) B02c-18/30

26.02.79 as 731378 (110GW)

The meat grinding grid is made as a constant thickness disc with through-openings. In order to improve mincing process efficiency, the grid is formed by tubular elements (3). The disc consists of bearing ring (1) and collar (2). The tubular elements are placed between the bearing ring and the collar. The collar is made with brackets (4) and is tightened by bolts (5). Thus the prod. is pushed through the tubular elements and through the inter-tubular space, hence improving the mincing efficiency. Bul. 44/30.11.80 (2pp Dwg.No.1).

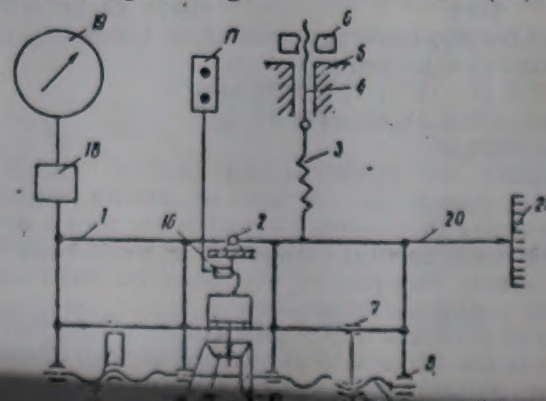


KDPO = ★ D12 61966 D/34 ★ SU -785-705
Unit for controlling moisture content of food prods. - has spring-loaded beam with weight-receiver and compensating weight actuated by a double-thread lead-screw

KRASD POLY(SEAF =) 05.12.78-SU-693124
 S03 X25 (07.12.80) G01n-25/56

05.12.78 as 693124 (29GW)

Device is used for controlling the moisture-content of food products during drying processes, and during cold smoking of meat and fish products has spring-loaded beam (1), weight-receiving attachment, balancing weights (13) and dial (19) with pointer. Control precision is increased by fitting the beam with guides (7) and lead screw (9) having left and right threads, and a displacement-analogue signal converter (18). The weight-



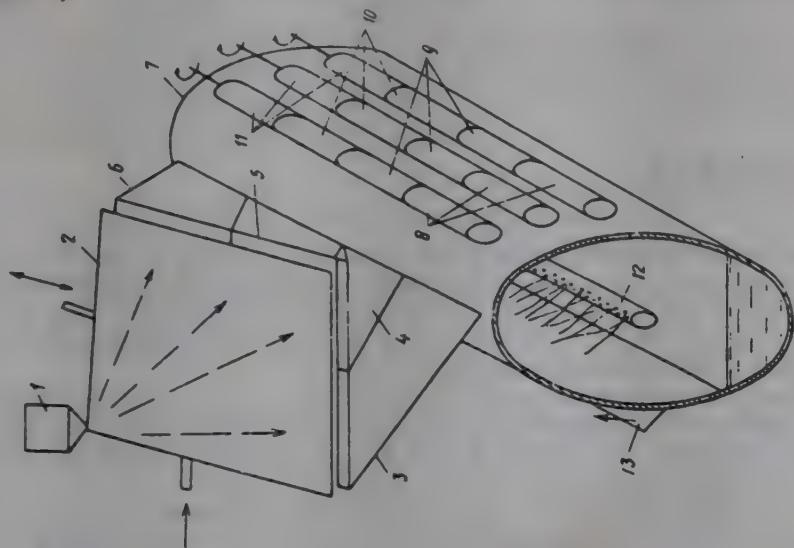
receiving attachment (12) is placed on one of the threads of the screw using a nut surrounded by a guide, with the balancing weight (13) on the other thread and guide. The lead-screw is parallel to the beam. Bul.45/7.12.80 (2pp Dwg.No.1)

MOMD ★ D12 61979 D/34 ★ SU-786-956
Meat and bone separator - has concn. table onto which ground-up frozen particles are spread, subjected to air flow and vibration, and collected in hoppers and on drum

MOSCOW MEAT DAIRY INST 02.02.79-SU-723143
(25.12.80) A22c-17/04 A22c-29/02

02.02.79 as 723143 (29GW)

Device for separating meat from bones, during the prodn. of sausages, cutlets, meat dumplings etc., with the simultaneous prodn. of ground bone, has concn. table (2) for the preliminary sepn. of the meat and bone mixt. according to size. Productivity is increased by adding a drum (7) underneath the table, which has several rows of brushes (8-11), plus an attachment (12) for thawing out the surface layer located inside the drum. The table has unloading hoppers (3-6), while the brushes in the different rows have varying degrees of rigidity and thickness; they are collected into groups so that the brushes having a particular characteristics are associated with the respective hopper. (3pp Dwg.No.1)

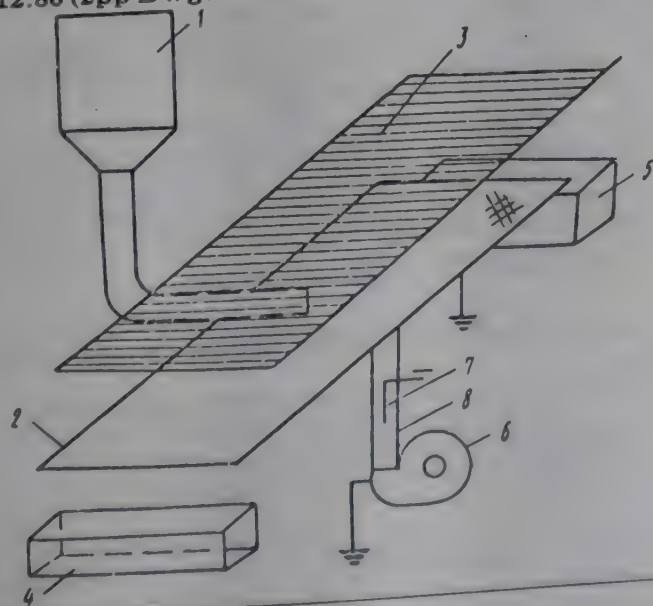


MOMD ★ D12 61980 D/34 ★ SU-786-957
Separator for meat and bone, e.g. of fish - by grinding extremely finely during freezing, and feeding to perforated, vibrating deck with ionised air flow

MOSCOW MEAT DAIRY INST 09.02.79-SU-725819
X25 (25.12.80) A22c-17/04 A22c-29/02

09.02.79 as 725819 (29GW)

Equipment to divide meat-bone raw materials into fractions (e.g., the sepn. of fish into their component parts), has concentration table with perforated deck (2) fitted at an angle, so that it slopes and can be moved backwards and forwards by the mechanism (5) in the horizontal plane, plus a fan (6) for supplying air. The sepn. is speeded up, with prevention of particles of bone falling into the meat fraction, by adding corona electrodes (3) and an air ioniser (7); the latter is placed under the deck on the delivery pipe from the fan. The deck and the pipe are earthed. Bul.46/15.12.80 (2pp Dwg.No.1)



TEKH= ★ D12 61981 D/34 ★ SU-786-958
Unit for moving fish along cassettes of conveying unit - has pusher rod and cam mechanism connected to spring-loaded arms mounted on pivots at right angles

TEKHRYBPROM COMBINE 10.01.79-SU-711879
(15.12.80) A22c-25/08

10.01.79 as 711879 (29GW)

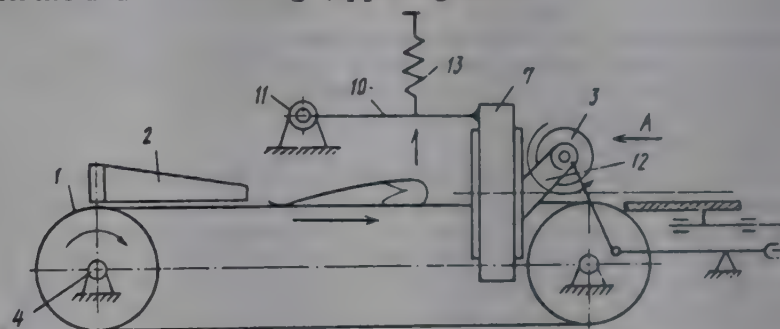
Device for moving fish along a cassette in a conveying unit of a treatment machine, e.g. for holding the fish whilst its tail fins are cut off, has spring-loaded pusher rod driven by the motion of a cam. The fish are moved during continuous conveying, with increased safety in the movement, by mounting the pusher-rod on two mutually-connected spring-loaded arms, the rocking axes of which are located at right angles to one another. The pivot of the arm on which the pusher-rod is directly fastened is parallel to the direction in which the fish are moving. (3pp)

SEVT= ★ D12 61982 D/34 ★ SU-786-959
Device for orientating fish in one direction - has conveyor above which are centring flaps and transverse drum against which fish presses to operate receiving plate which slopes upwards

SEVTEKHRYBPROM COMB 15.02.79-SU-729556
(25.12.80) A22c-25/12

15.02.79 as 729556 (29GW)

Fish-orienting device, which directs them all in the same direction, has conveyor (1), spring-loaded flaps (2) and rotating drum (3). Orientation reliability is increased, and the range of fish that can be oriented is greatly extended, by connecting the drum (3) to one of the rollers of the conveyor (1) and making it possible for it to rotate in three planes; the equipment is fitted with a plate (6) which rests against the drum and is linked to it, mounted so that it can be inclined in a direction opposite to that in which the drum is rotating. (4pp Dwg.No.1)

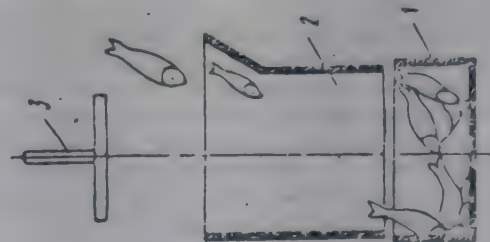


KLAI= ★ D12 61983 D/34 ★ SU-786-960
Mixing fish and salting mixt. with economy of latter - by rotating container backwards and forwards while pressing fish down to obtain better packing

KLAIPEDA ZAPRYBA 28.06.77-SU-502332
(15.12.80) A23b-04/02

28.06.77 as 502332 (29GW)

Method for making salted fish products involves proportionating the fish and a salting mixture, feeding them into containers and pressing down. The quality of the finished prod. is increased, with economy of salting mixt., by giving the containers a circular reciprocating motion during the pressing operation, using a speed of 400-1000 r.p.m. with a rotational radius of from 2 to 20 mm, in order to mix and orient the fish as they are packed with the salting mixt. (3pp Dwg.No.1)



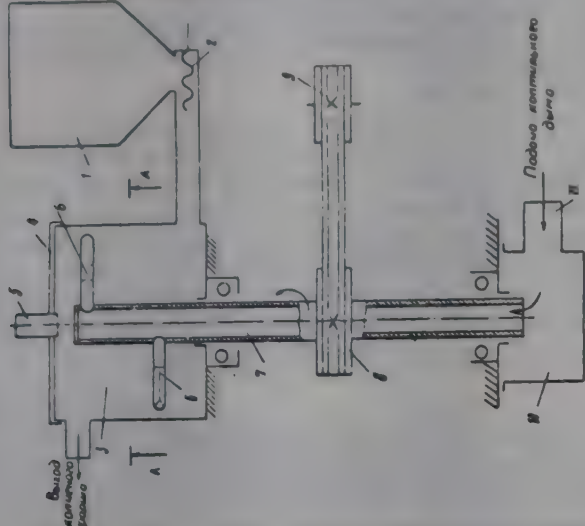
AZOV= ★ D12 61984 D/34 ★ SU-786-961
Smoking equipment for food prods., e.g. fish or meat stuffing - has mixing chamber with hollow shaft and mixing blades through which prod. is satd. with smoke

AZOV BLACK SEA FISH 23.02.79-SU-730010
(25.12.80) A23b-04/04

23.02.79 as 730010 (29GW)

Equipment for smoking food prods., e.g. in the form of meat of fish stuffing, has a chamber (4), mixer made of shaft (7) bearing the blades (6), and pipes to admit and withdraw the product being processed. The final quality of the prod. is increased by more completely saturating the material with smoke. This is achieved by making the shaft (7) and the blades (6) hollow. The blades are also fitted with holes to let the smoke come out. The blades are

triangular in shape, with their apexes facing towards the direction of rotation; this creates the suction required to draw the smoke through. (4pp Dwg.No.1.)



HOFF/★

D12

62009 D/34 ★ US 4281-436

Shrimp stripping machine - in which shrimps are fed on a needled wheel past various operating knives

HOFFMAN PH 08.05.79-US-037396

(04.08.81) A22c-29/02

08.05.79 as 037396 (525NS)

In a shrimp stripping machine, shrimps are fed by a feed device which ensures correct orientation of the shrimps, past a serrated cutting wheel which slits the abdominal shell whilst disrupting the suiminerets and the interconnecting tissue. The slit shrimps are impaled by the needles of a first wheel and under the guidance of a curved blade are passed under a cutting blade which cuts at least the first five shell segments and which removes the vein. A vacuum duct acts to suck out the shell pieces etc. cut from the shrimps and to convey the shrimps onto the first wheel. Finally the shrimps are given a butterfly cut by a spring biased blade and are transferred to a second needled wheel for removal. Final remnants of shrimp are removed through a second duct.

The machine is fast and reliable and the shrimp is correctly ovented. (9pp)

See Also

D13 US 4282256

D21 US 4282205

D13: OTHER FOODSTUFFS

ENTR-★

D13

60454 D/34 ★ BE -888-232

Producing butter-fat by removing water and protein from butter - using microwave heating followed by multistage decantation

ENTREMONT SA 21.01.81-FR-001073 (29.04.80-FR-010117)

(31.07.81) A23c B01d

01.04.81 as 888232 (448KB)

A shallow stream of melted butter is run in laminar flow through a channel where it is fully penetrated by microwave irradiation, pref. at a frequency of 2.45 GHz. The energy imparted to the butter is controlled to limit the rise in temp. to several deg.C only, pref. not more than 6 deg.C. This irradiation results in the butter fat floating on top of a layer of proteins and water. Sepn. by decanting is effected in at least two, pref. three, successive stages.

The irradiation channel is pref. made of a material which is permeable to the microwaves, esp. PTFE, and is housed in a casing of material which is impermeable to microwaves, partic. stainless steel. Temp.-rise due to irradiation is pref. detected by sensors at the inlet and outlet of the channel. Their signals can control the energy supplied by the microwaves.

Used in prodn. of a virtually anhydrous butter fat exempt of proteins. This is a prod. which can be stored for long periods without refrigeration, simply by excluding oxygen. (20pp)

COFF-★

D13

60487 D/34 ★ CH -623-994

Decaffeination of aq. acidic caffeine solns. - by electrodialysis in cell with two cation permeable membranes

COFFEX AG 31.03.77-CH-004059

(15.07.81) A23f-05/20

31.03.77 as 004059 (367WB)

Sepn. of caffeine (I) from aq. acidic solns. is carried out by electrodialysis in at least one cell having 2 cation-permeable membranes positioned between an anode and a cathode. The (I)-contg. soln. is passed through the zone between the 2 membranes, a 1st wash soln. is passed through the zone between the anode and its adjacent membrane to maintain the necessary pH for electrodialysis, and a 2nd wash soln. is passed through the zone between the cathode and its adjacent membrane to remove the (I) collecting in this zone.

The process can be applied to aq. extracts of green coffee, tea or roasted coffee, or to aq. solns. extracted from coffee or tea waste products. The 2-membrane cell selectively removes (I) while other coffee or tea solubles (esp. chlorogenic acid) remain in the soln. (4pp)

LINM★

D13

60660 D/34 ★ DE 3004-724

Protein-contg. material prepn. by aerobic microorganism fermentation - and waste gas supply for carbon dioxide assimilating plant growth

LINDE AG 08.02.80-DE-004724

C03 (13.08.81) C12n-01

08.02.80 as 004724 (200BZ)

Protein-contg. materials are prepd. by cultivating microorganisms on substrates (A, C, and H) and H₂ gas, and the waste gas is used for carbon dioxide assimilating plant growth.

aerobic conditions, in an aq. medium contg. O₂, C- and H-contg. materials, in a fermentation vessel. Novelty consists in drawing the waste gases formed in bio-mass cultivation out of the fermentation vessel and charging them to a chamber in which are grown CO₂-assimilating plants.

The plants can be cereals, which supply a high starch quantity, or protein-rich algae, pref. of Chlorella and Spirulina species. In a pref. process, the waste gases are charged to an algae-contg. nutrient medium, suitable for algae cultivation.

The prods. are used in human- and animal nutrition. In charging the CO₂-contg. waste gases to plants utilising CO₂ for protein and/or carbohydrate synthesis, protein prodn. is increased and a better use is made of C-sources. (8pp)

THOD

D13

70483 S/44 = DS 2119-351

Sterilisation of foodstuffs

THOMASSEN & DRIJVER VERB 26.04.70-NL-006062

(13.08.81) *BE-766-249 A23i-03 + A23b-04/14

21.04.71 as 119351 (922BZ)

Poultry, esp. roast chicken packed in closed containers is sterilised by incorporated 0.05-5 vol.% (of the container) ethyl alcohol before sealing the container and heating. The heating time is considerably reduced thus avoiding any changes in the poultry's taste or appearance. DS(3pp)

BENC

D13

03828 C/03 = EP G006-592

Poly:alcohol esp. xylitol prepn. - with decolouration and ion exchange of sugar solns. and poly:alcohol solns. in same ion exchange plant

BENCKISER-KNAPSACK 22.06.78-DE-827477

E17(D17) (12.08.81) *EP--6-592 C07c-29/74 C13k-13

22.06.78 as 102074 (922HM) (G) DE1165565 DE2418800 1.Jnl.Ref E(AT BE CH DE FR GB IT LU NL SE)

Polyols, esp. xylitol, is obtd. from hardwood trees or annual plants by decompsn. with dil. mineral acids at temps. above 100 deg.C decolourising and de-ionising the soln. (contg. salts and acetic acid as well as the sugar) with ion exchangers in the same unit and then hydrogenating. This reduces the number of stages and simplifies the process. (12pp)

ORAA-

D13

66392 C/50 = EP --33-324

Dried colostrum - useful as a feed additive to increase wt. gain and appetite

ORAA SARL 29.07.80-FR-016687 (03.08.79-FR-020015)

B04 C03 (12.08.81) *BE-884-610 A23c-09/20 A23k-01/08

31.07.80 as 901463 Based on WP8100342 (520WB) (F) FR1569698 J55003721 FR2399843 DS1069828 FR-398941 7.Jnl.Ref E(AT CH DE GB LI LU NL SE)

A dry colostrum extract is prepd. by pasteurising the colostrum, concentrating it to 250-400 g/litre, and drying to 200-250 g/litre of starting material.

The colostrum is taken, in the first days following the birth, from ewes, goats, asses, buffaloes and cows, and may be stored at 0-10 deg.C for up to 6 months.

an evaporator. It may then be dried by lyophilisation or by reverse osmosis. The products may be subjected to a Maillard reaction, giving a brown colouration caused by the redn. of sugars by amino acids. Product may be treated with additives and vitamins, if desired. The extract is used as a feed supplement. It increases the rate of wt. gain of mammals, birds and fish; and is of particular use in raising calves. (14pp)

DAKA-★ D13 60723 D/34 ★EP--33-519
Mfg. powdered protein prods. from animal material - by grinding, heat treating, fractionating and drying, useful as feed additives

DAKA DANSKE ANDELSS 31.01.80-DK-000406

C03 (12.08.81) A23j-01 C09h-03 C11b-01/12

29.01.81 as 100648 (1251KB) (E) No-Citns. E(BE DE FR GB NL)

Powdered protein prods. are prepd. from animal raw material by first mincing or grinding, then heat treating pref. with release of steam, then bone and meat meals are mechanically sepd. and powdered-dried with subsequent removal of bone pieces to give a first powder (A'). The fluid phase is sepd. into a sludge (recycled), a fat phase (purified to technical fat) and an aq. size phase. This last phase is spray-dried to give a second powdered prod. (A).

Pref. the size phase is conc. with release of steam, then the concentrate sepd. to recover more sludge and fat. Pref. the first sludge is recycled to heat-treatment, and the second to the fluid phase.

The prods. are free-flowing and non-lumping, (A') has 42-47 wt.% protein content (comparable to conventional meat meal); (A) has 70-80 wt.% protein and is useful as fodder supplement; it also has gluing properties. (14pp)

CORP ★ D13 60776 D/34 ★EP--33-635
Cheese spreads prodn. with good shelf life - by mixing soft-medium cheese with edible fat, water and stabiliser at high temp. cooling homogenising and packing

CPC INTERNATIONAL INC(KNOR-) 30.01.80-GB-003124

(12.08.81) A23c-19/08

29.01.81 as 300381 (513AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Packaged cheese spread contg. as sole major cheese component a natural, soft-to-medium cheese, is made by (a) combining the natural cheese with an edible fat, at least one stabilising agent, water and opt. salt, in relative proportions to provide the desired final consistency; (b) mixing the mass whilst raising the temp. to 125-130 deg.C, and maintaining the mixing at this temp. for 2-10 mins; (c) cooling the mass to 75-85 deg.C and homogenising the mixt. (d) loading the homogenised mixt. into containers and (e) sealing the containers.

The edible fat used is pref. butter and the stabilising agent is one or natural gums or gelatin, esp. locust bean gum, tragacanth, xanthan, gelatin, or mixts. of these.

The cheese spreads have good shelf life and retain the flavour of the original cheeses, e.g. camembert or nuworld cheeses. (21pp)

CART-★ D13 60786 D/34 ★EP--33-670
Automatic demoulding of soft paste cheeses such as camembert. uses vacuum suckers to hold cheese as mechanical grippers handle mould

CARTIER SA 04.02.80-FR-002341

P13 (12.08.81) A01j-25/12

09.01.81 as 400020 (448HM) (F) FR1333833 FR1564629 DE2834544 FR1421060 FR2011620 E(AT BE CH DE GB IT LI NL SE)
Industrial process and a plant installation are for demoulding soft paste cheeses which have been formed in vertical cylindrical moulds. The moulds are open at both ends and rest on a horizontal mould plate.

The mould and its cheese are raised clear of the plate simultaneously but by independently operable means. A carrier tray or sheet is located in place of the mould plate. The cheese is discharged downwards to free it from the mould by relative axial displacement.

The mould is pref. held by mechanical grippers while the cheese is handled by a vacuum suction cup. The grippers and suction cup can be actuated independently and vertically displaced, each wrt. the other.

An intermittent horizontal conveyor is pref. employed to position and remove mould plate and carrier tray. Operations of the conveyor, suction cup and mechanical grippers etc. are pref. sequenced automatically by a programmed controller.

Used for demoulding cheeses, partic. of the soft paste variety such as camembert and brie. Fully mechanised prodn. with demoulding action which minimises damage to wall surface of cheese as it slides from mould. (17pp)

DIST-★ D13 60794 D/34 ★EP--33-694
Stabilised animal protein hydrolysate compn. prodn. - by mixing with milk prod. then drying, useful in feeding and cosmetics

DISTRIVAL SA 01.02.80-FR-002279

B04 C03 (D21) (12.08.81) A23c-09/15 A23j-03 A281-01/30 A61k-07/48 A61k-37/18

29.01.81 as 400140 (1251HM) (F) No-Citns. E(BE CH DE GB IT LI NL SE)

Prodn. of stabilised hydrolysate from animal proteins comprises first gradually adding the hydrolysate (A) to a milk-based prod. (B), with vigorous stirring, then homogenising the resultant mixt. This mixt. is dried at a temp. not over about 65 deg.C. Pref. (B) is concn. milk (whole or skimmed), ultrafiltration retentate etc. and (A) is derived from fish, pancreas, blood, milk prods. etc. having a dry matter content of 60-70%.

Also claimed are the stabilised hydrolysates themselves and foods and cosmetics contg. them. Specified are cosmetics consisting of a conditioned syrup in a polyalkylene, esp. polyethylene, glycol.

The prods. are useful as dietic foods and in therapeutic feeding (e.g. for control of obesity, hyperlipoproteinaemia or protein depletion), and have an amino acid content of at least 95% that of the initial hydrolysate. They can be handled without fear of microbial contamination or oxidn. (14pp)

BATT ★ D13 60802 D/34 ★EP--33-718
Heat resistant chocolate compsns. - contg. an emulsion of water in fatty substance, at least part of which is in solidified form

BATTELLE MEMORIAL 30.01.80-CH-000731

(12.08.81) A23g-01

27.01.81 as 810021 (513AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Chocolate compsn. for making heat resistant chocolate articles comprises dispersed in the mass (in addn. to the usual ingredients for chocolate) particles consisting of an emulsion of 'water in a fat substance', at least part of the fat substance being in solidified form. Pref. the emulsion contains 30-80 wt.% water and comprises 2-10 wt.% of the compsn. The emulsion is esp. in the form of a powder of particles of the fat substance in the solid microcrystalline state, or a fluid cream contg. emulsified water droplets with part of the substance in solidified form and the rest in liq. form. Pref. the emulsion is dispersed into a mass of conged chocolate at a temp. where the mass, although in fluid form, is in a condition of melt equilibrium with the crystallisation germs of the fat substance, esp. 26-32 deg.C.

The modified chocolate can be used, e.g. for casting shaped articles or for coating biscuits, sweets, cakes, etc. The prods. have excellent resistance to tropical conditions. The process does not require processing stages outside those normally used for chocolate mfr.; does not introduce materials foreign to chocolate making; and does not affect the taste/feel of the chocolate. (17pp)

BONZ/★ D13 60810 D/34 ★FR 2472-347
Ice cream mixing bowl for small batch prodn. - uses agitator comprising thin film applicator paddle and scraper

BONZAGNIG 27.12.79-FR-031808

(03.07.81) A23g-09/12

27.12.79 as 031808 (448KB)

An ice cream mixer comprises an externally refrigerated, vertical cylindrical bowl with coaxial, rotary agitator(s). The agitator comprises a spring-loaded scraper for the inside of the circumferential wall, as well as a mixing paddle which is angularly offset from the scraper w.r.t. the axis of rotation.

The bottom of the paddle has a lipped edge projecting in the direction of rotation in order to scrape the bottom of the bowl. The paddle also has a vertical, outer edge which runs close to the circumferential wall of the bowl, drawing out a thin film of mixt. which adheres to the refrigerated wall of the bowl. This film is removed and recycled into the mixt. by the scraper.

Used in making ice cream partic. in domestic kitchens etc. The mixer is of simple, inexpensive construction and has a wide range of applications. (9pp)

CHIN ★ D13 60811 D/34 ★FR 2472-349
Prodn. of auto-degradable starch compsns. - by mixing pre-degraded starch material with alpha amylase

CHINOIN GYOGYSZER 29.12.79-HU-CI2003

C03 (03.07.81) A23k-01/14 A23k-03 C12p-19/14

26.12.80 as 027607 (367BZ)

Prodn. of auto-degradable compsns. i.e. compsns. in which starch converts to water-soluble carbohydrates spontaneously, is carried out by (a) subjecting the starch in cereal and/or maize grains to pre-degradation such that its degradation index (DI) is 0.1210.27 to produce available starch, and mixing the available starch in finely divided form with alpha-amylase and opt. other additives. The resulting compsn. is opt. mixed with fodder to produce an auto-degradable fodder.

D 13: OTHER FOODSTUFFS -p.6

Specifically, J is determined by suspending the pre-degraded material in water and determining the viscosity after 3 min. in the presence (A) and absence (B) of an alpha-amylase enzyme having an activity of 5000 SKB/g; J is defined as the ratio A/B.

The compsn. can be used as animal feed additives or for making silage. (29pp)

CADB D13 80959 B/33 #GB 1595-706
Cocoa butter substitute - made by partial hydrogenation of a vegetable fat followed by thermal crystallisation to remove high melting glyceride(s)

CADBURY INDIA LTD 01.02.78-NL-001145 (01.02.78-GB-004124)

(19.08.81) *NL7801-145 C11c-03/12

01.02.78 as 004124 (931BZ)

A modified vegetable fat is produced by partially hydrogenating a refined, bleached and deodorised vegetable fat contg. 16C, 10C and 20C fatty acid glycerides in the presence of a metal hydrogenation catalyst.

A hardened fat is obtd. which is then subjected to thermal crystallisation at 30-40 deg.C to remove higher melting glycerides until the remaining hardened fat has a m.pt. of 30-40 deg.C. Pref. the vegetable fat used is a fat of sal seed, mowrah, phulwara or mango kernel.

The prod. is esp. used to replace at least part of the cocoa butter present in chocolate and other confectionery prods. (4pp)

CADB D13 80958 B/33 #GB 1595-734
Cocoa butter substitute - made by partial hydrogenation of a vegetable fat followed by pressing to remove liq. oil(s)

CADBURY INDIA LTD 01.02.78-NL-001144 (01.02.78-GB-004125)

(19.08.81) *NL7801-144 C11c-03/12

01.02.78 as 004125 (931BZ)

Modified vegetable fat is produced by partially hydrogenating a refined, bleached and deodorised vegetable fat in the presence of a metal hydrogenation catalyst. A hardened fat is produced, which is subjected to a hydraulic pressure of 200-700 p.s.i. at a temp. controlled at 20-35 deg.C to remove oily glycerides. Pref. the vegetable fat is a fat of sal seed, mowrah, phulwara or mango kernel, and the catalyst is a supported fresh Ni catalyst.

The prod. has a high melting stearine fraction, and is capable of replacing at least part of the cocoa butter in chocolate and other confectionery prods., and raising the m.pt. of chocolate (prods.). (4pp)

ANDE- D13 19731 A/11 = GB 1596-164
Mechanically hydrolysing keratinous material esp. feathers - using an extruder with specified pressure and water content

ANDERSON INT CORP (IBEC) 08.11.76-US-739527

C03 (19.08.81) *BE-860-559 + C07g-07

08.11.77 as 046484 (903AT)

Hydrolysis of keratinous material, esp feathers, mixed with water comprises applying pressure on the mixt above the vapour pressure of the water to raise its temp above the bpt of water at atmospheric pressure whilst keeping the water in the liq phase.

The water content is pref 15-45 wt%; this is pref achieved by mechanical dewatering, if a decrease is needed or by injecting moisture during pressurisation if an increase is needed. Pref the pressure applied exceeds the vapour pressure of the water at the temp reached by 100-1500 psi.

The prods are useful in animal feeds. (6pp)

SAGA ★ D13 61130 D/34 ★ J5 6081-549
Selective prepn. of d- or l-isomer of di:peptide - by asymmetric hydrogenation of dehydro:di:peptide using rhodium complex with optically active di:phosphine ligand

SAGAMI CHEM RES CENTRE 06.12.79-JP-157374

B05 E19 (03.07.81) B01j-31/24 C07c-102 C07c-103/52

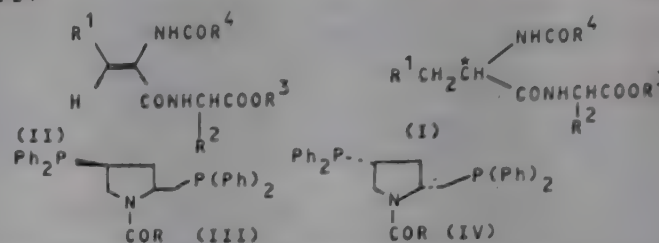
06.12.79 as 157374 (52BZ)

Prodn of dipeptides of formula (I) comprises asymmetrically hydrogenating dehydrodipeptides of formula (II) in presence of an optically active rhodium complex as catalyst having diphosphine ligand wherein R₁, R₂ and R₃ is H, alkyl or aryl; R₄ is alkyl, aryl, alkyloxy or aryloxy. Specifically the optically active diphosphine ligand is represented by formula (III) or (IV). Wherein R is H, alkyl, aryl, alkyloxy, aryloxy, amino, alkylamino or arylamino. Pref the ligand is (+)- and (-)-2,3-O-isopropylidene-2,3-dihydroxy-1,4-bis(diphenylphosphino)butane, esp. the ligand is (R,R)-1,2-ethanediylbis((o-methoxy phenyl)phenylphosphine).

The starting cpds (II) can be prepd by reacting alpha-acylaminoacrylic acid derivs with L-amino acid esters in DMFA in presence of DCC, 1-hydroxybenztriazole, and N-methylmorpholine. The reaction of (II) to (I) is carried out in presence of 10 power minus 5 to 10 power minus 2 mol%. pref 10 power minus 4 to 10 power minus 3 mol% of said ligand in a

pressure of 1-100 atm., pref 1-20 atm at 0-100 deg C, pref room temp to 50 deg C.

By selection of the optically active ligand, the newly produced amino acid portion can selectively be fixed to either D- or L-isomer. (10pp)



KINJ- ★ D13 81210 D/34 ★ J5 6082-076
Granulation of powdered spices - includes mixt. with liq. poly:ol or sugar to preserve them

KINJIRUSHI WASABI K 11.12.79-JP-160599

(04.07.81) A23l-02/22 B01j-02/16

11.12.79 as 160599 (42NS)

Powdered spice (I) is granulated by being mixed with liq. polyalcohol (II) or liq. sugar (III). The amt. of (II) or (III) used should be 1-50 pts. wt. per 100 pts. wt. (I). (II) or (III) is pref. added to (I) by spraying. The mixt. is pref. granulated using a rolling granulating machine, etc. Mannitol, sorbitol, arabitol, glycerol, etc. are pref. as (II). An isomerised sugar soln. is pref. as (III).

The method is suitable for onions, garlic, mustard, horseradish, etc.

In an example, a powdered mustard (50 Kg) was mixed with isomerised liq. sugar (glucose, 37.51%; fructose, 31.99%; oligosaccharides, 5.80%; water, 24.70%; ash, 0.02%; pH, 5) and granulated. The granulated prod. had 0.70% of spice-components, while granules produced by mixing the same mustard with water had only 0.40% of spice-components. (4pp)

SHIB- ★ D13 61356 D/34 ★ J5 6083-407
Bag for protecting fruit from fungal attack - comprises a fruit bag treated with ortho methoxy:cinamaldehyde

SHIBATAYA KAKOSHI K 12.12.79-JP-161351

C03 P13 (08.07.81) A01g-13/02 A01n-35/02

12.12.79 as 161351 (KB)

A bag for protecting fruits from damage by fungal attack is obtd by treating usual fruit bag with ortho-methoxycinnamaldehyde. Usually, a paper bag is coated with an aqueous solution of 500 to 1000 ppm ortho-methoxycinnamaldehyde, dried completely, and then coated with a paraffin.

The bag treated with the fungicide ortho-methoxycinnamaldehyde exhibits a great control effect against fungal attack on various fruits even when a very small amt of the fungicide is used, or without causing any phytotoxicity even when a great amt of the fungicide is used. The fungicide can be used with insecticides such as organophosphorus cpds, etc. In addn the use of the fungicide enables one to raise the lustre of the surface of fruit, and to upgrade the commercial value of the fruit. (6pp)

AJIN D13 46510 B/25 = J8 1031-940
Water-swelling dried food of high protein content - prepd. by freeze-drying a mixt. of vegetable protein, fat, water and swelling agent

AJINOMOTO KK 18.10.77-JP-124690

(24.07.81) *J54059-351 A23l-01/20

18.10.77 as 124690 (42RH)

Dried food (I) of high protein content is prepd. by freeze-drying a mixt. (II) of 10 wt.pts. of vegetable protein and/or albumin-contg. animal protein, 2-40 wt.pts. of fat, 30-140 wt.pts. of water and 0.01-5 wt.pts. of swelling agent, such as glycerin, propylene glycol and sorbitol.

(I) can be swelled easily with water and changes to a soft soy bean curd-like (Tofu) food. Specifically, after pH of (II) is adjusted to 6.0-8.0, (II) is agitated to prepare emulsion. The emulsion is frozen at -50 to -10 deg.C, e.g. (-40 to -20 deg. C) and dried, opt. after treatment at 50-150 deg.C. Ascorbic acid, alginic acid, polysaccharide, emulsifier and other additives may be added to (II). (J54059351) (3pp)

DYNL D13 17383 V/10 = J8 1031-944
Flavouring agents - combined with inactive material which prevents absorption or metabolism of the agent

DYNAPOL (DYNA) 25.10.72-US-300857 (25.10.72-US-300499)

A97 (24.07.81) *BE-806-519 A23l-01/23

24.10.73 as 119063 (RH)

The composite agent, which is non-absorbable and non-nutritive, comprises an active flavouring agent (I) covalently bonded to a cpd (II) to give a non-metabolisable, non-absorbable product

preventing the passage, of (I) through the mucous of the gastrointestinal tract. Toxicity, secondary effect and calorific effects due to (I) are thus prevented. (II) is pref. a hydrophilic polymer of mol.wt. 2500-250000. (J49100266) (12pp)

BIDE-★ D13 61618 D/34 ★NL 8000-015
Peeling potatoes and other tubers - by erosion of the skin with a gas stream contg. ice particles
BIDE ECO BV 03.01.80-NL-000015
P28 (03.08.81) A23n-07/02 A47j-17/14
03.01.80 as 000015 (513DJ)

In a process for removing the skin from vegetable tubers, esp. potatoes, the skin is eroded away using a gas stream, esp. an air stream, contg. a distribution of ice particles. Pref. the ice is formed on a wetted, rotating cooled cylinder and the resulting ice is scraped off and mixed with the gas stream, opt. after comminution. Pref. the water used to make the ice contains ca. 0.1% of salt, esp. NaCl.

In another embodiment, the water used for making the ice particles is cooled under press. to below 0 deg.C and injected into the gas stream, which is pref. at below 0 deg.C to form the ice particles in situ. Pref. the gas stream is at or above 0 deg.C when it contacts the vegetables. The vegetables to be peeled are pref. mounted on rotating axes which move to and fro whilst the peeling process is being carried out.

Process allows peeling of potatoes and other tubers with minimum wastage, low consumption of water, and without using chemicals such as caustic soda, which spoil the appearance of the vegetables. (7pp)

VALO-★ D13 D/34 ★RO --75-917
Vegetable-based foodstuffs heat treatment - by heating in oil and vegetable juice, homogenising with meat, etc., and sterilising
INST VALORIF LEGUME 14.07.78-RO-094670
(30.03.81) A231-01/20

INCH-★ D13 D/34 ★RO --75-920
Aqueous root vegetable soln. extraction - by autoclave treatment at three pressures in the range 1 to 4 atmospheres in succession
INST IND CHIM ALIM 18.06.79-RO-097875
(30.03.81) A231-01/04

NUTR-★ D13 D/34 ★RO --76-324
Coarse fodder silo storage - by alternately stratifying with animal waste admixed with aq. soln. contg. molasses, salt and urea
INST NUTRIT ANIMALA 05.05.76-RO-085995
(30.03.81) A23k-01/10

NUTR-★ D13 D/34 ★RO --76-330
Protein-based energising fodder - contg. soluble protein, fat and sugar derived from poultry meat and viscera waste hydrolysate and whey
INST NUTRIT ANIMALA 06.10.76-RO-087918
C03 (30.03.81) A23k-01/10

CARL- D13 57578 Y/33 = SU -776-578
Automatic prod. wt. control for e.g. chocolate moulding machine - eliminates manual check-weighing and mould filling head adjustment
CARLE & MONTANARIS 17.03.77-IT-021337
S02 (30.10.80) *BE-853-529 + G01f-11
14.04.77 as 472206 (GW)

The system comprises a mechanism which automatically regulates the weight of material filled into the mould cavities. A section of the conveyor carrying filled moulds is adapted as the weigh platform of a balance to determine the wt. of each filled mould. This actual wt. is automatically compared with a predetermined nominal wt. and the variance signalled to a mechanism which increases or decreases the delivery of the filling head into the mould cavities as necessary.

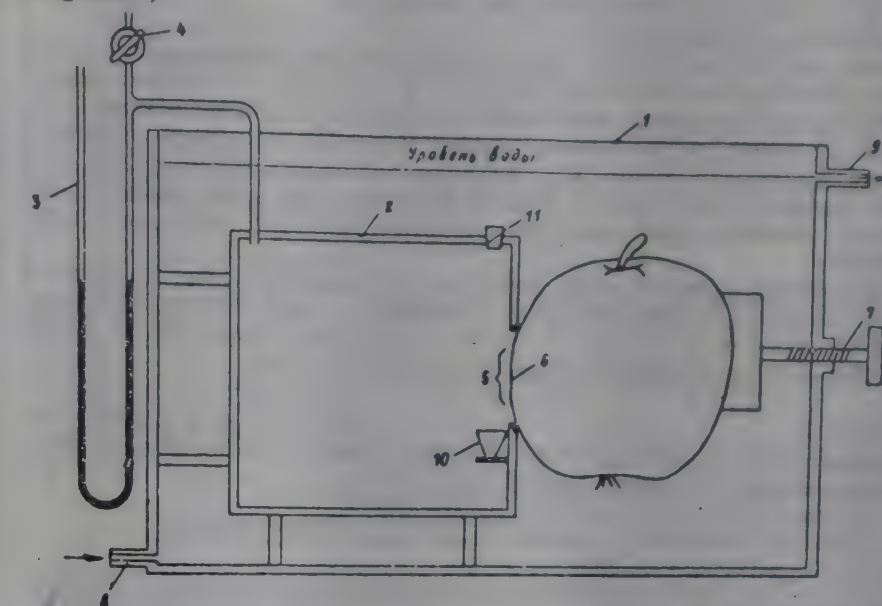
The signal is pref. directed to a motor which turns a stop screw to lengthen or shorten the stroke of a filling piston. Each empty mould is pref. weighed individually before filling so that the nominal wt. of the filled mould used as control standard is based on the actual wt. of that individual mould plus required bar wt. Bul. 40/30.10.80 (3pp)

GHOR=★ D13 61651 D/34 ★SU -782-753
Fruit skin gas permeability gauge - has chamber linked to manometer equipped with carbon dioxide absorber and set inside water-filled outer container
GEOR HORTIC VINICUL 16.05.79-SU-768664
S02 P13 (30.11.80) A01g-07
16.05.79 as 768664 (1439GW)

A fruit skin gas-permeability gauge for fruit during growth. A fruit skin gas-permeability gauge consists of two containers (1,2), one of ripening and storage, the fruit being tested, while the other is

permeability of individual sections of the fruit's surface while keeping the fruit whole, and for greater precision, by having the chamber (2) which is connected to the manometer (3) equipped with a carbon dioxide absorber and located inside the container (1) which holds the fruit.

The inner container (1) has an aperture (5) in its side, against which the fruit is held by a clamp operated by a screw (7) in the wall of the outer container. The outer container is filled with circulating water at 25 deg.C, and the varying pressure in the inner container (2) is checked every 15 mins. using the manometer (3) and control valve (4). Bul. 44/30.11.80 (4pp) Dwg.No.1)



CONF=★ D13 61985 D/34 ★SU -786-963
Jellied confectionery prodn. - by mixing powdered polyvinyl alcohol with water allowing to swell and adding sugar soln. and syrup with boiling and mixing

CONFECTION IND RES 07.02.79-SU-724524
A97 (25.12.80) A231-01/06

07.02.79 as 724524 Add to 424554 (29GW)
Method for producing jellied confectionery articles, according to Parent Cert. No.424554, in which the ingredients were mixed in accordance with the recipe, with addn. of polyvinyl alcohol soln. The resulting mixt. was boiled, shaped and cooled. A sugar soln. of PVA with a mol. wt. above 5000 and an acetate gp. content of at most 2.5% was used. The soln. was prepd. by moistening 2-4% PVA (based on the wt. of the jellied mass) in 60 wt.% of 1 20% sugar syrup. The gelling duration of the articles is shortened and the structure of the mixture is consolidated, by boiling it and then beating it to a density of 1200-1300 kg/cu.m. (2pp)

GEVA/ D13 76403 A/43 = US 4281-593
Machine for cooking and expanding cereal prod. - uses fluid power cylinders to apply die pressure and to load and discharge mould cavity

GEVAERTO 22.06.78-BE-868361 (22.06.78-BE-188771)
+ P28 (04.08.81) *BE-868-361 + A47j-27/08
22.06.79 as 051232 (006HM)

Appts. for making expanded-cereals food prods., comprises a cooking mould with a cup-shaped die closable by a punch operated by a jack, a stop being provided which limits the movement of the jack into the mould-closed position.

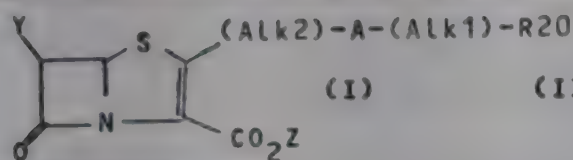
Cereals being cooked and expanded in the mould are not under jack pressure which could oppose expansion. (7pp)

BRIM★ D13 62143 D/34 ★US 4282-150
2,6-Di:subst. penem cpds. useful as antibacterial agents and feedstuff supplements
BRISTOL MYERS CO 21.09.79-US-077886 (18.12.78-US-968663)
B02 C02 (04.08.81) C07d-499

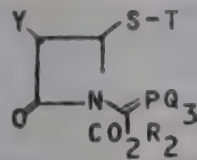
21.09.79 as 077886 (916HM)
6-Alpha-hydroxyethyl-2- R20-(Alk1)-A-(Alk2)-penem-3-COOZ
derivs. of formula (I) and their salts are new. In (I) Z is H or a readily clearable ester protecting gp., Alk1 is (1-2C) alkylene opt subst. by (1-4C) alkyl; A is O, S, SO, SO2 or NR21; R21 is H, lower alkyl, phenyl or phenylalkyl; Alk2 is (2-4C) alkylene; R20 is -NHOH, -NO2 or -N(R22)(R23); R22 and R23 are H or lower alkyl, Y is -CH(OH)CH3.

Cpds. (I) where additionally Y is H or a member of a list of multibudinous substituents are also new. Intermediates of formula (II) are new. In (II) Q is phenyl or lower alkyl; R2 is a readily removable protecting group; T is -CO-(Alk2)-A-(Alk1)-R20

Cpds. (I) are used as antibacterial agents and animal feed supplements. (42pp)



(II)

**NIOF**

D13

46538 C/27 = US 4282-163

Prod'n. of hydrogenated fatty acid - by hydrogenation in presence of catalyst and reducing metal

NIPPON OILS & FATS KK 19.12.78-JP-157101

E17 (04.08.81) *DE2951-190 C11c-03/12

11.12.79 as 102533 (963WB)

Prod'n. of hydrogenated fatty acids comprises hydrogenating a fatty acid, oil or fat in presence of a catalyst, a reducing metal and a boric acid gpd., and distilling the crude hydrogenated fatty acid, or splitting the hydrogenated oil or fat into crude acid and then distilling. Pref. the hydrogenation is effected in the additional presence of a heavy phenolic cpd; alternatively the heavy phenolic cpd. may be included and the boric acid cpd. omitted.

Reducing metal is pref. Mg, Ca, Al, Zn and/or Sn. Boric acid cpd. is pref. orthoboric acid, metaboric acid, tetraboric acid, boron oxide or an ester or salt of these boric acids. Obtd. acids have a lighter colour and improved stability. (8pp)

MERI

D13

62181 D/34 ★ US 4282-219

Antibacterial cephalosporin analogues - with 7-amino Gp. subst'd. by quaternary N-contg. heterocyclic Gp.

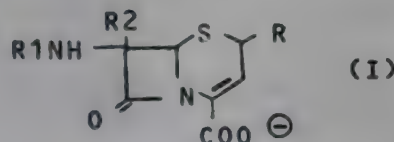
MERCK & CO INC 01.08.79-US-062827

B02 C02 E13 (D22) (04.08.81) A61k-31/54 C07d-501/14

01.08.79 as 062827 (367AT)

2-R-7-R2-7-R1NH-3-cephem -4-carboxylates of formula (I) and their salts and esters are new. R is H or Me; R2 is H or OMe; R1 is: (a) 1-R'-pyridinium-2- or -4-yl, 3-R'-thiazolium-2-yl, 1-R'-pyrimidinium-2- or -4-yl, 3-R'-benzothiazolium-2-yl, 3-R'-benzoxazolium-2-yl, 2-R'-isothiazolium-3-yl or 2-R'-isoxazolium-3-yl, each opt. subst'd. by 1-3 R3 gps.; (b) 1,3-di-R'-imidazolium-2-yl; or (c) quinolizinium-2- or -4-yl, 6,7,8,9-tetrahydroquinolizinium-2- or -4-yl, indolizinium-2- or -4-yl, or 6,7- or 7,8-dihydroindolizinium-2- or -4-yl, in which each ring is opt. subst'd. by 1-3 R3 gps.. R' is (i) 1-6C alkyl opt. subst'd. by Cl, F, OH, 1-6C alkoxy, COOH, NH2, SO3H or mono- or di(1-6C alkyl)amino, or (ii) 7-12C phenylalkyl or phenylalkenyl opt. subst'd. by Cl, F, COOH, NH2, CN, OH or SO3H; R3 is Cl, F, OH, COOH, SO3H, Cn, NH2, mono- or dialkylamino, alkoxy, or 1-6C alkyl opt. subst'd. by COOH, CN, 1-6C alkoxy, Ph or PhO.

(I) are antibiotics active against Gram-positive and -negative bacteria. They can be used as medicaments, animal feed additives, food preservatives, disinfectants and industrial bactericides. (31pp)

**UPJO**

D13

62184 D/34 ★ US 4282-228

Animal feed compsn. for increased wt. gain etc. - contg. 2,4-diamino-5,6-di:subst'd.-pyridine n-oxide

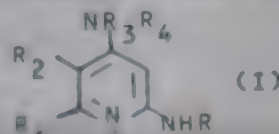
UPJOHN CO 23.06.80-US-161945

C02 (04.08.81) A61k-31/50

23.06.80 as 161945 (1248BZ)

Animal feed compsn. comprises a 2,4-diamino-5,6-disubst'd.-pyridine N-oxide of formula (I) or its acid-addn. salt, together with a nutrient feed. In (I) R is H, R5, COOR5 or lower acyl having up to 5C; R5 is 1-8C alkyl, 2-8C alkenyl or 3-7C cycloalkyl; R1 is R5 or NHR6; R6 is H, COOR5 or acyl having up to 5C; R2 is H, R5, Br or Cl; R3 and R4 are H, 3-8C cycloalkyl opt. subst'd. by a 1-5C alkyl at each of the 2-7 ring C atoms, or R5, 2-8C alkenyl or Ph-(1-4C)alkyl opt. ring subst'd. by 1 or 2 Cl, F, Br, I, R5, OR5 or CF3, except that R3 and R4 are not both H; or NR3R4 is a 4- to 8-membered heterocyclic ring contg. 1 or 2 N, O or S and opt. subst'd. on 1,2 or 3 ring C atoms by R5.

The compsn. cause increased prodn. in meat-producing, egg-laying and milk-producing animals; with increased rate of wt. gain, increased wt. gain, increased milk prodn., enhanced wool prodn., increased rate of egg laying and increased feed efficiency. Cpds. (I) are disclosed in US4021562. Feeds contain (I) to provide 0.001-10 mg/kg daily per animal. (5pp)

**GENO**

D13

29304 D/17 = US 4282-254

Improving the palatability of dog food - by adding and amino acid mixture

GENERAL FOODS CORP 04.10.79-US-081975

C03 (04.08.81) *EP--26-985 A23k-01

04.10.79 as 081975 (982PW)

A nutritionally balanced dog food consists of fat, protein, carbohydrates, vitamins and minerals and also contains an amino acid selected from L-tryptophan, L-arginine, L-isoleucine, L-leucine and/or L-serine in an amt. of 0.001-0.8 (0.005-0.5)%, the amt. being sufficient to improve the palatability of the dog food to the dogs.

Pref. the dog food has a moisture content of less than 15 wt.%, 15-50 wt.% or more than 50 wt.%. The amino acid is either incorporated internally into the food or coated on the exterior of the food. (5pp)

STAR

D13

62196 D/34 ★ US 4282-256

Prepn. of animal feed supplement - by aerating fish cannery water, precipitating a sludge and aerating

STAR-KIST FOODS INC 22.10.79-US-087080

C03 (D12) (04.08.81) A23k-01/10

22.10.79 as 087080 (1248KB)

Prepn. of animal feed involves aerating fish cannery waste water until the water is satd. with air, and then sepg. the water with an air flotation cell in presence of a first polyionic polymer and a flocculating agent, to give a sludge fraction concnd. in fat and protein, a clarified water fraction and a grit fraction.

The sludge fraction is aerated and then dewatered by centrifugation in presence of a second polyionic polymer (of opposite charge to the first), and an antioxidant is added to prevent oxidn. of lipids. It is dried at low temp. in vacuo, and blended with 1:4-1:1 by vol. of bulk carrier to give a dry particulate prod.

The aeration promotes growth of yeast and non-toxic bacteria to improve the colour, odour and texture of the prod. and enhance its feed value. (6pp)

FORK

D13

62197 D/34 ★ US 4282-258

Moulding edible items from moist edible material - in which the material is sucked into a mould and transferred on a cold plate for further processing

FORKNER JH 06.08.79-US-063821 (03.04.78-US-892670)

(04.08.81) A231-01/04

06.08.79 as 063821 (525NS)

Mfr. of edible items from moist edible material, e.g. pieces of onion, comprises forming a bed of the material, picking up material from the bed by a suction mould, applying and setting a binder to the material in the mould, and finally removing the item so formed from the mould by contacting the exposed face of the item with a cold plate, to which plate the item preferentially adheres. Pref. the plate is metal and is at a temp. below 0 deg.C.

The item can comprise larger amts. of edible material and smaller amts. of binder; giving an enhanced flavour. (12pp)

FMCC

D13

62198 D/34 ★ US 4282-260

Inhibiting the prodn. of clostridium botulinum enterotoxin - in smoked meat prods., by addn. of hypo:phosphite s) but redn. in nitrite(s)

FMCCORP 14.04.80-US-140328

E37 (04.08.81) A23b-04/02 A231-01/31

14.04.80 as 140328 (478AT)

The prodn. of enterotoxin from Clostridium botulinum is inhibited, and also the formation of nitrosamines (I) from nitride salt in smoked meat prods. is reduced on heating by incorporating into the meat hypophosphorous acid (II) (or Na, K, Ca or Mn salt) and less than 120 ppm of an alkali metal nitrite.

Amt. of (II) added is 1000-3000 ppm (pref. 3000 ppm if no NaNO2 used; pref. ca 1000 ppm if 40 ppm NaNO2 present).

Method not only effectively preserves meat by preventing the growth of C. botulinum, but also allows considerably reduced amts. of nitrite preservative to be used. (5pp)

GENM

D13

62200 D/34 ★ US 4282-262

Two-packet dessert mixes - for aeration and static freezing to afford ice cream-like desserts

GENERAL MILLS INC 04.03.80-US-127028

(04.08.81) A23c-23 A23g-09/02

04.03.80 as 127028 (478AT)

2-Packet dessert mix consists of (all by wt.): (a) 15-35% (of mix) of a dry blend contg. (by wt. of (a)) 50-70% of a nutritive carbohydrate sweetening agent (I), 3-8% non-fat dry milk solids (II), 1-2% whipping agent (III), and 9.1-1.2% of a stabiliser gum (xanthan, carrageenan, guar or mixts.); and (b) 65-85% (of mix) of a concd. milk blend fraction contg. (by wt. (b)) 1-9% fat, 17-21% non-fat milk solids (IV), 1-7% (I), 0.001-0.1 % casein reactive gum (V) (Kappa carrageenan, xanthan, guar or mixts.), 0.01-0.1 %

The milk blend fraction (b) has viscosity 20-25 cp. and whey protein N2 value 1-1.8.

The dairy based dessert compsn. is free of conventional emulsifiers and specifically tailored emulsifier/stabiliser systems, but on aeration and subsequent static freezing shows mouth-feel, body and texture similar to commercial ice-cream, and enhanced heat shock stability. In addn., the compsn. is stable to storage. (10pp)

NEST D13 80835 C/35 = US 4282-264
Removing bitter components from protein hydrolysate - using ligneous plant adsorbent, pref. carob pods
 SOC ASSIST TECH NES 26.01.79-CH-000788
 (04.08.81) *EP-14-362 + A231-02
 23.01.80 as 114681 (931HM)

Citrus fruit extract or juice is debittered by contact with an adsorbent comprising desugared carob particles at 10-60 deg.C. The adsorbent is preheated by washing with an acid and/or steam stripping, and has a particle size of 0.3-5 mm dia.

Prei. the contact is made for 5-60 mins. and 10-400 ml of extract or juice are contacted per g. of adsorbent. The adsorbent is placed in a column through which the extract or juice may percolate.

The extract or juice can esp. be steam stripped to remove its aromas, and its solids removed before contacting, then recombined after debittering. (2pp)

BRIM D13 55647 D/31 = US 4282-265
Easily assimilated fat compsn. for infant feeding - contg. oleic, palmitic and linoleic acids in similar proportions to human milk
 BRISTOL MYERS CO 14.01.80-US-112041
 (04.08.81) *GB2067-587 A23d-05
 14.01.80 as 112041 (982WB)

Fat compsn. consists of a mixt. of selected vegetable oils contg. 20-50 wt.% palm oil, 10-45 wt.% of a lauric acid oil selected from coconut oil, babassu oil and palm kernel oil, 10-25 wt.% of an oleic acid oil selected from oleic oil and olive oil and up to 20 wt.% of a linoleic acid oil selected from corn oil, soybean oil, sunflower seed oil and safflower oil.

For each 100 pts. wt. of fatty acids present as triglycerides in the compsn. 28-46 pts. wt. are oleic acid, 18-28 pts. wt. are palmitic acid and 6-16 pts. wt. are linoleic acid. The aggregates of oleic acid and palmitic acid exceeds 50 pts. wt. The compsn. is adapted for feeding to an infant as the sole fat ingredient of a nutritionally complete liq. formula prod. and is similar to human milk. (4pp)

KOCK. D13 16027 B/09 = US 4282-319
Enzyme hydrolysis of whole grain esp. wheat - using an endopeptidase and an amylase and sepg.
 KOCKUMS CONS AB (LYCK) 22.08.78-SE-008870 (18.10.77-SE-011742)

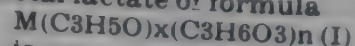
(04.08.81) *BE-871-364 A23j-01/12 C12p-21/06
 13.10.78 as 951076 (+ 01.11.77-SE-012341) (974HM)

Enzymatically hydrolysed protein and starch prods. are prepd. in situ from whole grain. The process comprises (a) crushing the grain; (b) subjecting to an enzymatic treatment in an aq. medium with an endopeptidase to transform water-insoluble proteins to water-soluble protein prods; (c) filtering and recovering a clear filtrate contg. protein products contg. 50-60% peptides having at least 25 amino acid residues, 35-45% with 5-20 residues and 4-8% with up to 4 residues; and (d) subjecting the remaining crushed grain to an enzymatic treatment in an aq. medium with at least one starch hydrolysing enzyme to transform all the water-insoluble starch fraction to water soluble starch degradation prods.

The starch hydrolysing enzyme is amylase substantially free of other carbohydrate hydrolysing enzymes. (8pp)

SUDD D13 86066 B/48 = US 4282-385
Over-acid solid metal lactate for food additive use - is prepd. by reacting aq. lactic acid soln. with metal, esp. calcium, cpd.
 SKW TROSTBERG AG 12.05.78-DE-820942
 A23 E12 (A97) (04.08.81) *DE2820-942 C07c-59/08
 25.04.79 as 033000 (963PW)

Hyperacidic, non-hygroscopic, non-caking free-flowing solid metal lactate of formula



is new where X is the equivalence of the metal M; M is Li or alkaline earth metal; n is 4-12. Specifically claimed are $Ca(C_3H_5O)_2(C_3H_6O_3)_n$ where n is 4-12; $Li(C_3H_5O)_3(C_3H_6O_3)_n$ where n is 4-7 and $Mg(C_3H_5O)_2(C_3H_6O_3)_n$ where n is 4-8.

(I) are prepd. by (a) providing dilute aq. soln. of lactic acid having a max. concn. of 50% and max. residual polylactic acid content of 0.5 wt.%; (b) reacting x+n moles of the soln. with 1 mole of a cpd. of M in stoichiometric amt. to desired prod. and (c) removing water.

Prods. are used as substitutes for liq. lactic acids in mfr. of bread and beverages. (4pp)

BEAF ★ D13 62283 D/34 ★ WP 8102-080
Reconstitutable coconut food-flavouring material prodn. - by grinding, fibre sepn., enzyme deactivation and concn. by condensing and or spray-drying

BEATRICE FOODS CO 01.02.80-US-117797

(06.08.81) A231-01/22

30.01.81 as U00141 (200KB) (E) US4098912 US3655409 US3573064 US3860725 US3899606 N(AU GB JP) E(AT CH DE FR GB LU NL SE)

In natural coconut flavouring material prodn., coconut meat is ground to average particle size no higher than 2000 microns, until a coconut flavouring liquor is sepd. from the coconut meat fibre. The sepd. liquor should contain no more than 2% fibre. The enzyme in flavouring liquid are deactivated by heating within enzyme deactivation temp. and time conditions. The deactivated liquor is conc. by (a) condensing to over 25% solids and/or spray-drying to a free-flowing powder. A conc. natural coconut flavouring material is claimed contg. a mixt. of coconut fat and coconut protein/carbohydrate in ratio 40-72:60-28.

The flavouring material is added to food compsns., e.g. confectionary, bakery prods., fruit compsns., topping.

The conc. flavouring material can be reconstituted with water to a liq. coconut flavour contg. no gritty texture or mouth feel in food compsns. (23pp)

COOP. ★ D13 62290 D/34 ★ WP 8102-106
Prodn. of biologically active product from bee drone larvae - by homogenisation with comb cells and filtration

COOP AGRIC PROD(ILIE/) 21.01.80-RO-099921

B04 C03 (D21) (06.08.81) A61k-35/64

21.01.81 as RO0001 (367DJ) (E) DE1959933 DS1007472 US3960329 1.Jnl.Ref N(AT DE GB SU US) E(CH FR)

A biologically active product is obtained by (a) collecting bee drone larvae together with their comb cells on the 10th day after laying of the non-fertilised eggs, (b) homogenising the larvae and comb cells, (c) filtering the mixt., and opt. (d) freeze drying the product. The whole process must be carried out under sterile conditions.

The product is an off-white milky fluid with a cream-like taste having a pH of 4.8-6.7, a moisture content of 65-80 wt.%, a total protein content of 10-20 wt.%, a total sugar content of 1.00-5.50 wt.%, a total lipid content of 5.00-6.30 wt.% and an ash content of 1.00-1.50 wt.%. It contains 1.0-1.3 wt.% free amino acids. Vitamins present include vitamin A, beta-carotene, xanthophyll, vitamin B2, nicotinic acid and choline.

The product contains proteins, sugars, lipids, amino acids, mineral salts, vitamins and hormone-like substances derived from the larval sexual structures. It can be used for human nutrition, as a stimulant in apiculture (giving increased yields of royal jelly), in cosmetic skin-care compsns. and as a poultry feed additive. (8pp)

See Also

D16 US 4282255
 D16 US 4282351

D16 US 4282261

D16 US 4282321

D14: FOODSTUFF MACHINERY

SOLL. ★ D14 60576 D/34 ★ DE 3004-022
Strand forming device for sweet-meat paste - with rectangular grooves and collars in pair of rolls
 SOLLICH & CO GMBH 05.02.80-DE-004022
 (13.08.81) A23g-03/06

A device for forming strands of sweetmeat paste is a pair of grooved rolls. Each pair has several grooves, separated by collars. The collars of the one enter the grooves of the other roll, leaving a rectangular gap for the sweetmeat strand. The sides of the collars act as shearing faces for the sweetmeat paste.

Two rolls on drive shafts have grooves and collars which

engage with each other and separate the sweetmeat paste into several strands. Scrapers enter the grooves and deposit these strands on an endless conveyor.

This creates a continuous production of several strands of clean shape which are ideal for further processing and have a uniform density. (14pp)

USSU ★ D14 60737 D/34 ★ EP --33-549
Drying aromatiser-contg. liq. or paste prodn. - having density and/or viscosity such as to cause protective skin-formation on carrier

HAG AG 05.02.80-DE-004162
+ Q76 (12.08.81) A23f-05/28 A23l-01/22 A23l-02/08 F26b-07
05.02.81 as 100827 (200KB) (G) No-Citns. E(AT BE CH FR GB LI NL)

In drying liq. or paste prods. contg. volatile or heat-sensitive aromatising materials, a thin prod. layer is applied to a carrier and the prod. layer is dried. In order to form a skin at the start of drying, prod. density and/or viscosity are such that layer movement relative to carrier is prevented during drying.

The examples refer to coffee extract and fruit juice concentrate. The skin prevents aromatising material escape. The aromatising materials are retained completely and unchanged in dried prod. (8pp)

CARD/ ★ D14 60845 D/34 ★ FR 2472-741
Indicator to reveal temp. rise of refrigerated prod. - esp. frozen food uses indicator material which melts at critical temp.

CARDON J P 28.12.79-FR-032168
S03 X27 (S02) (03.07.81) A23l-03/36 G01k-11/06
28.12.79 as 032168 (HM)

Indicator shows if the temp. of a prod. in refrigerated storage has exceeded a predetermined value, even when the temp. has returned to a temp. below that value. The indicating material is held in a container inside which the material changes state as the temp. rises above a critical value. The indicator can be fitted to the prod. package or in the storage cabinet. The indicator material changes from solid to liq. as the temp. rises above the critical value, and vice versa.

The container has a compartment which serves as a mould in which the indicator material is frozen to a definite shape. In operation the indicator container allows the melting material to flow into another compartment so that if refreezing takes place the temp. rise remains obvious.

The container can be made of transparent material so that the change of shape is visible. Alternatively, or in addn. the container can be made of flexible material so that change of shape distorts the container.

Used to indicate that a prod. in cold storage has undergone an unwanted temp. rise. In partic. that frozen food has been subjected to unsafe temp. conditions. The indicator change is irreversible, reproducible and provided with sufficient inertia to ignore brief exposure to ambient temp.. The indicator is reliable, small and inexpensive. (15pp)

MITN ★ D14 60958 D/34 ★ GB 2068-991
Bag contg. oxygen absorbent - comprise laminate with gas permeable sheet e.g. paper laminated to one or both sides of a microporous film

MITSUBISHI GAS CHEM IND 26.06.80-JP-U89576 (21.12.79-JP-V77432)

Q34 (19.08.81) B65d-65/40
19.12.80 as 040874 (1494AT)

The bag in which oxygen absorbent is sealed has at least part of the material comprising a bag made of a laminate. In the laminate a gas permeable sheet such as paper, cloth, non woven fabric, is laminated to one or both sides of a microporous film. The layer having the lower softening point constitutes the inner surface of the bag, and this may be either the gas permeable sheet or the microporous film.

The microporous film may have a fine openings of dia. 0.01-50.00 microns or they may be elongate with a width of 2 microns. The bag may opt. comprise a gas permeable sheet laminated to one side of the microporous film, which film is coated on the other side with a hot melt adhesive.

The laminated sheet comprising the bag is water impermeable so the bag can be packed with liquid or semi-liquid foodstuffs. The bag is heat sealable at speed and of sufficient strength. (5pp)

INLE- ★ D14 D/34 ★ RO --75-918
High protein foodstuff processor - has twin boilers, extruded with two rollers, and conveyor sheared for sectioning the product

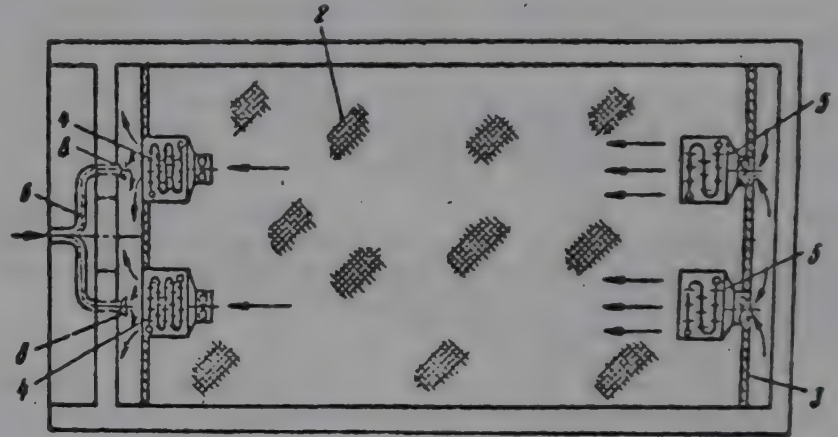
INTR IND LEGUMELOR 10.04.79-RO-097185
(30.03.81) A23j-01/14

ODRI ★ D14 61945 D/34 ★ SU -785-613
Frozen meat storage chamber - has additional air cooler and pipe for outside air supply to chamber load volume

ODESSA REFRIG IND RES(ROSM =) 19.12.78-SU-699033
Q75 (10.12.80) F25d-13 F25d-17/06
19.12.78 as 699033 (110VE)

The chamber with thermal insulation baffles (1), ceiling and wall screens (2) and (3) forming channels for air circulation with the baffles (1), and air cooler (4) has to maintain optimum humidity, an additional air cooler (5) and pipe (6) for outside air supply to load unit. The additional air cooler is placed at the air inlet to the ceiling channel. The main air cooler is placed at the air outlet from the ceiling channel.

The outside air supply pipe to the chamber load unit is mounted in the baffle in the air jet outlet zone from the air cooler. The unit is provided with at least one pair of analogous air coolers. Air coolers (4) have a smaller space between their ribbed heat exchanging pipes as compared with coolers (5). Bul.45/7.12.80 (3pp Dwg.No.2)

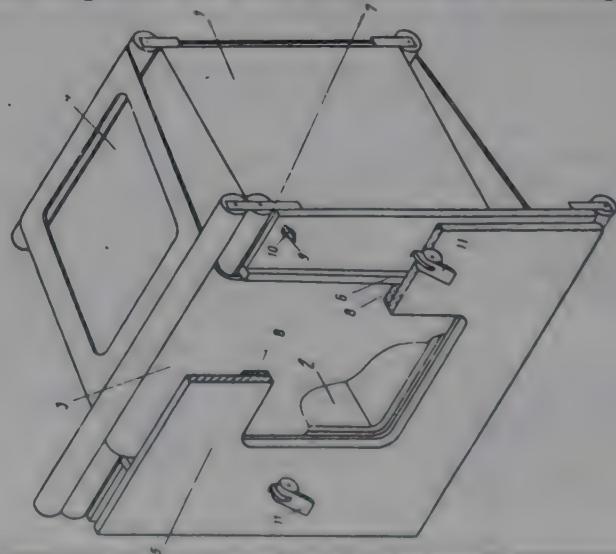


KHRA = ★ D14 61976 D/34 ★ SU -788-070
Super high frequency furnace - has working chamber with opening and door made as flexible metal belt to protect personnel from radiation

KHARK RADIOELECTRON 26.12.78-SU-703865
J09 X25 (15.12.80) H05b-06/64
26.12.78 as 703865 (110GW)

The super high frequency furnace can be used in chemical and food industries. It has a generator connected to the heating chamber (1), whose front wall is provided with loading opening (2) having a door. In order to improve personnel protection reliability from super-high frequency radiation, the door is made as a moving flexible metal belt (3).

Belt (3) envelops the heating chamber and in the working position covers opening (2). Belt (3) is provided with opening (4) whose size corresponds to opening (2). The moving belt is pressed onto the front wall by clamping frame (5). Strip (6) is made of super high frequency radiation absorbing material are placed along the belt edges on the front wall. Bul.45/7.12.80 (2pp)

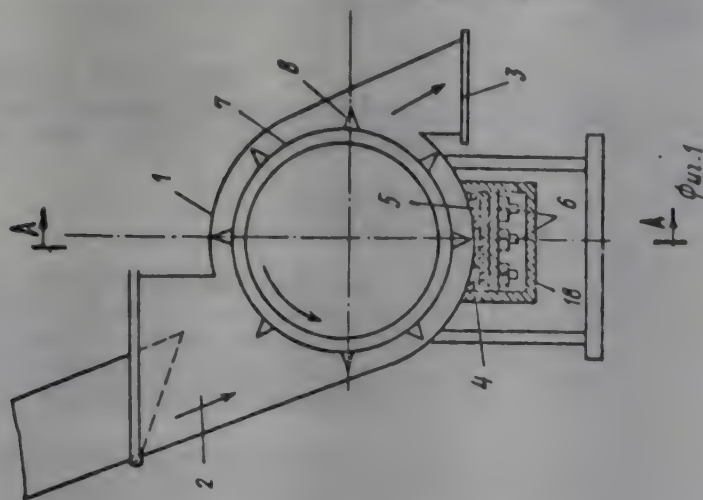


AMLA = ★ D14 61986 D/34 ★ SU -786-966
Electro-plasmolysers for vegetable raw materials - which are fed in as chips and mixed with juice coming through perforated drum, with passage of electricity through electrodes

AS MOLD APPLD PHYS 22.02.79-SU-728573
X25 (25.12.80) A23n-01
22.02.79 as 728573 (29GW)

Electro-plasmolysers for vegetable raw materials, e.g. in the food industry

plus an internal drum (7) and electrodes (4). Effectiveness is increased by completing the process in juice. The drum (7) is perforated and mounted so that it forms a regulatable channel between itself and the surrounding body. The electrodes (4) are arranged along the length of the drum in the lower part of the body, with a pipe to admit the juice disposed inside the drum. On the outside the drum are projecting pins (8) made from a dielectric material. Bul.46/15.12.80 (3pp Dwg.No.1)

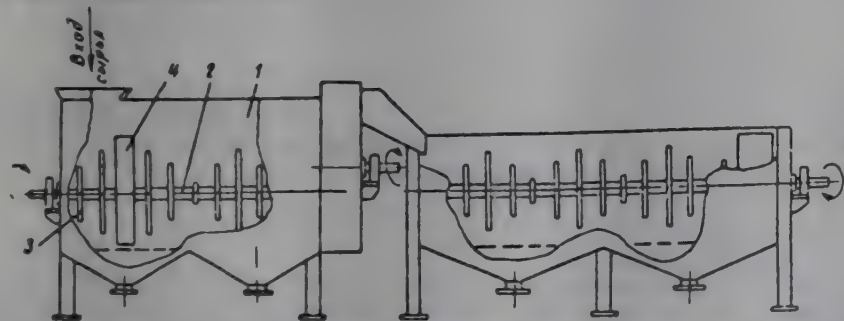


FERM = ★ D14 61987 D/34 ★ SU-786-967
Sepn. of potatoes that have formed into clumps - using container with internal drum, beaters and vanes to form grating through which potatoes pass

FERMENT PRODUCT RES 02.02.79-SU-723132
(15.12.80) A23n-15

02.02.79 as 723132 (29GW)

Equipment for separating root vegetables, e.g. potatoes, is used in the alcohol and the starch/molasses industries. It has a container (1) inside which is a drum (4) with vanes (3) which can be rotated. Congealed and adhering groups of potatoes are sep'd. into individual entities, with the removal of mechanical impurities, by placing the vanes (3) radially at the exit from the drum and connected together to form a grating. The internal surface of the drum bears fins provided along their length with fork-like grippers. The outer surface of the drum has the turns of a screw. (4pp Dwg.No.1)

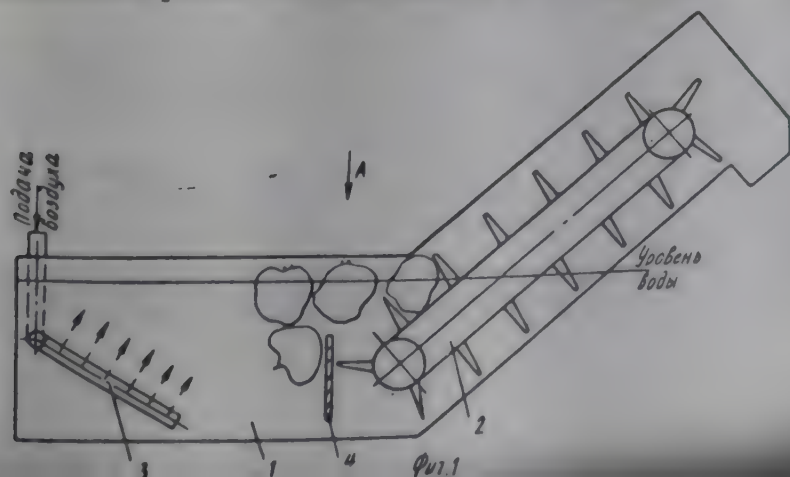


ODPR = ★ D14 61988 D/34 ★ SU-786-968
Equipment for individual supply of fruit - has bath filled with water into which fruit are tipped and blown by air-jets over submerged partition to conveyor made of plates with pins

ODESS PROVISION MAC 05.02.79-SU-723173
(25.12.80) A23n-15

05.02.79 as 723173 (29GW)

Equipment for feeding fruit one by one is used in the preserves industry during the processing of large fruit, such as gourds, watermelons, etc. It has bath (1) into which a sloping conveyor (2) is immersed, and has carriers. Large-sized fruit can be fed in while keeping them whole, by making the base of the conveyor as a collection of plates with the carriers as vertical pins. The plates



are mounted in groups in staggered rows over the width of the conveyor, with the possibility of being able to control the number of pins in each group and the distance between the groups. A movable partition (4) is installed in the bath just in front of the end of the conveyor. (2pp Dwg.No.1)

AGRI = ★

D14

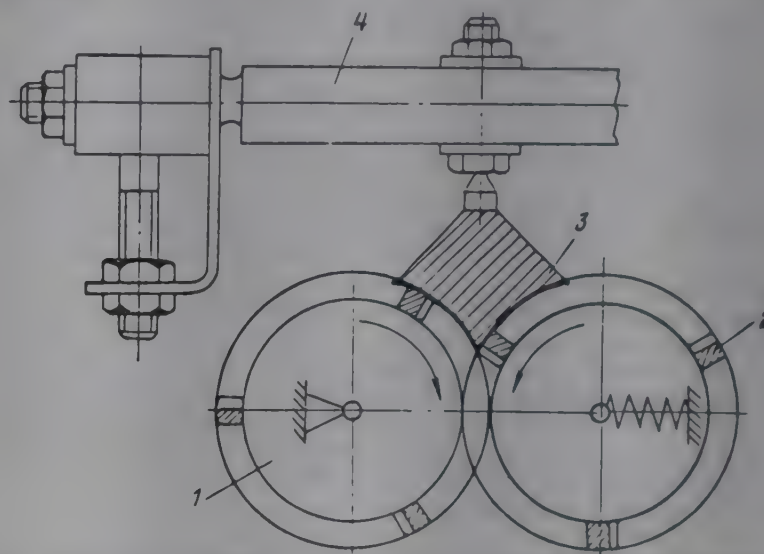
61989 D/34 ★ SU-786-969

Machine for removing leaves of onions - has pair of rollers on top of which is saddle shaped limiter which causes onions to move against helical cutter on each roller

AGRICENG RES INST 08.02.79-SU-723340
(25.12.80) A23n-15/04

08.02.79 as 723340 Add to 455736 ((29GW))

Machine for removing the leaves from onions, according to Parent Cert. No.455736 consisted of a pair of cylindrical rollers (1) which rotated in opposite directions and had helical projections (2) on their surfaces, with a saddle-shaped limiter (3) positioned above them. The latter had the same curved working surface as the rollers, but had a length greater than that of the rollers. To prevent the onion leaves slipping as they are being removed, on the side surfaces of the helical projections, and formed as a sharp angle with the limiter, is a toothed cutter, the teeth of which have sides of different lengths. The angle between the larger side of each tooth and the limiter does not exceed the angle between a line connecting the apexes of the teeth and the limiter. (3pp Dwg.No.1)



NICH/ ★

D14

62058 D/34 ★ US 4281-976

Hay pelleting device uses hay bales as feed - has pellet compression tubes behind pellet bores and means to control moisture content

NICHOLS W K 12.10.79-US-084356
P64 (04.08.81) A231-01/* B28b-01

12.10.79 as 084356 (525NS)

In a pelleting device of the type in which baled hay is pressed against an apertured die on the front face of which rotates an apertured disc having cutting knives, a tube is located behind each die aperture to impose a frictional force, and thus a compressive force, upon the pellets passing through the die apertures. Means are also provided to introduce a controlled amount of moisture into the pellets at points just behind the die.

Pellets of controlled density and moisture content are formed.

(6pp)

CART- ★

D14

62116 D/34 ★ US 4282-091

Vibrating screen particle classifier - having discharge opening adjustable in size in accordance with any change in shape of particle fraction being removed

CARTER L M MFG CO I 10.10.79-US-083412
P41 (04.08.81) B03b-04

10.10.79 as 083412 (525NP)

A device for separating particles into fractions of different sizes, one of which is the desired size, includes a vibrating screen on which a bed of fluidised particles is maintained by pressurised air blowing up through the screen. Discharge openings are formed at the sides of the screen for the particles in the desired size range, those below that range, and those above it. The opening for particles in the desired range is defined by a closure member, the position of which is movable to elongate and under the opening in accordance with an increase in air pressure through the screen. An increase in the air pressure causes a change in the shape of the mass of particles in the desired change range, which change in shape is minored by the change in shape of the opening.

By altering the opening in accordance with the change in shape

of the particulate mass, most of the particles in the mass can flow through the opening; rendering the device more efficient. (22pp)

D15: WATER TREATMENT

CELA ★ D15 60442 D/34 ★ BE -887-390
Continuous treatment of effluent water contg. organic impurities - by passage through fabric filter loaded with biomass in closed container, withdrawing gas, and liq. streams, and recycling treated liq.

CELANESE CORP 06.02.80-US-118935
(05.08.81) C02f-03/28

05.02.81 as 887396 (513RH)

Continuous biological degradation of organic contaminants (I) in a stream of effluent water comprises contact with a biomass of microorganisms on a support. The process is carried out in the absence of added oxygen using microorganisms (II) capable of degrading the (I) into CO₂ and other prods. The process comprises (a) continuously passing the effluent stream and a recycle stream downwards through a restricted opening into a sealed vessel, the restricted entrance being filled with a fabric carrying a surface layer of the (II). The vessel is sealed against the entry of air and other sources of O₂.

During the passage of the effluent in intimate contact with the (II) in the restricted part of the entrance, at least part of the (I) is degraded into CO₂ and other materials. The CO₂ rises out of the restricted entrance section to the vessel in counterflow with the incoming effluent stream. The temp. is maintained at 10-60 deg.C to facilitate the biological degradation process at atmospheric pressure; (b) continuously withdrawing CO₂ and other gaseous prods. from a point above the restricted section, at the top of the sealed vessel; (c) continuously withdrawing the effluent liq. from the lower end of the sealed vessel at a point below the restricted section, and at a rate such that the liq. level in the vessel is maintained below the restricted section; and (d) continuously discharging part of the effluent withdrawn and recycling part to the input to the vessel with the incoming effluent, in an amt. so as to maintain the concn. of pollutants having a bactericidal or bacteriostatic action below the concn. at which they inhibit growth of the (II). (41pp)

GEBE- ★ D15 60468 D/34 ★ BE -888-280
Waste water discharge siphon with non-return flow fitting - contg. automatic non-return valve and manual stop valve

GEBERIT AG 24.04.80-CH-003167

Q42 Q66 (31.07.81) E03c E03f F16k

03.04.81 as 888280 (448KB)

A waste water discharge fitting comprises a U-tube siphon trap with automatic non-return valve on the outlet branch. The outlet branch is topped with a casing which communicates with the branch via an annular valve seating.

The valve can be closed in either of two ways, i.e. (1) by back pressure pushing a ball float down on to the seating, and (2) manually, by screwing down stop valve cup over the ball float so that the cup edge seats around the ball float.

Existing siphon traps can be equipped with the new fitting, pref. in plastic. (7pp)

MISRA ★ D15 60552 D/34 ★ DE 3003-090
Two/step alkali pulp waste liquor desilicification - comprises carbon dioxide addn. to ppt. silicic acid and subsequent lime addn.

MISRA DK 29.01.80-DE-003090

F09 (13.08.81) C02f-01/60 D21c-05 D21c-11/04

29.01.80 as 003090 (200BZ)

Alkali waste liquors, e.g. pulp waste liquors, are desilicified in 2 steps. In 1st step, the waste liquor is treated with dil. CO₂ until reaching a pre-determined pH, pref. 9.8-10.2. At least 75% of the silicic acid in waste liquor is pptd. and separated from the waste liquor. In 2nd step, the partly desilicified waste liquor from 1st step is treated with milk of lime so as to achieve the desired degree of desilicification by the pptn. and separation of Ca silicate.

Max. desilicification is achieved with mon. organic and alkali losses. The heating value of the desilicified conc. waste liquor is at least equal to that of untreated waste liquor. The CaO-slurry can be burnt in a rotary furnace or turbulent bed reactor, to reduce the fresh lime requirement by over 96%. The process can be operated continuously and monitored by 1 operator. (22pp)

PAST/ ★ D15 60561 D/84 ★ DE 3003-827
Mechanical waste water impurities removal raking grating - has dirt trap below brush pressed against riddling belt returning after lifting

PASTOORSE 02.02.80-DE-003827

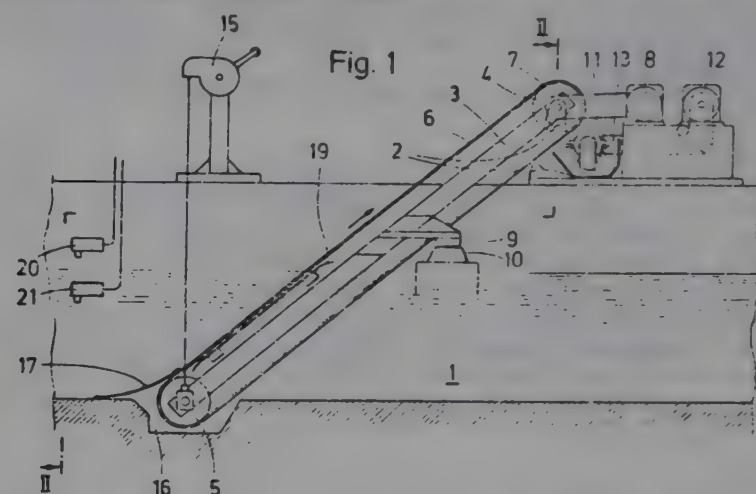
Q42 (13.08.81) E02b-05/08 E03f-05/14

02.02.80 as 003827 (568DH)

A sloping raking grating holds back waste matter, and has provision for removing solids adhering to it. It is in the form of a continuous sieving strip (6), stretched across two rollers (4,5) with lengthways elements held by spaced ones. One roller, at least, is connected to a drive device (8) raising sections of the strip from the water flow.

At the beginning of the return area there is a cleaning brush (11) with powered drive pressing it against the direction of advance, and below this there is a trap (13) for removed impurities.

This is simple and stable, and can reliably remove quite small particles of waste matter. (19pp)



KANY/ ★ D15 60574 D/34 ★ DE 3004-016
Refuse composting toner - with sliding partitions between decks for intermittent descending progress

KANY M 04.02.80-DE-004016

(13.08.81) C05f-09/02

04.02.80 as 004016 (39DJ)

A tower for the conversion of municipal refuse and/or sewage sludge to compost is divided by horizontal partitions into four decks. Each partition consists of two halves with an overlap in the centre which can be moved over each other by rope drives. Three scrapers above each partition have the shape of an inverted U and are also used to introduce compressed air.

The liq. is drained off from each deck as the material descends. The compost produced is extracted at the bottom by a belt conveyor.

This requires little capital investment and maintenance. It produces a homogeneous good-quality compost. (17pp)

NOEL- ★ D15 60596 D/34 ★ DE 3004-226
Mechanical water purification rotary disc filter - has running rollers fixing interval for discs with radial conical protuberances

NOELL GG GMBH 06.02.80-DE-004226

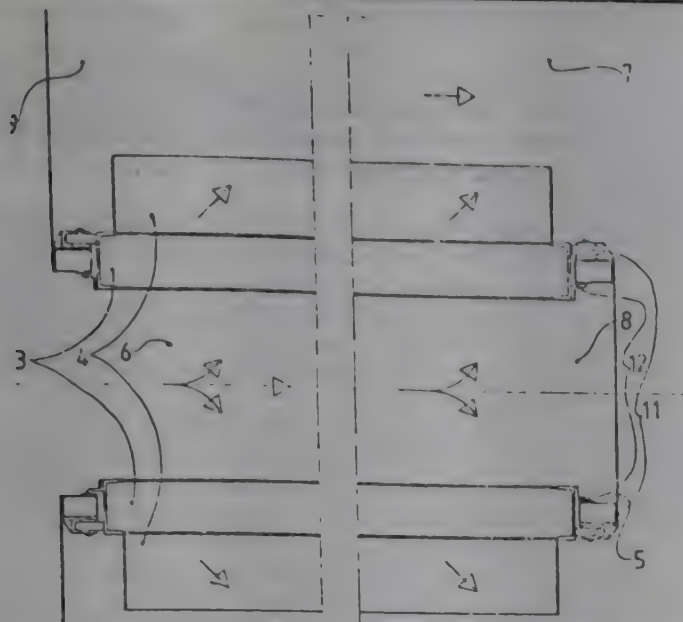
Q42 (13.08.81) E03f-05/14

06.02.80 as 004226 (568DH)

Two or more spindle-mounted circular filter discs, with edges sealed against the housing to provide an annular filter chamber, with intakes offset from outlets, are incorporated in a rotary filter for mechanically purifying water.

The distance between housing (5) and discs (3) is established by running-rollers (11). The discs have a number of protuberances (6) aligned conically in a radial direction. These are pref. triangular in cross section.

There is no need to work on the housing for tolerance in relation to the discs, and a large filter area is provided. (7pp Dwg.No.3)



NOEL- ★ D15 60609 D/34 ★ DE 3004-294
Mechanical water purification grating system - has grating rotating past rigidly mounted grating cleaner

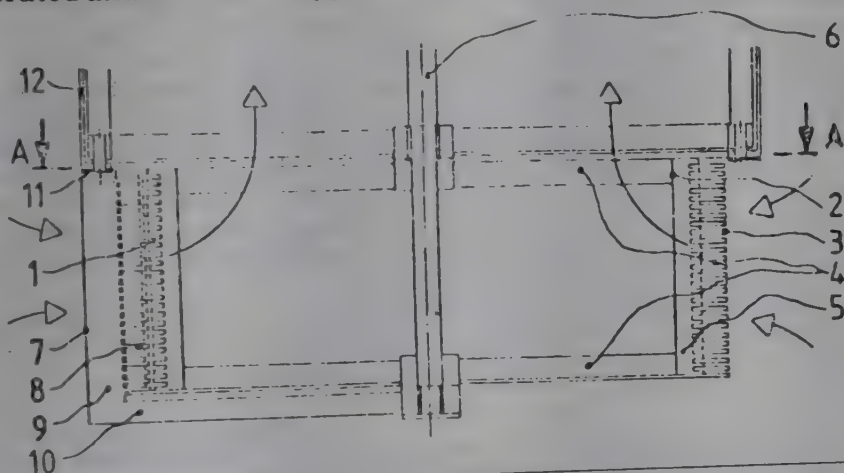
NOELL G GMBH 06.02.80-DE-004294

Q42 (13.08.81) E02b-05/08

06.02.80 as 004294 (568DH)

Use is made of a rigidly mounted grating cleaner (7), while the grating (1) is mounted so as to rotate past the cleaner. The rating can consist of a frame (2) with a series of annular discs (3) in interlocking engagement with the cleaner. The cleaner's run-up side (9) may be aligned at an angle to the grating's direction of rotation, and curved outwards.

This is simple and compact, with few components, and is easily operated and serviced. (6pp Dwg.No.1)



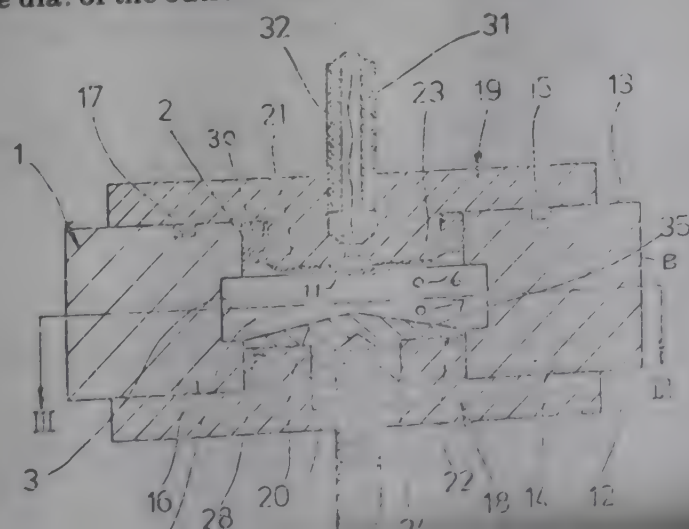
INTE- ★ D15 60626 D/34 ★ DE 3004-494
Cell for measuring oxidant concn. in liquids - esp. chlorine content of water, where cell contains glass beads agitated by water flow and cleaning electrodes in cell

INTEC IND ELECTRONI 07.02.80-DE-004494

E36 J04 S03 (13.08.81) G01n-27/38 G01n-33/18

07.02.80 as 004494 (1144HM)

Cell consists of a housing (1) contg. a cavity (3) through which the liq. to be tested flows from an inlet to an outlet. Cavity (3) contains two measuring electrodes (20, 21), and numerous artificial particles (I) made of an insulating material. Particles (I) are agitated by the flow of liq., and their smallest dimension is larger than the dia. of the outlet holes (11) for the liq.



Particles (I) are pref. glass beads with roughened surfaces used to clean the interior of cavity (3), and esp. the working surfaces of electrodes (20, 21). Electrode (20) pref. has a conical working surface (35), and is made of metal, whereas electrode (21) is pref. a metal foil. Housing (1) and its end walls (18, 19) are pref. made of plexiglass (RTM).

Used e.g. for the determ. of free chlorine left in drinking- bath- or tap-water after C12 or its cpds. have been added to disinfect the water. (16pp Dwg.No.1)

CREA- ★ D15 60676 D/34 ★ DE 3045-850
Sewage sludge composting plant - with mixer for sludge and additives supplied to individual reactor cells and recycled if required

CREATIV-PATENTANST 27.12.79-AT-008141

(13.08.81) C02f-11/02

05.12.80 as 045850 (39KB)

A plant to convert sewage sludge, mixed with additives, to compact, consists of several vertical reactor cells, each with its own discharge mechanism on to a reversible conveyor which can either take the material to a conveyor for the finished compost or to a mixer. The mixer feeds a bucket elevator so that the mixt. can be recycled by a distributor to any of the reactor cells. The mixer can also be charged with the contents of a silo for additives or of a silo for sewage sludge.

This requires only plain reactor cells and can be easily expanded for increased throughput. The charges of the reactor cells can be treated in suited variations of the composting process. (18pp)

RHKA D15 05742 C/04 = DS 2960-322
Sewage sludge mixer and granulator - with hydraulically setting solid using conveyor of differing degree of filling

RHEINISCHE KALKSTEIGMBH 18.07.78-DE-831418

C04 (13.08.81) *EP---7-011 B01j-02/20 C02f-11/14 C05f-07

13.06.79 as 960322 Based on EP G007011 (926WB)

Sewage sludge continuous mixing appts. which uses a hydrotable or hydraulically setting solid material to granulate the sludge, includes sludge and setting solids metres and has a common conveying device. The conveying device operates as a metering device with a full filling degree or a full conveying capacity in the region of the sludge dosage.

Alternatively the device is designed in the gas of the solid material metering located downstream in the direction of movement, in such a way that full filling is not achieved. Pref. a screw conveyor is used, the thread pitch being greater in the zone of the solid material metering onwards. Alternatively using a screw conveyor with a constant pitch, or enlarged section is used in this section.

Optimum, rapid, and continuous mixing is achieved. (6pp)

LINM D15 18363 B/10 = EP G000-861
Purifying organically contaminated waste waters contg. calcium - by introducing carbon dioxide-contg. gas into activated sludge-contg. liq. to ppte. calcium carbonate

LINDE AG 25.08.77-DE-738309

(D17) (12.08.81) *EP---861 + C02f-01/52 C02f-03/12

01.06.78 as 100051 (922HM) (F) FR2294986 NL-148112 US3356609

US3546111 1.Jnl.Ref E(BE FR GB NL)

Calcium-contg. waste water, esp. in the sugar industry, is purified more efficiently by introducing (an) oxygen (-containing gas) and a carbon dioxide-contg. gas to convert calcium hydroxide to the carbonate with the amount of CO₂ added being such that the pH in the activation system is adjusted to 6-8 (6.5-7.5), the solid matter concentration of the activated sludge maintained at above 8 Kg per m power 3 and its organic content (determined by loss on ignition) at 30-70% (40-60%). (4pp)

FARB D15 47346 B/26 = EP G002-475
Water-soluble amido-poly:amine cpds. for use in paper mfr. - are prepd. from amide-poly:amine and opt. polyfunctional cpd.

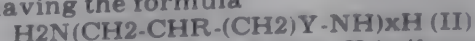
BAYER AG 17.12.77-DE-756469

A97 F09 (A26) (12.08.81) *DE2756-469 C08g-69/48 D21h-03/58

04.12.78 as 101532 (481DJ) (G) DE1906561 FR1510556 FR2013071

FR2249104 1.Jnl.Ref E(BE CH DE FR GB IT NL SE)

Water-soluble, non-selfcrosslinking polyamines (I) are obtd. by reacting (A) one or more polybasic amines contg. amide gps. produced by condensing (a) 1 mol. decarboxylic acids or their functional derivs., (b) 0-30 mols. of aminocarboxylic acids contg. at least 3C or their lactams and (c) polyalkylenepolyamines having the formula



in which R is H or CH₃, Y is the same or different and is 0 or 1 and x is 4-15, or mixts. of these polyalkylenepolyamines (II) with amines of the same formula but in which x is 1-3, whereby opt. part of (II) used is replaced by other types of di-, tri-, tetra-, penta- or hexamine; and (B) 0.1-0.5, pref. 0.15-0.3 mol. (per mol. of

polyfunctional relative to amino gps.

In the absence of (b), 1.4-3.0 mol. of (c) are used; and if (b) is present, 3-30 mol. of (c) are used.

(I) are used as auxiliaries for increasing the retention of fillers, fibres and pigments and as drainage accelerators in paper prodn. and for processing paper machine waste waters by filtration, sedimentation and flotation. (17pp)

DELA/ D15 79472 B/44 = EP G005-113
Deodorising treatment for pig excrement - by adding lime, settling, then sepg. liq. and solid fractions, both useful as fertilizer

DELAUNAY J P 17.04.78-FR-011170
C04 (12.08.81) *EP--5-113 C05f-03
13.04.79 as 400246 (448AT) (F) FR2020516 FR2371399 NL6902007 E(BE DE GB NL)

A process and an installation for deodorising pigs' liq. manure where it is converted for use as agricultural fertiliser. A calcareous agent is added to the manure, the mixt. is decanted and the liq. fraction oxygenated with an air blower.

The agent, pref. calcium carbonate, is added at a rate of 100 kg. per 12 cubic m of manure. After decanting the mixt. for 3 to 5 days, the liq. fraction is oxygenated to evaporate 40 per cent of its initial vol. Meanwhile, the solid fraction is left to stand on a storage area. Both fractions can then be used as fertiliser. (7pp)

ATAR- D15 12736 C/07 #EP --33-407
Liq. circulation device submerged in liq. - includes large bubble generator feeding open/ended vertical stack pipe

ATARA CORP (AERO) 15.01.79-US-003707 (04.02.80-EP-300320)

+ Q56 (12.08.81) *US4187-263 + C02f-03/22 F04f-10
04.02.80 as 300320 (295DH) (E) GB1400723 US3148509 US4169873 E(CH DE FR GB IT)

Circulation is produced within a body of liq. using a device which includes a vertical stack pipe wholly submerged in the liq., a large bubble generator, and a vertical stand pipe. The bubble generator includes a gas accumulator chamber whose upper portion is connected by an inverted siphon to the stand pipe.

A transverse gas flow conduit connects the upper end of the stand pipe and the stack pipe. This is connected through the peripheral wall of the stack pipe. There is a sec. liq. inlet into this transverse conduit.

The device is used for the agitation of large standing bodies of liq., e.g. in anaerobic sewage systems. (21pp)

PASE ★ D15 60710 D/34 ★EP --33-482
Sepn. of solid impurities from liq. - in sealed container using rotary sieve from which solids are scraped into collection drum

PASSAVANT-WERKE AG 23.01.80-DE-U01666
J01 (12.08.81) B01d-33/10
22.01.81 as 100447 (1144HM) (G) US3722684 DS-375305 DS-498590 US1368618 DS-252498 DE2743556 E(AT BE CH DE FR GB IT LI NL)

Plant consists of a transportable container which is gas- and odour- tight. Inside the container is an inlet tank for the liq. to be purified; a sieve drum rotating on a horizontal axis; and an exit tank collecting the liq. flowing through the sieve. The solid impurities are scraped off the periphery of the sieve into a collection drum.

The container pref. has the external dimensions and crane lifting hooks of a standard large container for garbage, with a sealable door. The plant has universal use for sepg. odorous, toxic, and/or explosive materials, one example being the pre-cleaning of odorous drain water prior to further purificn. (9pp)

ESMI- ★ D15 60744 D/34 ★EP --33-575
Controlling liq. level in evaporation compartments - of multistage expansion evaporator using circulation conduit between discharge chamber and evaporation compartment

ESMIL BV 05.02.80-NL-000704
J01 (12.08.81) B01d-01/26 B01d-03/06 C02f-01/06
29.01.81 as 200121 (1044BZ) (E) E(DE FR GB IT)

A multistage expansion evaporator has a series of stages each comprising an evaporation chamber and a heat exchanger chamber in open communication with each other. A heat exchanger conduit extends through the heat exchanger chambers. A circulation conduit connects a discharge chamber to one of the evaporation compartments in the second half of the evaporator and has a control valve to permit control of the liq. level in the evaporation compartment.

Excessive levels in certain evaporation compartments can be avoided by conveying part of the water through the circulation conduit so that the remaining quantity of feed water still flowing through the compartments does not produce an excessive level in them. Adjustable throttle openings in the partition walls are no

evaporation compartments. (17pp)

BRUC/ ★ D15 60788 D/34 ★EP --33-681
Liq. aeration pump set for waste water purificn. - has pump submerged near tank base with riser to surface spray nozzle
BRUCKER C 01.02.80-FR-002224
(12.08.81) C02f-03/14

23.01.81 as 400092 (448HM) (F) FR2195476 FR2023739 FR2022818 FR2187400 US3653641 E(AT BE CH DE GB IT LI NL SE)

Aerator for liqs. has a pump at least partly immersed below the surface of liq. in a tank etc. The pump is located between an upwardly convergent suction bell, below the pump, and an upwardly divergent spray discharge nozzle above it, close to the surface.

The installation now comprises a suction bell close to the bottom of the tank. The suction bell is connected to the discharge nozzle by a riser pipe of which the length is adapted to suit the depth of liq. in the tank. The pump is fully immersed inside or in the vicinity of the junction bell.

Pref. the pump is housed in a secondary suction bell installed coaxially within the first. Liq. flowing up through the pump and secondary suction bell entrains an upflow of liq. via. the annular passage between the two suction bells.

The installation can be fitted to a float chamber to rise and fall with the surface level of liq. in the tanks.

Used in aeration of liq. partic. for the purificn. of waste water. Liq. is sprayed up from a much greater depth than is common with previous, surface aerator. Pump efficiency is raised by providing by providing an adequate back pressure at the pump outlet, which is now well below the surface of liq. (14pp)

RIBA/ ★ D15 60826 D/34 ★FR 2472-540
Anaerobic biological system for purificn. of effluent - using specified mixed culture which is fed continuously

RIBAUD M 28.12.79-FR-032159
(03.07.81) C02f-03/28

28.12.79 as 032159 (597AM)
Biological system for the purifn. of effluent contg. organic material principally anaerobically is characterised by continuous seeding of all or part of the effluent by a mixed population of fungi and bacteria enabling biological catalysis of anaerobic degradation reaction. The population contains *Trichoderma reesei*, *Mucor rouxii*, *Sporotrichum pulverulentum*, *Zooflea ramigera*; *Bacillus substis*, *lichenformis*, and *psychrosacharolyticus*; *Pseudomonas fluorescens*, *Enterobacter cloacae*, *Streptococcus faecalis*; *Cellulomonas cellasea* and *flarigena*; and *Hescherichia coli* ML30.

The system may be applied to urban and industrial effluent. IT is cheaper than aerobic installations and gives a higher yield on a given time which enables small installations. (16pp)

SAUN/ ★ D15 60846 D/34 ★FR 2472-751
Analysing separately for oxidants in soln. - comprising running analysis in parallel on untreated and treated samples

SAUNIER B 13.11.79-FR-027879
E36 J04 S03 (03.07.81) G01n-27/46

13.11.79 as 027879 (396DJ)
Method of analysing separately the amounts of oxidant of a soln. which contains free chlorine, ozone, chlorine dioxide and one or more other residual oxidants, comprises two or more analyses selected from (a) analysis of an untreated sample, (b) analysis of a sample after injection with nitrite; (c) analysis after injection with glycine; (d) analysis after injection with excess ammonium ions and a buffer bringing the pH to 7; (e) analysis after injection with an iodide and an acid lowering the pH to 1; and (f) analysis of a sample treated with ammonia and glycine and a buffer to bring it to pH 7; and determining the differences between the analyses.

Method is for use esp. in the treatment of drinking water. Improved sterilisation of water can be effected using the results of these analyses. (8pp)

SODA- D15 84161 A/47 = GB 1595-911
Portable water carbonator for sparkling drinks - has simplified and more efficient inlet and outlet valves coupled by rigid connecting rod

SODASTREAM LTD 02.02.78-GB-004328 (29.07.77-GB-032041)
(19.08.81) *BE-869-095 B01f-03/04
31.05.78 as ----- (006KB)

Portable appts. for carbonating water comprises a header tank connected to the bottom inlet of a press. vessel with a top outlet and a CO2 injector nozzle, both inlet and outlet having respective valves in the form of pistons opened together.

The latter are rigidly connected to form a unit, the pistons having equal areas exposed to the vessel interior so that the unit is balanced and pref. operable by an axial extension coupled to an operating lever. (8pp)

MATU D15 00814 B/01 = GB 1595-982
Reverse-permeable membrane prodn. - by placing together film material and cloth impregnated with membrane-forming material, and passing through a narrow gap
MATSUSHITA ELEC IND KK 25.04.77-JP-048179 (20.12.76-JP-153834)

A88 J01 (19.08.81) *J53132-480 B01d-13
20.12.77 as 052977 (+10.3.77; 4.4.77(2); 5.4.77-US-026823; 038811,2; 039256) (964HM)

Semipermeable membrane comprises (a) gel layer, (b) active layer which is thinner than the gel layer and disposed on the gel layer; and (c) porous sheets buried in the gel layer and permitting passage of solvent which has passed through the active layer. The active layer permits passage of solvent of a soln. to which the active layer is exposed, and impedes the passage of solute. The gel layer permits the passage of solvent which has passed through the active layer.

The membrane is used in ultra-filtration and reverse osmosis. High solvent throughput is provided. The membrane is mfd. by process involving impregnating porous sheet with polymer soln. (18pp)

SALA- D15 76319 A/43 = GB 1596-073
Non-scaling and descaling water prodn. in a treatment chamber - by synergistic combination of vibration and alternating pulsed electric field

SALANON SA 25.04.77-FR-012448

+ P43 Q78 (19.08.81) *BE-866-231 C02b-05 + B08b-07/02 C23f-13

21.04.78 as 015782 (006HM)

Appts. for descaling pipes or preventing scaling by flowing liq., comprises a housing which is coupled into the pipe via an inlet and an outlet, and which encloses a vibratable diaphragm and an electrode grid to which alternating electrical pulses are applied as the diaphragm is vibrated.

Specifically the grid extends either across or along the liq. flow, esp. water. (6pp)

ENVI D15 79183 Y/44 = GB 1596-122
Separating solids from liquids - in settling tank with central flocculant mixing column, e.g. for ore separation or coal refuse treatment

ENVIROTECH CORP 14.02.77-US-768315

J01 (19.08.81) *US4055-494 B01d-21/06 + C02f-01/52

13.01.78 as 001419 (006HM)

Gravational sepn appts for solids suspended in liqs, comprises a tank with an upright central tubular top-fed column, below the inlet section of which is a second section in which the ingoing material is diluted with recycled clarified liq extracted by top overflow.

Below the second section is a section in which chemical flocculating reagent is mechanically mixed-in, by stages, in several superposed compartments each with a mixer. The bottom compartment discharges into a sludge blanket on the tank base, for rake-off. (7pp)

CLEV- D15 47376 B/26 #GB 1596-190
Sewage aeration device - with submerged distributor and radial pipes for air fluid mixing chambers

CLEVEPAK CORP 20.12.77-DE-756893 (13.12.77-GB-051847)

(19.08.81) *DE2756-893 + B01f-03/04 B01f-05/04

13.12.77 as 051847 (006HM)

Mass of waste water is aerated by jetting waste water along an elongated chamber while surrounded by an annular co-extensive jet of gas, e.g. air or O₂. The water and gas jets strike the chamber wall, pref in a tapering section, to form vortices which promote intimate mixing.

Pref a waste water jet nozzle is encircled by a ring of air flow passages which generate the annular air jet. (10pp)

FILT D15 36436 A/20 #GB 1596-203
Water purificn., esp. of sewage - uses only two basic tanks and is used by small family units

FILTERS INT INC 02.01.74-US-429488 (14.02.78-GB-005863)

A91 (19.08.81) *US4081-365 C02f-03/02 + C02f-01/28 C02f-09

14.02.78 as 005863 (006HM)

Sewage treatment system comprises a receiving and aeration tank, in which settling may also be effected. Effluent from the tank is up-flowed through a container holding a filter bed which ranges from coarse to fine particles in the flow direction, and above which is an absorption bed of activated carbon.

Pressure oxidising gas is fed to the container bottom, and treated water from the top is fed to a storage tank. Excess treated water is drawn off, and from the storage tank recycle occurs to the receiving tank. Small domestic system. (34pp)

FILT D15 36436 A/20 #GB 1596-204
Water purificn., esp. of sewage - uses only two basic tanks and is used by small family units

FILTERS INT INC 02.01.74-US-429488 (14.02.78-GB-005863)

A91 (19.08.81) *US4081-365 C02f-01/52

14.02.78 as 013515 Div ex1596203 (006HM)

Water purificn material for sewage etc contg phosphates, suspended solids and colloidal matter, comprises a mixt of water and coagulant, and a reaction agent which produces with the coagulant a prereacted floc for removing the solids and colloidal matter. Excess coagulant is present, as also is agglomeration-promoting material for the pre-reacted floc.

Pref the purifn material is dried into powder form, for mixing with water at the time of use, esp in small domestic systems (29pp)

FILT D15 36436 A/20 #GB 1596-205
Water purificn., esp. of sewage - uses only two basic tanks and is used by small family units

FILTERS INT INC 02.01.74-US-429488 (14.02.78-GB-005863)

A91 (19.08.81) *US4081-365 C02f-01/28 C02f-03/02 C02f-09

14.02.78 as 013516 Div ex1596203 (006HM)

Sewage treatment process, comprises an automatic cycle based on periods of max and min input periods in repeating sequence, e.g. day and night. At max periods the sewage is derated, and towards the end of a max peiod pre-reacted floc is introduced for the aeration to effect rapid floc-agglomeration.

During min periods effluent is drawn off and filtered periodically, and more pre-reacted floc is added to the filtrate. Adsorption removes dissolved organic solids from the filtrate. Cleaning-out is infrequent in small domestic systems. (32pp)

BRTO ★ D15 60876 D/34 ★ GB 1596-246
Treating sewage flowing through gravity sewer - by removing some sewage, oxygenating it and returning it to prevent septic conditions during hot weather

BOCLTD 06.02.78-GB-004594 (08.01.73-GB-001028)

(19.08.81) C02f-03/02

31.05.78 as ----- (525DJ)

A proportion of sewage flowing through a gravity sewer is removed, oxygenated and returned to the sewer in order to maintain oxygen levels such that during dry spells anaerobic conditions are avoided. The oxygenating appts. may be such as to introduce oxygenated sewage at regular intervals.

The avoidance of anaerobic conditions prevents corrosion of the sewer pipe by hydrogen sulphide produced under the avoided anaerobic conditions. (6pp)

SMHL ★ D15 60887 D/34 ★ GB 2068-760
sludge thickening appts. - having foraminous belt onto which spaced sludge strips are deposited

SIMON HARTLEY LTD 23.01.80-GB-002271

J01 (19.08.81) B01d-33/04

23.01.80 as 002271 (525HM)

Appts. for thickening sludge which may be activated, comprises a foraminous belt onto the upper run of which spaced strips of sludge are deposited from a chute. The spaced strips are formed by fingers which project from the feed end of the chute.

The spacing between the sludge strips facilitates liq. drainage through the belt and gives a thickened sludge having up to 50% by wt. solids in a cheap and easy to operate fashion. (5pp)

SMHL ★ D15 60888 D/34 ★ GB 2068-761
Sludge dewatering appts. having foraminous belt - in which local build up of sludge on the belt is effected to improve dewatering

SIMON HARTLEY LTD 01.02.80-GB-003495

J01 (19.08.81) B01d-33/04

01.02.80 as 003495 (525HM)

Sludge dewatering appts. comprises a foraminous belt into which the sludge is fed and through which the water drains. Means are provided to locally restrict the movement of the sludge along the belt to cause a local build-up of sludge.

Local build-up causes compaction of the sludge in that region and thus increases water drainage. The build-up may be associated with a backward rolling action of the sludge which further increases water loss. Solids contents of 5% or more can be achieved. (5pp)

TIBI ★ D15 60889 D/34 ★ GB 2068-762
Separating components of non-newtonian fluid - using shear stress to shear rate non-linearity of components during movement

TIBILY CORP NV 01.02.80-GB-003552

F09 H03 J01 (19.08.81) B01d-43

01.02.80 as 003552 (006JS)

Movement to utilise the non-linearity of one component of the fluid, as regards its shear-stress to shear rate property, to separate it from another component of the fluid. One component

is drawn off via an invariable-size passage.

Process is used for sepn. of oil slicks from the sea. (17pp)

TOKU ★ D15 61011 D/34 ★ J5 6081-109
Electrodialysis appts. e.g. for water desalination - having alternate anion and cation exchange membrane forming diluting and concentrating chambers between electrode chambers

TOKUYAMA SODA KK 07.12.79-JP-157995

J01 (02.07.81) B01d-13/02

07.12.79 as 157995 (AS)

A device is claimed for electro-dialysing a liq. such as sea water to be desalted or concentrated, and an anion exchange membrane is claimed. The anion and cation exchange membranes are alternately arranged with gaskets and spacers to form diluting and concentrating chambers between a cathode and anode chambers. The anion exchange membrane has grooves for feeding and draining a concentrated liquid in the exchange chamber and has a central area for electrodialysis.

If the conventional membrane, a part of it was broken because of leak current flowing between the grooves and this part. The object is to avoid breaking of the membrane. An insulating film is laid on the area between the marginal part of the central area and grooves. (5pp)

OKAN/ ★ D15 61012 D/34 ★ J5 6081-110
Segg. oil from waste water - using a fluorinated solvent, to recover the oil for reuse

OKANOUE I 04.12.79-JP-157149

A97 E16 J01 (02.07.81) B01d-17/04 B01d-21/*

04.12.79 as 157149 (55NS)

Separation of oil from a waste water contg. oil, uses a fluoro type solvent (I). Pref. a fluoro resin is added to the waste water and the mixt. is stirred. Upon standing, three layers (water/solvent/mixt. of solvent and oil) are formed.

Although (I) and oils are not miscible along when water is present, the solvent and oil are mixed in one phase and can be sepd. from water. Waste water contg. oil, e.g. an emulsion etc. can be treated and the oil recovered and reused. Environmental pollution is prevented. (3pp)

KURK ★ D15 61015 D/34 ★ J5 6081-114
Sludge dewatering appts. - includes pair of belts between which the sludge is passed under high pressure

KURITA WATER IND KK 04.12.79-JP-156344

J01 (02.07.81) B01d-33/04

04.12.79 as 156344 (26PW)

A device is claimed for dewatering sludge between a pair of endless dewatering belts passing over driving, guide and press rollers. The object is to apply a high pressure to the sludge between the dewatering belts, without increasing the tension of belts.

A high pressure roll having a larger dia. than the other rolls is half wound with the belts and small press rollers are located at the outer surface of an auxiliary endless belt laid at the outer side of the pair of endless dewatering belts to support them around the high pressure roll. Each dewatering belt may be made of filter cloth. (4pp)

AGEN ★ D15 61036 D/34 ★ J5 6081-176
Treatment of refuse contg. paper - by adding water and koji contg. amylase, protease and lipase, and lactic acid bacteria and subjecting to six-part process

AGENCY OF IND SCI TECH 07.12.79-JP-158139

P43 (D16) (02.07.81) B09b-03 C02f-03/28

07.12.79 as 158139 (34DJ)

Paper-contg. refuse is subjected to a treatment by (1) adding H₂O, koji contg. acidic amylase, protease and lipase, and lactic acid bacteria-contg. materials, (2) followed by stirring under anaerobic state at 30-60 deg.C for 1-10 days to convert by hydrolysis the starch contained to lactic acid; (3) sending the slurry thus treated to a solid-liq. separator in which the slurry is sepd. into a lactic acid fermentation liquor and a solid residue; (4) sepgg. the fermentation liquor by centrifugation into a clarified liquor and fine particles-containing matters which is reused as the lactic acid bacteria-containing matters; (5) sending the clarified liquor to an adsorbing tower packed with weakly basic anion exchange resin, in which lactic acid is adsorbed on the resin and a mother liquor is discharged; (6) sending the residue to a cellulose-decomposing vessel in which the residue is mixed with H₂O and cellulose-contg. koji and stirred at 30-60 deg.C for 0.5-2 days, followed by sepgg. into a cellulose hydrolysed liquor and a residue; and (7) admitting the cellulose hydrolyzed liquor and the mother liquor to an anaerobic digesting vessel, followed by treating at 20-60 deg.C for 2-10 days to generate a CH₄ gas having

KAWI ★ D15 61087 D/34 ★ J5 6081-180
Steel material-colour checking waste liquor treatment - by adding soln. of a metal salt capable of forming sediments to remove red colouring matter, oil etc.

KAWASAKI STEEL KK 04.12.79-JP-157094

M14 (02.07.81) C02f-01/52

04.12.79 as 157094 (34AT)

Steel material-colour checking waste liquor which detects cracks formed on the surface of the steel material is treated by adding a soln. of a metal salt capable of forming sediments at a pH value of the effluent regulations e.g. Fe³⁺ etc. followed by adjusting its pH to about 7 with NaOH to remove by coprecipitation red colouring matter, COD components and oil components, and treating the filtrate with activated charcoal to remove by adsorption the remaining small amt. of colouring matter etc.

The colouring matter, COD components and oil components are simultaneously removed almost completely and the treated effluent is outflowed without causing any environmental contamination. (4pp)

MITU ★ D15 61048 D/34 ★ J5 6081-315
Mfg. water-soluble polymer beads for waste-water treatment - by polymerising methacrylamide quat. ammonium monomer opt. mixed with vinyl monomer using azo salt as a catalyst

MITSUBISHI CHEM IND KK 07.12.79-JP-158848

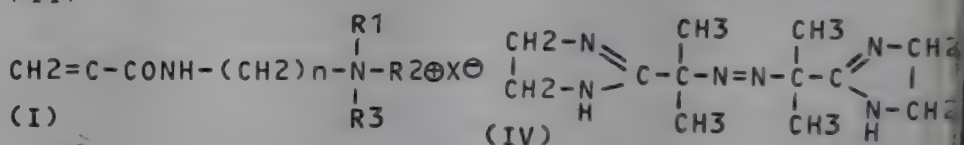
A14 (A97) (03.07.81) C08f-04/04 C08f-20/60

07.12.79 as 158848 (83WB)

Method comprises dispersing 20 to 90 wt.% aq. soln. of monomer of formula (I), or a mixt. of (I) with other water-soluble vinyl monomer (I'), in organic liquid (II) in the presence of oil-soluble polymer (III) as protective colloid, and polymerising (I) using a water-soluble salt of azo cpd. of formula (IV) as free-radical catalyst.

R₁ is H, C₁ to C₈ alkyl, C₁ to C₄ hydroxyalkyl or benzyl; R₂ and R₃ are C₁ to C₄ alkyl; n=2,3 or 4; X is anion. Pref. (I') is, e.g., acrylamide, beta-methacryloyloxyethyl trimethylammonium chloride, etc. (II) is, e.g., C₆ to C₁₀ hydrocarbons, halogenated aromatic hydrocarbons, etc. (III) is, e.g., cellulose propionate, butyrate, -acetate butyrate, ethylcellulose, etc.

Product is used as a coagulant in waste water treatment. The method prevents agglomeration of polymer and gives polymer in the form of easily handled beads of particle size of 0.1 to 1mm. (6pp)



DOJI- ★ D15 61099 D/34 ★ J5 6081-447
Determin. of water hardness by ion exchange resin - by monitoring the swelling and contraction of the resin according to dissolved ion species and concn.

DOJIN KAGAKU KENKYU 07.12.79-JP-159472

A91 (03.07.81) G01n-33/18

07.12.79 as 159472 (50BZ)

A method for determining hardness of water comprises an ion exchange resin, formed by imparting ion-exchange group (e.g. sulphonic acid group) to high polymer matrix with controlled crosslinking degree (e.g. styrene-divinylbenzene copolymer); the resin exhibits different degree of swelling according to the kind of adsorbed ion as the measure of water hardness. An appts. for determining water hardness comprises using the swelling and contracting phenomenon shown by the resin as the measure of water hardness.

The ion-exchange resin contracts when sample water passes contains alkaline earth metal ion and swells when sample water contains hydrogen ion or alkali metal ion, and the change in the volume of the resin between them is visibly large. Also the response speed of the volume change is large.

The method and the apparatus are very useful for monitoring the life of ion-exchange activity of the apparatus for softening hard water. (3pp)

NIPA ★ D15 61257 D/34 ★ J5 6082-31
Treating aq. cationic paint waste water - by mixing with coagulant, clay, auxiliary alkaline coagulant and burning out by adding a fuel etc.

NIPPON PAINT KK 10.12.79-JP-160641

Q73 (06.07.81) C02f-01/52 F23g-07/04

10.12.79 as 160641 (117RH)

Aq. cationic paint waste water contg. 5-20 wt. solids is treated by mixing with 0.4-1.6 wt.% (based on solid content) of a coagulant, e.g. Al sulphate, Al polychloride, etc., and 0.2-1.0 wt.% (based on solid content) of an auxiliary alkaline coagulant, e.g. NaOH, etc., and burning out by adding a fuel etc.

quick lime, caustic soda, lime stone, etc., in an amt. sufficient to make the pH of the mixt. 8.0-11.0, and then the obt'd. mixt. in a slurry is burned out by the addn. of a fuel, e.g., heavy oil, kerosine, waste oil, etc.

Method cures the cleaning maintenance of slurry storage tank and the transportation of the slurry of cation paint waste water easier because no settlement of solids occurs in the tank and also no blocking occurs during the transportation through pipe, etc. In addition, the slurry can be easily mixed with the other waste water, and also can be easily burned out or disposed of at dumping site as required. (3pp)

HITA ★ D15 61483 D/34 ★ J5 6084-320
Desorption of uranium from adsorbent - by contacting with phosphoric acid soln., esp. for recovering uranium from sea-water

HITACHI KK 14.12.79-JP-161504
E31 J01 M25 (09.07.81) B01d-15 B01j-20/34 C01g-43 C22b-60/02
14.12.79 as 161504 (42RP)

Uranium (I) adsorbed by an adsorbent (II) is desorbed by contact of (II) with phosphoric acid (III) soln. (II) adsorbing (I) should be contacted with (III)-soln. of 0.01-5 ml/l conc. at room temp. -50 deg. C.

The method relates to desorption of (I) from (II), which adsorbs (I) from sea water. (I) in sea water has been collected most effectively with use of such (II) as hydrous Ti oxide or Ti-Fe adsorbent. For desorption of (I) from (II), (II) is contacted with carbonate or acid soln. However, when (II) is contacted with carbonate, Ca carbonate, formed by the reaction between the carbonate and Ca adsorbed in (II) from sea water, deposits on the surface of (II), lowering the adsorption activity of (II). Acid dissolves (II) and damages the adsorption activity of (II). The present method desorbs (I) effectively without causing the above mentioned problems. (2pp)

SHIG/ ★ D15 61571 D/34 ★ J8 1031-146
Treating waste water contg. flour - by fermenting portion in vat where lactic acid is neutralised with calcium salt, feeding to liq. cyclone, etc. (J5 18.3.77)

SHIGEHIO M 12.09.75-JP-111542
(20.07.81) A231-01/19 C02f-01 C07c-59/08
12.09.75 as 111542 (83AS)

Method comprises (a) fermenting part of the flour-contg. waste water (II) in a vat (I) where lactic acid formed is neutralised with Ca salt; (b) feeding the water to a liq. cyclone (III); (c) returning a part of upper stream to (I) and re-using the rest for dough washing; (c) combining the rest of (II) with lower stream of (III) and feeding the mixt. to a second fermenting vat.

Process further comprises (d) feeding the water to continuous liquefier to liquefy starch by self-fermentation; (e) neutralising the soln. with Ca salt and concentrating the soln. in evaporator (f); recovering soluble protein from the soln. by liq. cyclone (IV) and settling tank (g); feeding upper stream of (IV) to third fermenting vat; (h); neutralising the soln.; and (i) recovering Ca lactate in an evaporator. (J52035447) (3pp)

FUJI ★ D15 61572 D/34 ★ J8 1031-155
Microbial treatment of waste water - by packing basket with stoppered tubes and rotating in bath (J5 21.11.77)

FUJISAWA PHARM KK 18.05.76-JP-057143
(20.07.81) C02f-03/08
18.05.76 as 057143 (83AS)

Method comprises packing a basket with tubes stoppered at one end, and rotating the basket in treating bath with less than half the basket volume immersed in the waste water. The tubular packing material effectively fixes microbes on its surface, providing efficient water/microbe contact. (J52139268) (4pp)

TAKU- ★ D15 61573 D/34 ★ J8 1031-159
Waste water treatment - using activated sludge, settling and digesting tanks, and fermenting vat contg. methane-consuming bacteria (J4 10.9.74)

TAKUMA KK 12.01.73-JP-006820
(20.07.81) C02f-03/28 C02f-11/04
12.01.73 as 006820 (83)

Method comprises treating waste water contg. N,P, etc. in a settling tank, activated sludge tank and setting tank. The sludge is then moved into digesting tank where organic substances are decomposed to CH₄ by methane bacteria at 30 to 50 deg.C. Water is moved from the settling tank and CH₄ from the digesting tank into fermenting vat where methane consuming bacterial (Methylobacter, methylococcus, etc.) propagates using P, N, etc. as nourishment. Gaseous prods from the digesting tank are heated by gas separator and solid bacteria body is sepd. in settling tank. (J49095463) (3pp)

ANVR D15 23460 V/18 = J8 1032-00
Removing emulsified oil from water - using fluidised oleophilic resin and by mechanical disaggregation

AGENCE NAT VALOR SA 30.06.72-FR-023768
J01 (24.07.81) *FR2190-741 + B01d-17/02
23.06.73 as 072381 (RH)

Process uses a granular or powdery oleophilic resin obt'd. by fixing organic ions to an ion exchange resin, and comprises injecting the contaminated water to the base of an oleophilic resin column at a flow rate sufficient to fluidise the resin bed, mechanically disintegrating, at the top of the column, aggregates of resin bound coalesced hydrocarb which have a critical size and density loss than water which determines their rate of agent in the column for disintegration, after decanting at the top of the column, with drawing the mechanically liberated hydrocarbons, while the grains of freed resin redescend for recycle, and withdrawing the treated water at a zone intermediate the upper part of the fluidised bed and the disintegrating zone. (J49051766) (3pp)

UNTC D15 40254 V/22 = J8 1032-004
Inserts for pipe channels in sedimentation tanks - assembled from slotted elements and ribs produced as plastic extrusions

ECODYNE CORP 17.11.72-US-307319
(24.07.81) *DE2355-183 B01d-21/02
08.10.73 as 113171 (AT)

Insert for sedimentation or clarification tanks used for liq./solid separation comprises several parallel pipes or pipe shaped channels assembled from elements with pitched slots and suitably dimensioned ribs from opposite elements fitting into these slots. The elements are suitably aligned parallel to each other with corresponding slots, and 3 or more ribs are accepted and held in the slots of an element. Elements are pref. formed by plastic extrusion.

Device is pref. used for water treatment, and used the min. number of differently draped parts, and max. number of identical parts. (J49135270) (7pp)

TOYJ D15 46695 W/28 = J8 1032-038
Waste water clarification - using clay treated with mineral acid and opt add of flocculant

TOYO SODA MFG KK 31.03.73-JP-036234
J01 (24.07.81) *J49123-188 + C02f-01/52
31.03.73 as 036234 (AS)

Clay treated with a mineral acid is used as a coagulant for clarification of a suspension. Opt., a water-sol. org. high-mol.wt. flocculant is also added.

In an example, 100g. kaolin was mixed with 44 ml. 98% H₂O₄ and 40 ml. water was slowly added under agitation. The resulting paste-like prod't. was aged, dried, and ground to obtain 180 g. powdered coagulant. Then 0.06g. of the coagulant was added to waste water having turbidity 378.5 and after agitating for 5 mins. the waste water was settled. The waste water became clear after 5 hrs., compared to 288.6 for turbidity of waste water treated without the coagulant. (J49123188) (9pp)

OHIR/ ★ D15 61610 D/34 ★ J8 1032-040
Waste water treatment - involves passing water through activated sludge carrying non-absorbing solid medium in pressurised sealed tank (J4 2.4.73)

OHIRA T 11.08.71-JP-061266
(24.07.81) C02f-03/06
11.08.71 as 061266 (83DH)

Method comprises passing waste water through activated sludge-carrying, non-absorptive packing material (I) packed in a sealed tank pressurised with O₂. (I) is e.g. plastic chips, sand, etc. (J48025372) (3pp)

NITT D15 85626 Y/48 = J8 1032-250
Waste water treatment for liquids discharged from ammoxidation - by heating to convert cyanides to nontoxic cpds., neutralising with ammonia and recovery of ammonium sulphate

NITTO CHEM IND KK 15.04.76-JP-041819
E16 (27.07.81) *J52125-499 C01c-01/24 + C02f-09 C07c-121/32
15.04.76 as 041819 (43RH)

Waste water contg. ammonium sulphate, organic substances and cyanides being discharged from ammoxidation process is treated by heating at over 120 deg.C to convert cyanides to non-toxic cpds. and to change organic substances into cpds. of higher b.pt., allowing the organic cpds. to deposit in a solid form by maintaining the waste water at an ammonium sulphate concn. above 20 wt.%, at less than 45 deg.C and pH of 2-4 sepg. out solid for removal, and neutralising with ammonia to crystallise out ammonium sulphate by evapn. to concn.

Heating is effected in a press. vessel at 120-300 deg.C, thereby converting organic substances to tack-free solids by adjusting pH and temp.

The process provides economical treatment of waste water discharged from ammonoxidation process, e.g. for propylene and butylene, and recovers non-toxic ammonium sulphate smoothly. (J52125499) (4pp)

SUMO D15 00028 X/06 = J8 1032-255
Treating hexavalent chromium-contg waste waters - by chromatography through high mol wt cpds having a pyridine moiety with a cross-linked structure

SUMITOMO CHEMICAL KK 31.10.73-JP-123124

A91 J01 (27.07.81) *J50073-898 + C01g-37 C02f-01/42

31.10.73 as 123124 (DJ)

The adsorbed Cr can be recovered from the column by treatment with acidic (pH less than 2) or alk (pH greater than 7) solns.

In an example, 4-vinylpyridine 88.5, divinyl benzene 11.5, Bz2O2 1, and PVA 2 pts. were suspended in water and heated to obtain a cross-linked polymer of 4-vinylpyridine. The resin 10 g and 30% H2SO4 200 ml were mixed and allowed to stand for 30 min. The treated resin was packed in a column. A Cr-contg. soln. (100 ppm pH 4.5) was passed through the column. The effluent contd. less than 0.1 ppm Cr until 20 l of the soln. was treated. (J50073898) (4pp)

ELEC-★ D15 D/34 ★RO-72-747
Closing cap for self-siphoning capsules, etc. - has elastic disc with radial projections of uniform dimensions and oriented in all directions

INTR ELECTROMETAL 13.12.72-RO-073136

(23.06.80) C02d-01/08

LARS/★ D15 61640 D/34 ★SE 7909-645
Trough for removing water from sand - has upper water separator feeding back to sand trap and lower outlet for dewatered sand

LARSSON G 22.11.79-SE-009645

(22.06.81) B01d-21/02

22.11.79 as 009645 (1444WB)

A device for sepg. sand from water, comprises a sand trap with a grating to collect large items. This has an outlet pipe through which the mixt. of sand and water can be pumped to a trough where the sand separates out, settles in the bottom of the tank and can be removed. The inlet pipe to the tank has a valve which can be partly closed to allow draining off a water to the sand trap, when the required quantity of sand has accumulated.

Used esp. for sepn. of sand from water in a sewage works. (Provisional Basic previously advised in Week D28). (6pp)

ZABO/★ D15 61672 D/34 ★SU-784-808
Electrodialyser ion-exchange membrane regeneration - using complex-forming amine cpd. aq. soln. and passing electric current of specified density, useful in water desalination etc.

ZABOLOTNIKOVA V F 20.12.74-SU-086087

J01 X25 (07.12.80) B01j-49

20.12.74 as 086087 (938GW)

Ion-exchange membrane regeneration is useful in water desalination and in purificn. of technological solns. by electrodialysis. The ion-exchange membranes in electrodialyser can be regenerated by treatment with aq. soln. of complex-forming amine cpd., e.g. 15% soln. of triethanol-amine.

The regeneration of spent ion-exchange membrane is increased up to 98% and the regeneration period is reduced to e.g. 12 min. with improved regeneration selectivity by passing electric current through the regeneration soln. The electric current density during the regeneration process must be higher than the electrodialyser's critical current density for optimal results. Bul. 45/7.12.80 (2pp)

AZAZ★ D15 61673 D/34 ★SU-784-909
Boiler feed water purificn. cation exchanger - regenerated by countercurrent passage of natural mineralised water at specified rate using middle drainage system

AZERB AZIZBEKOV PETROCHE 20.06.78-SU-652927

J01 (07.12.80) B01j-49

20.06.78 as 652927 (938GW)

Spent sodium cation exchange filters, used in power generator feed water purificn., can be regenerated by counter-current passage of the regeneration solns. Simultaneously from above and from below the cation-exchange filter, and removing the spent regeneration soln. through a drainage system in the middle.

In order to accelerate the regeneration of the spent cation-exchanger with mineralised natural water and improve the

TSHY = ★ D15 61728 D/34 ★SU-785-202
Purificn. of phenol-formaldehyde resin prodn. effluent - includes filtration, distillation, using copper oxide catalytic oxidn. to purify issuing steam

TASHK HYDRO GEOLOGY (OREK =) 08.07.76-SU-382675

A21 (A35) (07.12.80) C02f-01

08.07.76 as 382675 (835VE)

Effluent from phenol-formaldehyde resin mfg. is purified by condensation under acid conditions, sepn. of resinous deposit and distillation of methanol.

The process is simplified and a higher degree of purification is secured as follows: after removal of resinous deposits the partially purified effluent is neutralised to pH 5-6, methanol is removed by distillation and the residual liquor is oxidised catalytically over CuO at 300-350 deg.C. (2pp)

SIME = ★ D15 61729 D/34 ★SU-785-203
Liquid effluent cleaner - has air feed manifold in inverted cone clean water chamber with perforated cover and flotation chamber walls

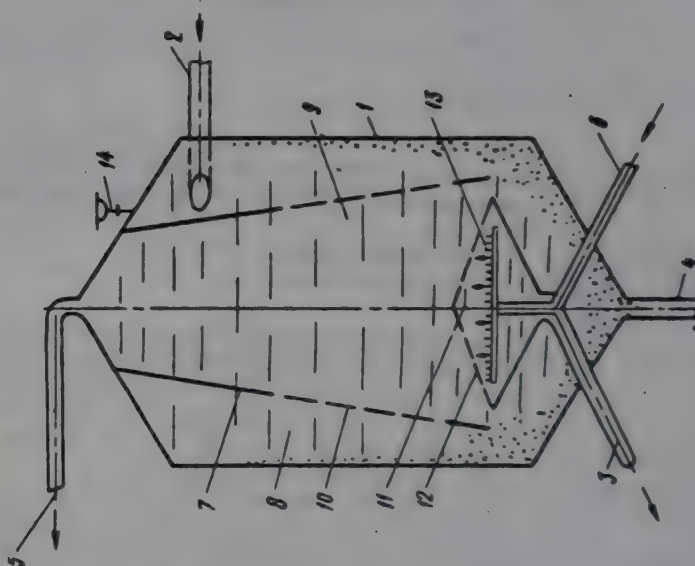
SIBE METALLURG WKS 05.09.78-SU-659356

(07.12.80) C02f-01

05.09.78 as 659356 (132VE)

The cleaner comprises a casing (1), and centrifugal separation (8) and flotation (9) chambers with a tangential feed pipe (2) and an air feed manifold (13) respectively.

To optimise the gravitational separation, a clean-water chamber (11) is made as an inverted cone with a perforated cover, and the manifold (13) is located in this while the flotation-chamber walls are perforated centrally. (2pp Dwg.No.1)



GELL/★ D15 61730 D/34 ★SU-785-204
Air separator for water - has jets formed by solid vertical rods with top plates to increase air evolution

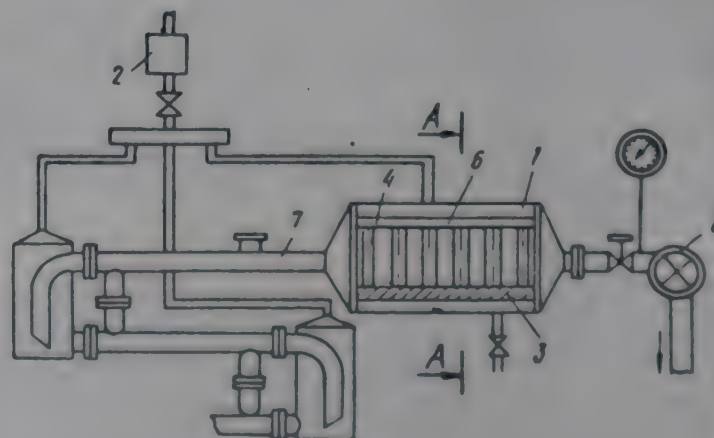
GELLER D YU 13.03.78-SU-589743

(07.12.80) B01d-19 C02f-01/20

13.03.78 as 589743 (132VE)

The separator comprises a separating chamber (1) housing rods of vertical rods (4), and an air discharger (2) communicating with the top of the chamber.

To increase performance, plates (6) are fitted to the tops of rods of one row, while all the rods are made solid, so as to form jets (5). (3pp Dwg.No.1)



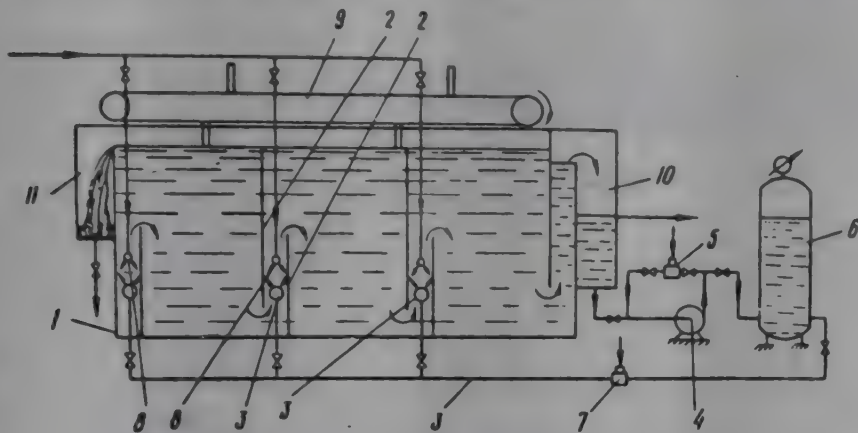
UWAT = ★ D15 61731 D/34 ★ SU-785-205
Liquid effluent etc. floatation tank - has parallel water feed pipes for communicating chambers with progressive dilution and impurity removal

UKR WATER ENG INST 10.11.78-SU-683332
(07.12.80) C02f-01/24

10.11.78 as 683332 (132VE)

The flotator for purificn. of ground waters or aq. waste contg. slime etc. comprises a rectangular casing (1) split up into communicating chambers by paired parallel partitions (2) flanking water-air-mixture feed pipes, a clean-water circulator pump (4) ejector (5) and pressure tank (6) assembly, a water inlet and outlet and a floated-impurity discharger.

To reduce energy expenditure, supplementary water feed pipes (8) are mounted between the partitions. Pref. a supplementary ejector (7) is fitted beyond tank (6). (3pp Dwg.No.1)



UYIR = ★ D15 61732 D/34 ★ SU-785-206
Removal of aromatic amine(s) from industrial plant effluent - by sorption on hydroquinone-formaldehyde part oxidised resin in alkaline medium, useful in aniline dye etc. mfg.

IRKUT UNIV BIOLOGY 30.03.79-SU-747381

A97 E24 F06 (07.12.80) C02f-01/28

30.03.79 as 747381 (835VE)

In aniline dye mfg. and in textile dyeing and coal chemicals mfg. inds., aromatic amines are removed from effluent by treatment with polymers. Better purification is secured by using as the polymer, hydroquinone-formaldehyde condensate, firstly oxidised with 12-15% HNO₃. Treatment is conducted at pH 7.5-8.0 for 30-60 min.

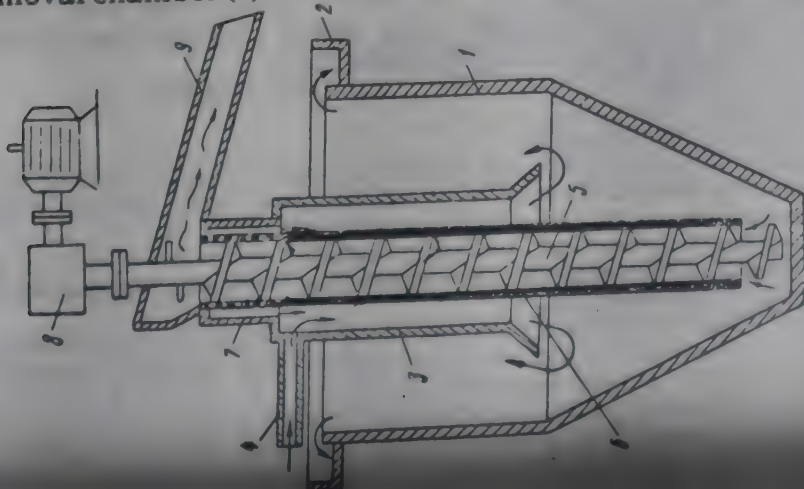
The polymer is made as follows: a reactor is charged with 9.1 mol hydroquinone, 31 mol HCHO (as 37% aq. soln.) and 0.82 mol HCl (as catalyst). The mixt. is heated to 80-90 deg.C. for 3-4 hrs. The polymer is cooled, washed, ground and treated with 10 l. 12-15% HNO₃ for 1 hr; it is then washed and dried. 1 g. product is mixed with 1 l. effluent at pH 7.5 contg. 2.10 power minus 3M alpha-naphthylamine. After 30 min. 72% of the amine is removed and after 60 min - 100%. Present procedure removes only 70-90%. Bul. 45/7.12.80 (2pp)

MLKO = ★ D15 61733 D/34 ★ SU-785-207
General purpose waste water settler - has shell cover with water removal chamber on perforated sediment remover, to facilitate drying

MOLD KOLKHOZZHIVPRO 25.05.78-SU-621097
(07.12.80) C02f-01/40

25.05.78 as 621097 (132VE)

The settler comprises a cylinder (1) housing a aq. suspension feed made as a central cylindrical shell (3) with a cover and a pipe (4), and a worm (5) in the sediment remover (6). To increase the sediment drying, the top of part (6) is perforated and has a water-removal chamber (7) on the shell cover.



The feed pipe (3) introduces suspension, the particles from which settle at the bottom of cylinder (1) and are carried by the worm to channel (9), after drying in the top of remover (6). The water descends into shell (3), which returns it for further settling and discharge via channel (2). Bul. 45/7.12.80 (2pp Dwg.No.1)

UCEL = ★ D15 61737 D/34 ★ SU-785-211
Electrolyser for cleaning paper-making aq. effluent - has alternating steel and graphite anode plates between effluent feed and cathode

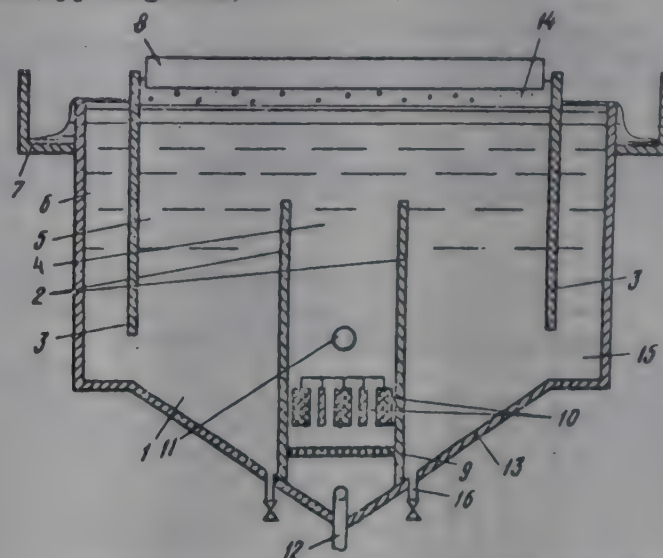
UKR CELLULOSE PAPER(AUCO =) 28.08.78-SU-677068
F09 J03 X25 (07.12.80) C02f-01/46

28.08.78 as 657068 (132VE)

The electrolyser comprises a tank (1) with vertical partitions (2,3), a horizontal cathode (9) below a vertical anode (10), a water feed and discharge, and a foam eliminator.

To increase efficiency, an electrolyte feed (12) below the cathode, supplements an effluent feed (11) above the anode made as a set of alternating steel and graphite plates.

Pref. the steel to graphite plate area ratio is 2:1 to 1:2. Bul. 15/7.12.80 (3pp Dwg.No.1)



LEEN = ★ D15 61738 D/34 ★ SU-785-212
Disinfection of natural and waste water - using ozonised air followed by low alternating current treatment with stepped rising voltage

LENGD ENG CONS INST(GORI =) 05.04.79-SU-757344
(07.12.80) C02f-01/48

05.04.79 as 757344 (835VE)

Water is disinfected by low power electrical discharge. Better disinfection is secured by operating as follows: the water is firstly aerated with ozone-air in the ratio 8:1-10:1, the air contg. 10-50 mg. O₃ per litre. The treated water is then subjected to alternating current and electrical discharge.

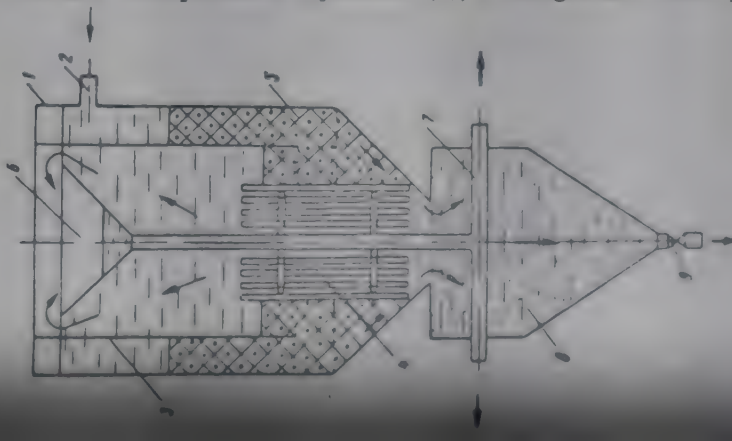
Typically, raw water contg. 6 x 10 power 3 bacteria per ml, with coli index 10 power 4, is mixed with air containing 20 mg O₃/l in the ratio 9:1. The water is passed to a cell fitted with electrodes carrying alternating current of 50 Hz, 220 V and treated for 1 min. The voltage is then raised to 750 V at 50 Hz. The number of bacteria per ml. of treated water falls to 8.5 and the coli index to 1.5. These figures are a 17-24% improvement over current methods of disinfection. Bul. 45/7.12.80 (2pp)

CSME = ★ D15 61739 D/34 ★ SU-785-213
Industrial aq. waste purificn. settler - has smooth ball type thin layer module to exclude ingress of suspended matter into clarified zone

CONS MATERIAL WORK 06.11.75-SU-187913
(07.12.80) C02f-01/52

06.11.75 as 187913 (132VE)

The settler comprises a cylinder (1), a tangential inlet pipe (2).



phase removers, and a thin-layer module. To reduce metalwork and exclude entrainment of suspended matter into the clarified zone, the said module is made as a charge of media (5) having a smooth spherical surface.

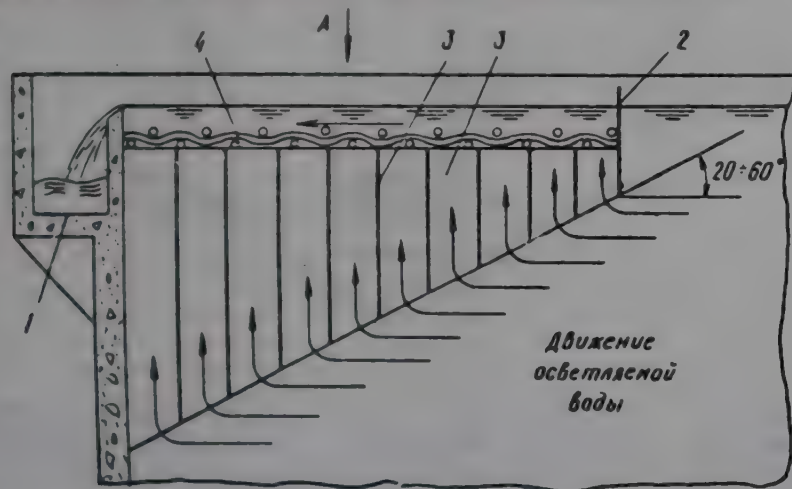
Typically, with cylinder (3), ring (4), 20-mm dia. glass balls, funnel (6), tube (7), and sludge accumulator (8) and discharger (9), a 1.0-m. dia. settler capacity 2 cu.m/h. of aq. effluent contg. 7-21 g/l of dolomite dust, gives 81.99% clarification. Bul. 45/2.12.80 (4pp Dwg.No.1)

FEPU ★ D15 61740 D/34 ★ SU-785-214
Industrial aq. effluent settler water collector tank - has constricting perforated plate, above tank sections formed by increasing length plates, to exclude transverse circulation
FERR METAL EFFL PURIF 16.11.76-SU-419756
(07.12.80) C02f-01/52

16.11.76 as 419756 (132VE)

The tank comprises a discharge chute (1) and a set of vertical intersecting plates (3) forming sections of the tank. To exclude transverse circulation in an ascending stream of liquid, a perforated plate (4) above the intersecting plates has 30-60% of the cross-section of the sections.

Pref., the length of plates (3) increases monotonically towards the chute, and their bottom edges are at 20-60 deg. angle to the horizontal. The water flowing horizontal over partition (2) is then directed upwards with intensive deposition through uninterrupted gravitational coalescence. This increases efficiency by a factor of 1.5-2. Bul.45/7.12.80 (2pp Dwg.No.1)



KAZV = ★ D15 61741 D/34 ★ SU-785-215
Settler for liquid effluent - has compressed air pipes between tank bottom and water impermeable lining extending to top of tank walls

KAZVODKANALPROEKT 07.09.78-SU-661276
(07.12.80) C02f-01/52

07.09.78 as 661276 (132VE)

The settler comprises a tank with a collector (4), and a feeder for this. To simplify operation, a water-impermeable material (1) lines the walls and bottom of the tank, while compressed-air pipes are between the bottom of the tank and the material.

As the sediment accumulates on the material (1), it slides down, the compressed air flow is cut down, and the settler is thus regenerated. This regeneration can be carried out at off-peak flow times. The horizontal bottom instead of a conical bottom enables the number of settlers required to be reduced. Bul. 45/7.12.80 (2pp Dwg.No.1)



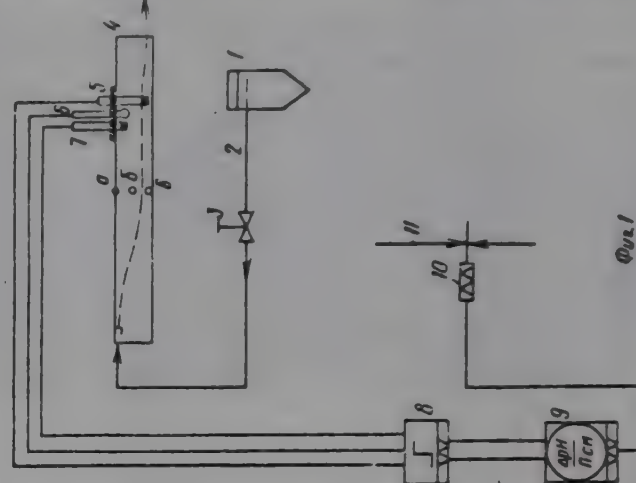
BOBR/ ★ D15 61742 D/34 ★ SU-785-216
Controlled coagulation treatment at e.g. water purific. plant - by varying coagulant flow-rate according to any difference in ionic activity between clarified liq. and coagulated residue

BOBROVNIK V M 25.09.78-SU-667071

T06 (07.12.80) C02f-01/52 G05d-27

25.09.78 as 667071 (840GW)

Controlled coagulation of liq. involves using an actuator (10) to vary the coagulant flow (11). The process is made more accurate and is intensified for use in the chemical ind., e.g. at water-treatment stations and installations. By varying the coagulant flow-rate according to the difference in ionic activity between the clarified liq. and the coagulated residue, two flows from an electrophoretic sensor no longer have the same optical density to mislead the actuator, and coagulant colloids can be held in an isoelectric state, e.g. in effluents treatment. (3pp Dwg.No.1)



UMET = ★ D15 61743 D/34 ★ SU-785-217
Open hydraulic cyclone type aq. waste settler - has combined settling and pumping via top water collectors bottom radial partitions and pump assemblies

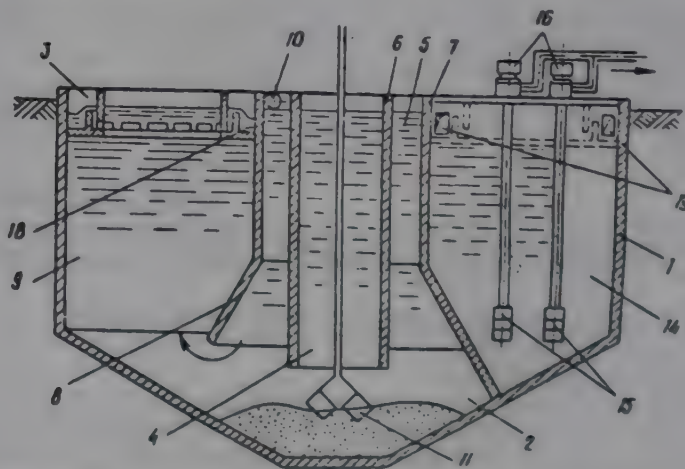
UKR METALLURG WKS(DNEN = DNME =) 06.12.78-SU-694036

(07.12.80) C02f-01/52

06.12.78 as 694036 (132VE)

The settler comprises a cylinder (1) with a conical bottom (2) and coaxial annular partitions, a tangential water feed pipe (10) and a peripheral water collector (3).

To combine settling with pumping, bottom radial partitions (13) flank pump assemblies, while water collectors (17), (18) above the partitions are linked to each other and to the peripheral collector (3). (3pp Dwg.No.2)



URAL = ★ D15 61744 D/34 ★ SU-785-218
Sand trap for aq. effluent - has sloped parallel partitions at bottom of casing, and sand collecting chute

URAL THERMOTECH INS 17.04.79-SU-756786

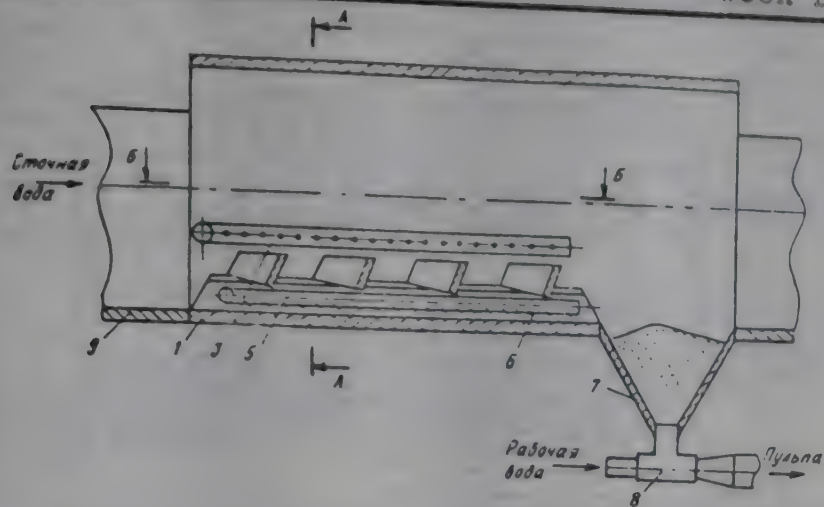
(07.12.80) C02f-01/52

17.04.79 as 756786 (132VE)

The trap for liquid effluent, comprises a horizontal casing (1), an aerator (3), a sand tray (4), a washing pipe (5) with jets (6), a sand-collecting chute (7), and a hydraulic hoist (8).

To reduce the bottom velocity, parallel sloped partitions (2) at the bottom of the casing are at 45-90 deg. to the horizontal and 90-135 deg. to the vertical.

The effluent entering via pipe (9) for aeration, has spiral motion imparted to it by partitions (2), which collect the sand and lead it into chute (7), for discharge by hoist (8). The water is introduced by pipe (5) and jets (6), the specific loading being 110 cu.m/sq.m. hr. at the mean hourly input of aq. effluent. Bul. 45/7.12.80 (3pp Dwg.No.1)



NSEN = ★ D15 61745 D/34 ★ SU-785-219
Purificn. industrial waste water - includes filtration through wood shavings, then polyurethane foam to improve removal of polychlorinated phenyl-benzene cpds.

NOVOS ENG CONS INST 06.06.78-SU-627673

A88 E14 J01 (07.12.80) C02f-01/58

06.06.78 as 627673 (835VE)

Polychlorophenyl benzene cpds. (I) are removed from effluent by settling and filtration, by two-stage filtration through wood shavings followed by polyurethane foam. Effluent contg. oil, (I) and mechanical impurities totalling 10 mg/l, is firstly filtered through wood shavings. 1 g. of the latter removes 0.48 g. of suspended (I). Further filtration through polyurethane foam is carried out to remove soluble (I) by absorption on the foam. 1 g. of the latter absorbs 3.4 g. dissolved (I). Bul. 45/7.12.80 (2pp)

UYKI = ★ D15 61746 D/34 ★ SU-785-220
Removal of alkaline earth metal cpds. from effluent - by two-stage deposition using sodium sulphate then carbonate, to improve strontium removal

KIEV UNIV 26.04.79-SU-759418

E33 M14 (10.12.80) C02f-01/58

26.04.79 as 759418 (835VE)

Effluent contg. alkaline earth metals is treated with Na_2CO_3 and filtered to remove the former. If Sr is present, it is more readily removed by preliminary treatment with alkali and a soluble sulphate. The method can be used in non-ferrous metal treatment plants and chemicals mfr.

Typically, effluent from iodine-Br mfg. plants contg. (g/l): Ca 10, Mg 2, Na 50, K 5, HCl 0.4, Sr 0.5 is treated with 8.9 g/l $\text{Ca}(\text{OH})_2$ to pH 11. There are then added 143 g. $\text{Na}_2\text{SO}_4 \cdot 10 \text{H}_2\text{O}$ which precipitates much of the Ca and 75% of the Sr. The clear supernatant liquor after standing is treated with 4.5 g. Na_2CO_3 per l. After settling for 48 hrs., the Sr content falls to 3 mg/l which is an acceptable norm. The above procedure reduces the Sr content of effluent to 0.6% and Ca to 0.2%; simultaneously expenditure of Na_2CO_3 is reduced from 40 to 4.5 g/l. Bul. 45/7.12.80 (2pp)

PLOT/ ★ D15 61747 D/34 ★ SU-785-221
Neutralisation of acidic metal ions contg. aq. effluent - by addn. of soda followed by electrolysis with steel electrodes to avoid excess salt build-up

PLOTNIKOV NI 06.05.74-SU-021613

M14 (10.12.80) C02f-01/66

06.05.74 as 021613 (835VE)

The mineral salt content of acidic aq. effluents contg. iron and non-ferrous metal cpds. is reduced if after treatment with alkali to pH 8 the effluent is electrolysed in a cell fitted with sol. anodes.

Typically, to 250 ml. soln. contg. 100 mg/l Fe^{2+} and 300 mg/l H_2SO_4 are added 516 mg/l Na_2CO_3 . The slurry is well stirred for 10-20 min. to remove excess CO_2 and the pH is adjusted to 7.45. The liquor is run into a cell with steel electrodes 6-40 mm. apart. The anode surface is 15-20 times less than that of the cathode. Electrolysis is conducted at 2.4-3.8 A/sq.dm., vol. density 2-3.2 A/l, 70V. After 2.5 to 6 min. the pH reaches 9.75 and the Fe content falls to 0.06 mg/l. Using this procedure, the total salt content of the treated effluent is 3 times less than with alkali treatment alone. Bul. 45/7.12.80. (2pp)

TINR = ★ D15 61748 D/34 ★ SU-785-222
Cyanide- and sulphide-contg. slurried effluent purificn. - includes simultaneous treatment with bleaching powder and flocculation with aq. polyacrylamide soln.

TIN RES INST 01.07.75-SU-151436

M14 (M25) (10.12.80) C02f-01/76

01.07.75 as 151436 (835VE)

Effluent from metal plating. Au- extg. plants contg. cyanide and

sulphide slurries is purified by treatment with chlorine-contg. cpd. bodies. The overall insol matter content of the slurry is reduced and less Cl-contg. cpd. is required, if a flocculant is added simultaneously. The flocculant consists of 20-40 mg/l polyacrylamide. The method can be used in chemical and ore enrichment industries.

Typically, 500 ml. of slurry at pH 11.4, contg. 19.8 mg CN/l, 20.1 mg CNO/l and 317 mg/l dry residue, solid: liquid ratio 1:16, is treated with 602 mg/l bleaching powder and 30 mg/l polyacrylamide as a 0.1% soln. After stirring for 10 min. and filtering, the filtrate was free from CN and CNO; the dry residue was 420 mg/l. Under present conditions the filtrate contains 0.04 mg/l CN, 0.06 mg/l CNO and 1248 mg/l dry residue. Purificn. is improved 3-fold, reagent demand is reduced 4-fold by the use of the above method. Bul. 45/7.12.80 (2pp)

NONA = ★ D15 61749 D/34 ★ SU-785-223
Removal of sulphate-reducing bacteria from spring-water - using sodium hypochlorite followed by carbon dioxide gassing

NON ALCOHOL BEER 22.05.78-SU-618309

E32 (10.12.80) C02f-01/76

22.05.78 as 618309 (835VE)

Natural spring water is treated with various reagents, e.g. AgSO_4 , prior to bottling. Sulphate-reducing bacteria are destroyed by treating the water with 0.2-0.4 mg/l of a reagent contg. active Cl_2 , e.g. NaOCl .

Typically, 100 ml. spring water, e.g. 'Sirab-12', contg. 10 power 4 sulphate-reducing organisms per ml. are treated with 100 ml. NaOCl soln. contg. 1.2 mg. active Cl per ml. The absorptive capacity of the water is 0.9 mg/Cl per l. The residual chlorine content after 30 min. is 0.3 mg/l. The product is gassed with CO_2 and bottled. After 6 months storage, sulphate-reducing bacteria are absent. Bul. 45/7.12.80 (2pp)

GROD = ★ D15 61750 D/34 ★ SU-785-224
Caprolactam etc. mfg. plant aq. effluent purificn. - using biologically active sludge with addn. of riboflavin to improve oxidn. of organic cpds. and redn. of nitrate(s) at high concn.

GRODNENSK AZOT COMB 05.04.79-SU-747107

A41 E13 (10.12.80) C02f-03

05.04.79 as 747107 (835VE)

Chemical plant effluent is freed from nitrates and organic impurities by biologically active sludge. The removal of high concn. of nitrates from caprolactam plant effluent is improved by adding riboflavin to the sludge. Typically, 3 l. active sludge are treated with 1-10 micro-g riboflavin per ml. of sludge. Effluent at pH 7.2 is passed through over a 24 hr. period. The effluent contains (in mg/l): nitrate N(NO_3) 510, ammoniacal N (NH_4) 70, nitrite N(NO_2) 16.2, phosphates 9.24. The temp. is 26 deg.C. and the chem. O₂ demand of the effluent is 4080. The sludge content of the purifier is 7.0 mg/l. After treatment, the effluent at pH 9.2 contains: NO_3 absent, NH_4 4.8, NO_2 0.08, phosphates - traces. The chem. O₂ demand is 510.

Overall purificn. of aq. waste using above method is improved by 100% and nitrate removal is improved 2-2.5 fold. Bul. 45/7.12.80 (2pp)

WATE = ★ D15 61751 D/34 ★ SU-785-225
Aq. effluent cleaner - has sludge traps with water drains and plate for discharge of fermented sludge crust after stabilisation

WATER SUPPLY PURIF 18.08.78-SU-655468

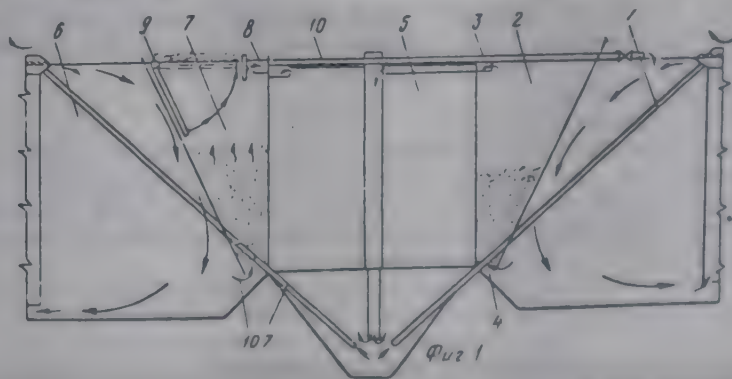
(10.12.80) C02f-03/12

18.08.78 as 655468 (132VE)

The cleaner comprises an aeration tank (1), an aerobic stabiliser (6), and a central secondary settler (5).

To increase the activated-sludge dose and reduce the stabilised-sludge moisture content, sludge traps (2,7) in parts (1,6) have water-removal channels (3,8), a rotating sloped plate (9) with a hinge, and a top piping (10) linking parts (1) and (3).

Thus, productivity is increased 25% and the dispersion of the results does not exceed 10-15%. (3pp Dwg.No.1)



MESH/ ★ D15 61752 D/34 ★ SU-785-226
Aq. effluent aerator - has tongued cone, disc and ring and spaced location, for intensive liquid circulation

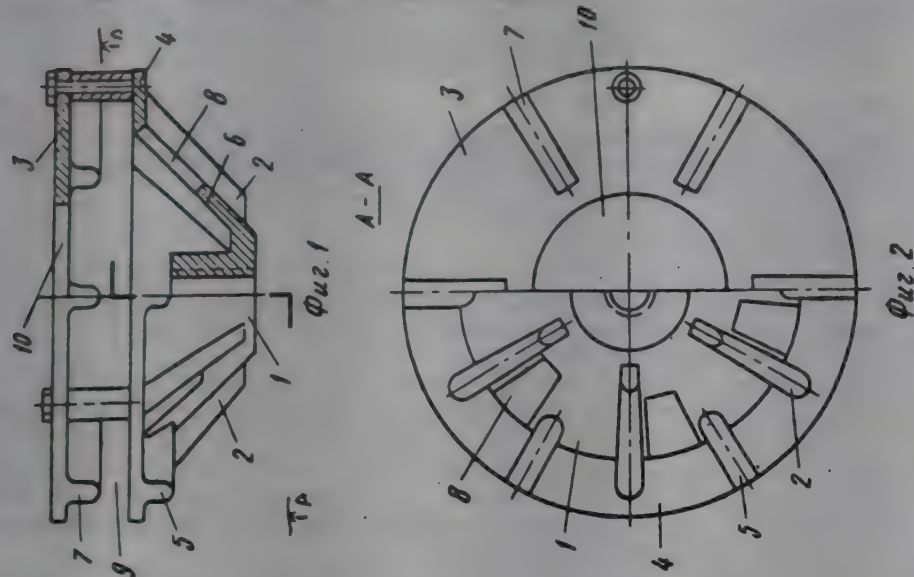
MESHCHERYAKOV NF 22.07.77-SU-509543

(10.12.80) C02f-03/16

22.07.77 as 509543 (132VE)

The aerator comprises a truncated cone (1) with external tongues (2), and a disc (3) on the larger base of the cone.

To circulate the effluent, a ring (4) on the larger base of the cone has bottom tongues (6) while there are also tongues inside the cone and the disc, those on the disc being staggered relative to those on the outside of the cone, and the disc is spaced relative to the large base of the cone. (3pp Dwg.No.1)



MAKS/ ★ D15 61753 D/34 ★ SU-785-227
Aq. effluent aerator - has variable slope foam suppression disc below concentric distribution funnel, used in biological waste water purificn.

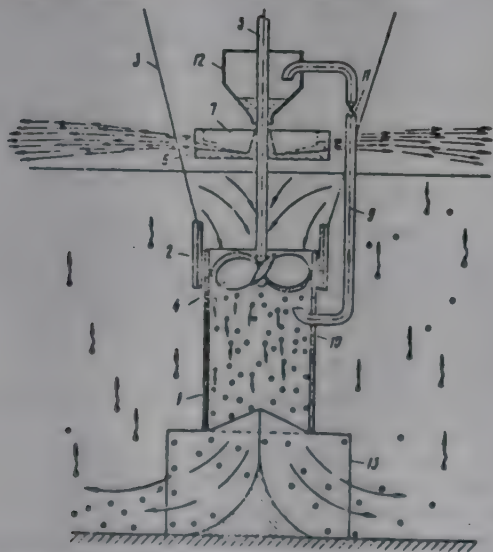
MAKSIMOV G M 02.10.78-SU-690552

(10.12.80) C02f-03/22

02.10.78 as 690552 (132VE)

The aerator comprises a casing (1) and a mechanical screw (4) below a plane-disc-type foam suppressor (6) with partitions (7) and a collector.

To increase the foam suppression zone, a concentric distribution funnel (12) above the disc, supplements location of the sectors of the disc between the partitions at different angles to the horizontal in the range 0-15 degs. (3pp Dwg.No.1)



FORE = ★ D15 61754 D/34 ★ SU-785-228
Bio-filter for liquid effluent - has chequered perforated frames holding the filter bed, to facilitate contact with oxygen and water

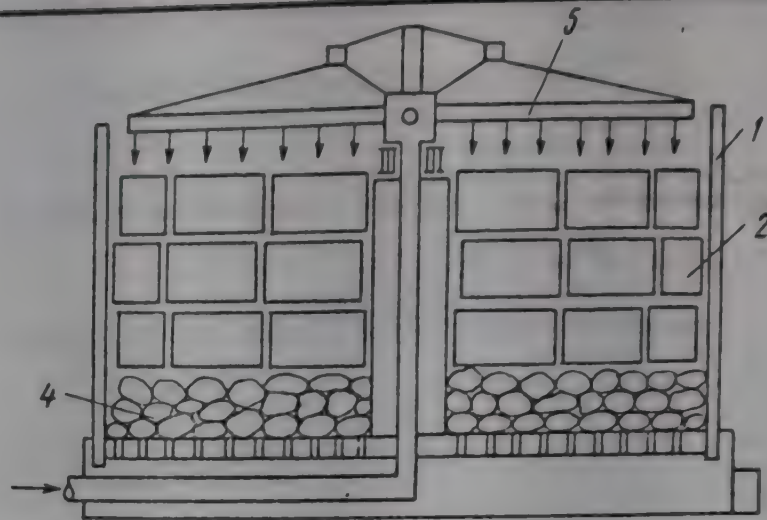
FOREST TECH IND RES 26.04.79-SU-758038

(10.12.80) C02f-03/24

26.04.79 as 758038 (132VE)

The biofilter comprises a casing (1) with a charge (2). To exclude movement of the latter and promote regeneration, rigid perforated frames for the charge are arranged in spaced chequered formation in horizontal rows and made as equiangle triangular and trapezoidal prisms.

The water from distributor runs down the charge, contacting the biological film and the oxygen in the air without any motion of the charge. Thus regeneration is accelerated, and the honeycomb formation of the charge facilitates contact of the film with the oxygen and the water. Bul. 45/7.12.80. (3pp Dwg.No.1,3)



NONF = ★ D15 61755 D/34 ★ SU-785-229
Biochemical removal of flotation agents from metallurgical effluent - using soil microorganisms cultured in nutrient medium contg. addn. of ammoniated cationite to stimulate growth and activity

NON FERR METAL ENRI(AKMI=) 31.07.78-SU-679208

A97 (D16) (10.12.80) C02f-03/34

31.07.78 as 679208 (835VE)

Organic cpds. are removed from effluent biochemically by culturing soil microorganisms, adding a N-source as nutrient. The process is simplified and flotation reagents from mineral dressing plant can be destroyed, by using as the microorganism nutrient, contg. addn. of ammoniated cationite (pref. KU-2 ion exchange resin).

Typically, to 1 l. effluent contg. 10 mg. flotation reagent (methylisobutylcarbinol), is added a culture of soil microorganisms followed by 10 g. KU-2 resin satd. with NH₄ ions. After digestion for 48 hrs. at 22-24 deg.C., 100% of the flotation reagent is destroyed against 75% if other sources of N₂ are used as nutrient. culture Bul. 45/7.12.80. (2pp)

AGRI = ★ D15 61757 D/34 ★ SU-785-231
Anaerobic fermenter for organic waste matter - has arcuate blades facing in direction of rotation of shaft fitted with turbulisers and extending into discharge pipe

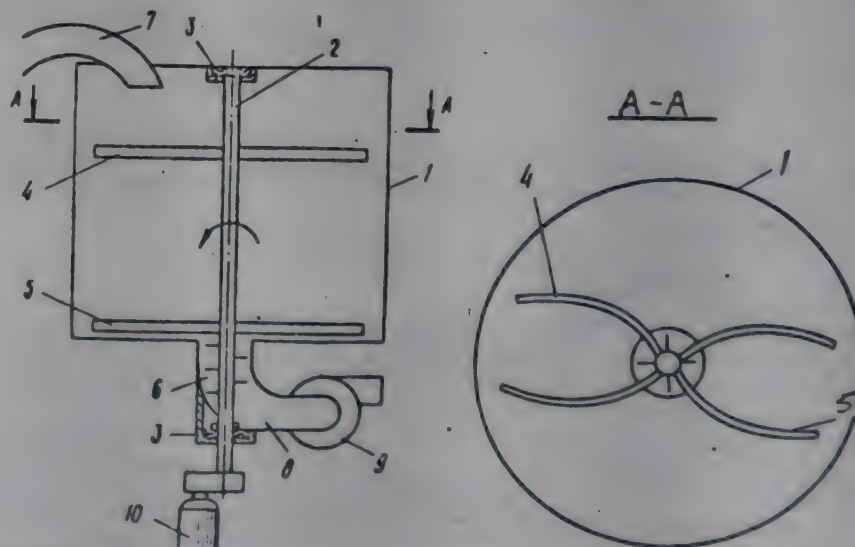
AGRIC ELECTRIF RES 20.01.78-SU-571722

(D16) (17.12.80) C02f-11/04

20.01.78 as 571722 (132VE)

The fermenter comprises a cylinder (1) with a coaxial rotating shaft (2) carrying a set of top mixing blades (4), above scrapers (5) and axial top and bottom discharge pipes.

To permit treatment of material contg. fibrous inclusions, the shaft extends into the bottom pipe (8) and has rod-type turbulisers (6), while the blades are made as arcs with their convex surface facing in the direction of rotation of the shaft. (2pp Dwg.No.1)



WATE = ★ D15 61758 D/34 ★ SU-785-232
Biologically treated sewage deposits concn. without compression units - using ammonium carbonate or bicarbonate as flotation agents to utilise waste in fertiliser mfr.

WATER SUPPLY CANAL 11.05.73-SU-922281

(17.12.80) C02f-11/12

11.05.73 as 922281 (835VE)

Concn. residue from biological sewage purificn. plant suitable for agricultural fertiliser mfr. is obtd. without pressing by flotation using 30-35 kg. per 1000 kg dry matter, NH₄HCO₃ or (NH₄)₂CO₃ as flotation agent. The product is preheated to remove

Typically, 500 ml. slurry from biologically treated sewage, water-content 98%), are treated with 4g. NH_4HCO_3 . The product is heated at 86 deg.C. for 7 min. during which time gas bubbles are removed and the deposit separates into a liquid phase and a floating solid phase; the latter contains 20% water, (4.5 fold conc.). The prod. is suitable for use as a fertiliser. This procedure avoids the need for a compressing section on the flotation unit. Bul. 45/7.12.80. (2pp)

ARKH = ★ D15 61759 D/34 ★ SU-785-233
Waste water biological treatment active slime - processed by addn. of iron sulphate, lime, bleaching powder and igniting product for use as sorbent in aq. waste purificn.

ARKHAN FOREST TECH 03.05.78-SU-610180
(17.12.80) C02f-11/12

03.05.78 as 610180 (835VE)

In large scale effluent treatment, the active slime is processed for subsequent use as sorbent in waste water purificn. by adding Fe salts and lime, dewatering, drying and pyrolysis. The sorbent capacity of the sludge is raised by the further addn. of a Cl-contg. body, e.g. bleaching powder.

Typically, 1 l. active sludge (water-content 97.75%) is treated successively with stirring, 4.5 g. copperas (as a 10% soln.), 7.66 g. CaO as a 6% suspension and 5.63 g. bleaching powder as a 10% suspension. The product is filtered and dried. 20 g. dry product is heated to 950 deg.C. for 1 hr., yielding 47.2% residue. Details are provided for testing its absorptive props. on raw sewage. Chem O2 demand fell from 1037 to 584 mg/l. The product is suitable for boosting the absorptive capacity of plant sludge. The gas evolved during heat treatment is used as fuel. Bul. 45/7.12.80 (2pp)

HAJT D15 35167 A/20 = SU-786-858
Oil-water emulsions treated by macro-filter and hydrocyclone - with alternate cycling through each followed by sepn.

HAJ TOMUVEK ESHFESH (HAJT) 03.11.76-HU-HA1026

J01 + P41 (10.12.80) *DE2736-691 B01d-17/04

29.09.77 as 525551 (GW)

Oil-water emulsions are treated by circulating the emulsion alternatively through a macrofilter and through a hydrocyclone. This enables both heavy constituents and an oil phase to be drawn off the circuit. Pref. the oil phase is recycled and the oil concentrate obtd. is treated in a settling tank, the settled aq. liquid being returned to the emulsion.

The method is simpler and more rapid than previous methods for treating oil-water emulsions. Bul. 45/7.12.80 (5pp)

VILY/ ★ D15 61999 D/34 ★ SU-787-061
Fibrous volumetric water filter - has twin top loosener(s) for filter bed, and hydraulic trap with telescopic tube, to reduce water consumption

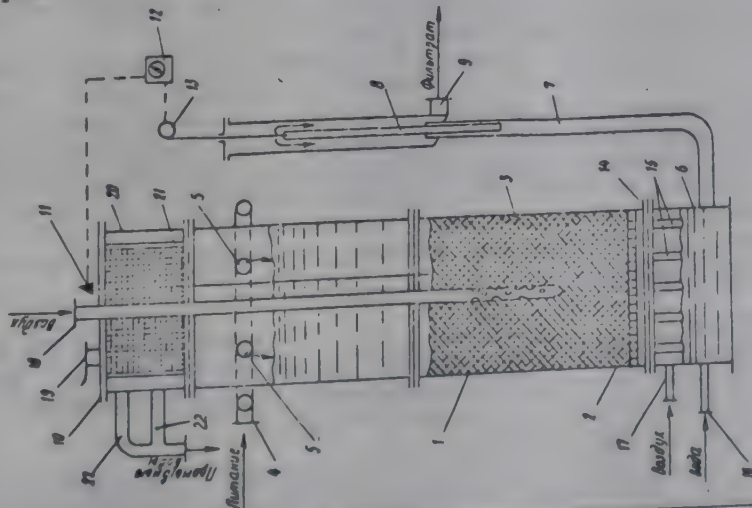
VILYANSKII M P 06.09.78-SU-661175

(15.12.80) B01d-23/24

06.09.78 as 661175 (132VE)

The filter comprises a cylinder (1) with liquid filtrate air and regenerating-water pipes, a grating (2) carrying the charge (3), and a loosener for this latter, made as a set of vertical tubes (18) with their perforations in the charge.

To increase capacity and reduce water consumption, a supplementary loosener, horizontal, under the drainage grating (21), is accompanied by a hydraulic trap (7) with a telescopic tube (8). (3pp Dwg.No.1)



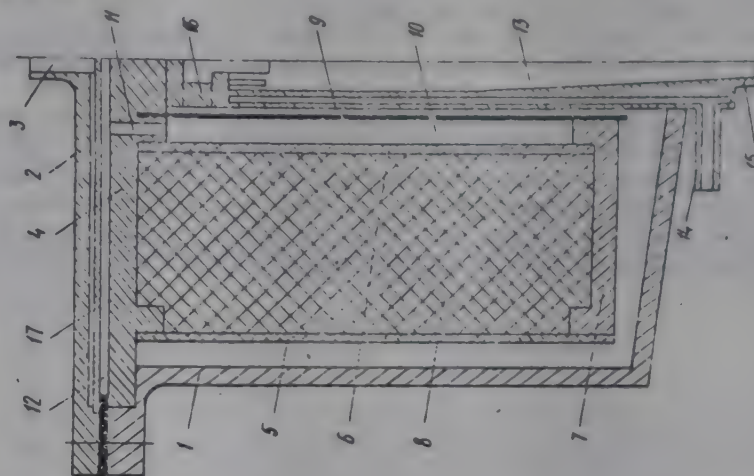
BARA/ ★ D15 62000 D/34 ★ SU-787-062
General purpose water cleaner - has trap on central cylinder linked to sepn. disc and filtration partition beyond this

BARABANOV V I 30.10.78-SU-678435

(15.12.80) B01d-27

The cleaner comprises a cyclone (13), a casing (1) with a filter element, and a cover (2).

To increase the filtration time, a sepg. disc (4) has a cylindrical shell (9) concentric between the cyclone and the element and with a trap (7) at the bottom of it, while the top of the shell is linked to the disc and a filtration partition (17) between parts (4) and (2). (2pp Dwg.No.1)



KATZ/ ★ D15 62102 D/34 ★ US 4282-067
High volume liquid distillation - using auxiliary gas turbine to drive vapour compressor

KATZ J 10.08.79-US-065466 (28.04.76-US-681290)

J01 (04.08.81) C02f-01/04

10.08.79 as 065466 Div ex 4186058 4186050 (+22.2.77, 18.4.77-US-769291, 787832) C.i.p. 4035243 (525BZ)

A closed system for high volume distillation of impure liqs. comprises an evaporator for producing from the liq. a vapour at ambient pressure and a temp. not exceeding a pressure corresponding to said evapn. temp. under satd. conditions.

The vapour is fed to a compressor to increase its pressure and temp. and the so treated vapour is fed to a condensn. within the evaporator where the heat of condensation is used to aid evapn. of the impure liq. An auxiliary turbine, driven by gas flowing around the housing contg. the compressor is used to aid the action of the compressor. The gas used to drive the auxiliary turbine may be derived from clean or dirty fuels, e.g. jet fuel or garbage. The exhaust gas from the turbine may be used to preheat the vapour before it is passed to the condensor.

The appts. can use clean or dirty fuels and is energy efficient. The invention may be used to clean dirty water or brine. (14pp)

EGOS/ D15 89740 B/50 = US 4282-070
Generating heat, cooling capacity and pure water - from aqueous feed in multistage flash evaporator with steam jet ejectors

EGOSID 30.05.78-US-910098

Q72 Q74 Q75 + Q55 (04.08.81) *EP---5-825 F22d-01 + C02f-01/04

30.05.78 as 910098 (006HM)

Energy conversion system for steam generation with fuel effectiveness, uses feed water at ambient temp., or industrial effluents with waste heat content, and produces vapour from them in an under-pressure enclosure giving boiling-point redn.

Heat is recovered and re-cycled by condensation, which also produces pure water as condensate. Only part of the vapour is condensed, the remainder being compressed, along with injected steam, to form a heat energy source. (18pp)

HITA D15 35514 C/20 = US 4282-092
Inorganic adsorbent for removing transition metals from hot water - comprises mixt. of titanium oxide and alumina with specified molar fraction of titanium oxide

HITACHI KK 29.09.78-JP-119255

J01 K08 (04.08.81) *J55047-142 C02f-01/42 + B01j-21/04

01.10.79 as 080468 (931HM)

An inorganic particulate adsorbent of a titania-alumina system is prepd. for treating super heated water contg. radio-active materials. The process comprises hydrolising a titanium alkoxide and an aluminium alkoxide to form their respective hydrous oxides; precalcining the prods. formed to form titania and alumina, then mixing and moulding to prepare a particulate mixt. which may be calcined in an oxidative atmos. to form the prod. Pref. the alkoxides used are the respective isopropoxides. The prod. is free from release of corrosive impurities, has a high adsorption capacity of radioactive material (e.g. cobalt ions) and a high mechanical strength. (5pp)

HITA D15 15664 C/09 = US 4282-093
Measuring size of floc in sedimentation tank - in water purificn. process, by determining pressure differential

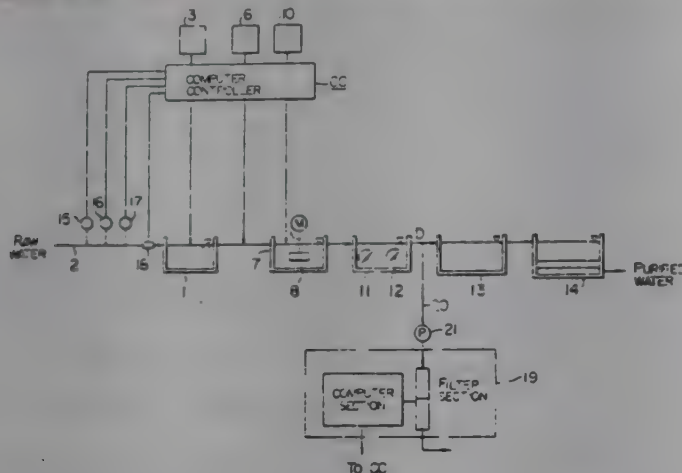
HITACHI KK 05.07.78-JP-081006

S02 (04.08.81) *J55008-828 B01d-21/* + C02f-01/52

06.07.79 as 055464 (1358BZ)

To detect coagulation effect in water purificn. plant with coagulant dosing unit(10), flocculation basin(11) allowing floc growth, and sedimentation basin(13) for floc sepn., water with grown floc taken from the line between the basins(20) to a filter with a layer of filter medium and a filtration pressure detector at a given level in the layer to monitor pressure change rate.

Improper dosage of coagulant is detected from the pressure change rate and is signalled. The change rate is pref. calculated by a computer which can emit an alarm signal and compares detected and reference pressures, with correction of flow rate at specific time intervals. The filter is pref. a cylindrical column with top inlet and bottom outlet through a perforated plate. (14pp)



KUEP/ ★ D15 62118 D/34 ★ US 4282-097
Waste water purifying appts. - comprises stilling vessel housing fabric filter tube with controllable outlet for flushing

KUEPPER T A 24.09.79-US-077959

A88 F03 J01 (04.08.81) B01d-25/32

24.09.79 as 077959 (006)

Aerated waste water, specifically with oil and solid particles, is fed into the fabric filter tube under pressure, the tube being inside a stilling vessel and having its outlet controlled by a valve which is operable to cause the ingoing waste water to flush caked particles from the tube bore periodically.

Flexibility of the fabric filter tube assists the flush-out of filter cake from its bore, giving continuous operation. Pref. the stilling chamber has oil-removal provisions. (10pp)

REXN ★ D15 62121 D/34 ★ US 4282-102
Activated sludge waste water treatment - by addn. of inert particulates to liq. in the aeration ditch to provide mobile sites for microorganism growth

REXNORD INC 29.11.79-US-098693 (11.09.78-US-940923)
(04.08.81) C02f-03/08

29.11.79 as 098693 C.I.p. 940923 of 11.09.78 (678AT)

Wastewater is treated as follows; (a) wastewater contg. organic materials (I) is introduced to an oxidn. ditch; (b) an inert, solid, particulate material (II) is added, (c) the mixt. is circulated horizontally by turbulent flow so that (II) remains in suspension and living organisms are allowed to attach to and grow on (II); (d) the suspension is aerated to promote growth of the microorganisms; (e) higher concns. of (II) at the outer wall of the oxidn. ditch are obtd by use of centrifugal forces; and (f) wastewater only is withdrawn from the interior wall of the ditch (all the organisms and (II) remain within the reactor).

(II) has specific gravity 2-5.5, pref. 2.5-5.5; particle dia. 0.3-1.2mm (I); and amt. added is 0.5-2 l/kg of biota in reactor fluid. (II) is suitably sand, quartz, Al₂O₃, ZrO₂ chromite, coal, gravel, glass, plastic, TiO₂ or magnesia.

Process needs less power to pump reactor effluent to the clarifier and less power to pump clarifier sludge back to the reactor than known similar systems; and also has clarifier tank capacity, and associated piping and pumping appts. smaller than similar treatment systems. (6pp)

PETR. ★ D15 62122 D/34 ★ US 4282-103
Treating tar sand tailings for solids removal - by controlled addn. of flocculant to optimise filtration

PETRO-CANADA EXPLOR(ALBE- PANC- ESSO) 20.11.79-US-096177

H01 (04.08.81) B01d-21/* C02f-01/52

20.11.79 as 096177 (920HM)

In the hot water process for the extn. of bitumen from tar sands, where a solids-laden aq. whole tailings stream contg. coarse and

fine solids) is obtained as a waste prod. the improvement comprises (a) treating the tailings stream with a flocculating agent (I) to flocculate both coarse and fine solids and produce settled aggregates, (b) simultaneously monitoring the zeta potential of the fine solids left in suspension, (c) continuing addition of (I) until the zeta potential becomes zero, and simultaneously (d) separating the constituents of the stream to produce a water-free solids phase and a clarified aq. phase.

The control of flocculant dosage optimises filtration, leading to rapid filtration rates, low cake moisture and low solids level in the filtrate. (7pp)

PACI/ ★ D15 62123 D/34 ★ US 4282-104
Water treatment esp. for swimming pools - comprises adding ascorbic acid to chlorinated water to destroy carcinogens

PACINI A J 22.02.77-US-770445 (16.07.75-US-596368)

E13 (E32) (04.08.81) C02f-01/76

22.02.77 as 770445 (985RH)

Water treatment comprises (i) adding chlorine to a concn. in excess of that required to sanitise the water supply and (ii) adding ascorbic acid to inactivate the excess chlorine. The concn. of the ascorbic acid is sufficient to destroy existing carcinogens and prevent the formation of carcinogens while leaving a residual free chlorine concn. in the water supply sufficient to sanitise the water. Pref. copper sulphate is also added to catalyse the inactivation of the chlorine by the ascorbic acid. The concn. of the copper sulphate is pref. 1.5% of the concn. of the ascorbic acid required in the absence of copper sulphate; and this reduces the required ascorbic acid concn. by 75%.

The treatment is esp. for swimming pool water. (6pp)

BETZ ★ D15 62127 D/34 ★ US 4282-111
Removal of oxygen in aq. boiler condensate steam systems - by addn. of hydrazine free aq. hydroquinone as oxygen scavenger

BETZ LABS INC 28.04.80-US-144725

E14 (04.08.81) C02b-01/10 C09k-03 C23f-11/06

28.04.80 as 144725 (478NS)

The amt. of O₂ in aq. boiler condensate steam systems is reduced by addn. (as sole O₂-scavenger) of an aq. soln. of hydroquinone (I).

(I) is not only much less toxic than the known O₂-scavenger N₂H₄, but is also more reactive at room temp. than H₂H₄. In addn., (I) is stable to higher temps. than N₂H₄ and is esp. useful for treating O₂-contg. feedwater to a boiler. (5pp)

KATZ/ ★ D15 62282 D/34 ★ WP 8102-088
Distillation of impure liq. at high vol - uses fractional distillation followed by compression and vapour adjustment to give improved energy use

KATZ J 15.01.81-US-224072 (28.01.80-US-115615)

E17 J01 P14 (D16) (06.08.81) A01k-59 B01d-03 C07c-29/80

27.01.81 as U00123 (+15.1.81-US-224071) (1050DJ) (E) US4035243
US4186058 US4186060 US3423293 US3598607 US2356218 US3671404
US4232177 US4217178 US2152164 US2509136 US3414484 US4177111
US2806082 US1184491 US2584305 US3303519 US2807034 US1615158
US2248893 US3290705 US3735433 N(AU BR DE GB JP NL SE)
E(FR)

High vol. distillation of impure liq., particularly water, wherein the liq. is fractionally distilled to form a vapour which is then compressed. At least a portion of the compressed vapour is passed through a vapour composition adjustment zone wherein the composition is altered or stabilised. Vapour leaving the zone is compressed and cooled by heat exchange with the impure liq., the liq. condensate resulting being collected.

Processing of aq. ethanol to recover anhydrous ethanol therefrom derived from the fermentation of honey solns., the honey being produced in large vol. in an automated manner. Other applications include crude oil-water, crude oil bottoms, shale oil, and methyl-ethyl ketone and water. The distillation system can be installed in ships. The zone can include a catalytic cracking polymerisation process for producing fuel.

Max. use of thermal energy producing more economical system. (91pp)

HUMI/ ★ D15 62308 D/34 ★ WP 8102-154
Sea-water desalination appts. - uses warm surface water in vapour generator and cool deep water in vapour condenser

HUMISTONG F 28.01.80-WP-U00081

(06.08.81) C02f-01/06

28.01.80 as U00081 (006DJ) (E) US2006985 US3032482 US3158554
US3080302 US3783108 US3928145 US1966938 US1445134 US3468762
US3269919 US2636129 N(BR DK JP MG) E(AT CH DE FR GB LU
NL SE CG GA SW TG)

A pipe with a circulation pump joins the evaporator to the warm sea surface, and acts to separate the low internal pressure of the evaporator from atmos. press. The evaporator is joined to the vapour condenser by a pipe contg. a vapour-driven prime mover. Another pipe has a pump which circulates cool (deep) sea water

to the condenser. Pref. the prime mover drives an electric generator supplying power to the pumps.

Temp. differential between surface and deep ocean waters is used for both desalination and power prodn. (19pp)

See Also

D22 DE 3094435

D16: FERMENTATION INDUSTRY

RICT ★ D16 80440 D/34 ★ BE -887-391
Fermentative prodn. of ergot alkaloid(s) - using new strain of *Claviceps purpurea*

RICHTER GEDEON VEGY 08.02.80-HU-000282

B02 (05.08.81) C07d

05.02.81 as 887391 (367BZ)

Prodn. of ergot alkaloids (I), esp. ergocornine (Ia) and beta-ergocryptine (Ib), is carried out by culturing the new mutant strain *Claviceps purpurea* MNG 00186 under aerobic conditions in a nutrient medium contg. C and N sources, mineral salts and opt. other additives.

The culture medium pref. also contains precursors of (I), esp. valine and/or isoleucine, in an amt. of 0.05-0.5 (esp. 0.1-0.3) g/100 ml. The culture is pref. maintained at 20-26 deg.C and pH 5.2-6.8 for 4-8 days.

The new strain produces practically only the components of ergotamine, viz 55-60% (Ia), 25-30% (Ib), balance alpha-ergocryptine (Ic), with only minor amts. of ergometrine. (12pp)

RICT ★ D16 60441 D/34 ★ BE -887-392
Regulation of fermentative ergot alkaloid prodn. - by adding precursor or stimulant for isoleucine biosynthesis

RICHTER GEDEON VEGY 05.02.81-BE-887392

B02 (05.08.81) C07d

05.02.81 as 887392 (367BZ)

A process is claimed for regulating the amt. and proportions of alkaloids obtained by culturing mutant strains of *Claviceps purpurea* which produce principally ergocornine (Ia), alpha-ergocryptine (Ib) and beta-ergocryptine (Ic). The process comprises using a cpd. which acts as a precursor for isoleucine biosynthesis, or which stimulates isoleucine formation by biochemical control, as a regulator during conventional fermentation.

The regulator can be methyloxalacetic acid, alpha-ketobutyric acid, threonine, homoserine, homocysteine and/or methionine. It can be used in an amt. of 0.01-10 (pref. 0.05-5.0) g/l.

The proportions of (Ic) can be increased to the level required for prodn. of dihydroergotamine, which is used as the (m)ethanesulphonate for treatment of peripheral and cerebral circulatory disorders. (15pp)

ASBI = ★ D16 60507 D/34 ★ DD -148-447
Microorganism disintegrator - has ultrasonic generator and coolant and suspension flows controlled by temp. probe

AS USSR BIOL INSTR 05.12.78-SU-693065

S03 P41 (27.05.81) B02c-15

21.11.79 as 217120 (39RH)

An ultrasonic microorganism disintegrator for use in biological, microbiological, molecular-biological and immunological studies, in research and industry, is based on an automatic control of the cooling circuit of the jacketed ultrasonic disintegrator. An upper and a lower threshold temperature comparators operate the cooling circuit until the temp. has dropped to the lower threshold.

The ultrasonic generator is turned off when the upper threshold of the temp. is reached. This ensures a high biochemical activity of the disintegrator and produces subcellular structures of high quality and quantity. (9pp)

DEAK ★ D16 60519 D/34 ★ DD -148-465
Microbial protein prodn. from methane - by continuous culture of new bacterial strain

AKAD WISSENSCHAFT DDR (PROT =) 06.07.79-DD-214164

H04 (27.05.81) C12n-01/26

06.07.79 as 214164 (367DJ)

Prodn. of microbial protein is carried out by continuously culturing the bacterial strain GB 25 (ZIMET B 502) in an aq. inorganic salt soln. in the presence of an O₂-contg. gas using CH₄ (or natural gas) as the sole C source. Culture conditions include a dilution rate of 0.25/hr or less, a temp. of 28-42 (pref. 38-40) deg.C, a pH of 4.7-6.8 (pref. 5.4-6.0), and atmospheric or elevated pressure. The culture is pref. supplied with a 1:3-6 CH₄/air mixt. at a pressure of 1-15 atm. The pH can be controlled with NH₄OH or a mixt. of NH₄OH and NaOH.

GB25 is a non-slime-forming strain which has a rapid growth rate and tolerate a wide range of ammonium N concns. The

process can be operated under non-sterile conditions with high protein productivity. (9pp)

GROT- ★ D16 60536 D/34 ★ DD -148-519
Plant growth stimulant bitumen emulsions - contg. biolipid extract obtd. e.g. from microbiological fermentation of hydrocarbons

VEB OTTO GROTEWOHL 04.01.80-DD-218301

C03 (27.05.81) C081-95

04.01.80 as 218301 (280AT)

New growth stimulant emulsions are produced by (a) emulsifying chopped bitumen with biolipid extract or (b) intimately mixing bitumen emulsions with biolipid extract or emulsions of biolipid extract and water in a ratio of 1:10 to 100:1, with or without the addn. of water.

The biolipid extract is pref. one resulting from the microbiological fermentation of hydrocarbons. It is advantageous to use the phosphatide or fatty acid fraction from the biolipid extract. The emulsion advantageously contains oxyethylated alkylphenols, fatty acids and/or fatty alcohols as emulsifiers and wetting agents. The emulsions advantageously contain further components such as herbicides, fertilisers, frost-protection agents, growth regulants, seeds, plant protection agents, minerals or stabilisers.

Bitumen emulsions for use as anti-deflation agents in soil reclamation, as agricultural soil-improving agents, and as agents for regulating soil moisture- and heat-retention. In addition, the biolipid-contg. bitumen emulsions have a direct growth-stimulant effect on plants. (11pp)

INMR D16 00267 B/01 = DS 2823-750
Bacterial esp. *Bordetella pertussis* endotoxin fractionation - to give fractions with non-specific immunological adjuvant activity

INST MERIEUX 31.05.77-FR-016473

B04 (13.08.81) *DE2823-750 A61k-37/22

31.05.78 as 823750 (047NJ)

Prepn. of hydrolysis prods. from *Bordetella pertussis* endotoxins comprises treatment of the opt. purified endotoxins with aq. CF₃COOH (pH 2-4) at 40-60 deg. for 50-150 hr.; the supernatant liquid is sepd. and the residue is freeze dried (prod. A); A is opt. extd. with PhMe/MeOH (1:1) leaving a residue B, and evapn. of the extract yield a prod. X; extn. of X with MeOH leaves a residue X2 and evapn. of the extract yields a prod. X1; also, B may be hydrolysed with aq. HCl (pH upto 1) at 100 deg. for 15-60 min to leave a residue which is centrifuged, washed and freeze-dried to give a prod. Z; Z is extd. with hexane (or 50% PhMe/MeOH) to leave a residue Z2, and evapn. of the extract gives a prod. Z1.

These prods. have immunological activity in intraperitoneal preps., esp. as adjuvants in antibacterial and antiviral injections. (DS) (7pp)

SAKA/ D16 17431 D/10 = EP -33-349
Pectin prodn. from vegetable tissue, e.g. citrus rind - by treating with release promoting yeast, used in medicines and foodstuffs

SAKAIT 10.08.79-JP-102389

B04 (12.08.81) *WP8100-417 C12p-19/04 C12r-01/64

08.08.80 as 901488 (1412AT) (J) No-Citns. E(FR)

Prepn. of pectin comprises treating a prepn. (e.g. an aq. soln.) of pectin-contg. vegetable tissue (e.g. pericarp of citrus fruit such as Citrus onshu, Citrus natsudaidai, lemon, grapefruit or orange) with a yeast able to cause release of pectin.

The yeast is *Endomyces geotrichum* (pref. IFO 0672) or *vernalis*; *Saccharomyces uvarum*, *bailii*, *delbrueckii* or *fermentati*; *Schizosaccharomyces octoporus*; *Pichia orientalis*, *polymorpha* or *farinosa*; *Hansenula saturnus* or *minuta*; *Debaryomyces hansenii* or *castellii*; *Hanseniaspora valbyensis* or *uvarum*; *Torulopsis sphaerica* or *pinus*; *Candida krusei*, *glabrosa* or *macedoniensis*; or *Kluyveromyces fragilis*, *lactis*, *marxianus* (pref. IFO 0277) or *drosophilae*.

Pectin is used in foodstuffs and medicines. (-pp)

KLEI/ D16 27354 C/16 #EP --33-397
Enzymatically active bio:catalyst prodn. - from polyelectrolyte
soln. contg. active material by pptn. as spheres

KLEIN J 16.08.78-DE-835875 (16.08.78-DE-835874)

A96 B04 (12.08.81) *DE2835-875 C12n-11/04

01.02.80 as 200089 (AT) (G) 2.Jnl.Ref E(AT BE CH FR GB IT LU NL SE)

Biocatalysts are produced from the following components: (a) a suspension or soln. of an enzymatically active substance (whole cells, cell fragments or enzymes) in an aq. soln. of a polyelectrolyte (I) with a concn. of 0.5-15 wt.%; (b) a soln. of a cpd. contg. multivalent ions of opposite charge to (I) in H₂O with a concn. of 0.5-35 wt.%; (c) a soln. of a different cpd. contg. multivalent ions of opposite charge to (I) in H₂O with a concn. of 0.5-35 wt.%.
 Process comprises (1) injecting mixt. (a) into soln. (b) to produce spheroidal particles with 0.5-5 mm size, and stirring the mixt. for 5-240 min; (2) filtering off the particles and washing with physiological saline; (3) drying the particles in an air stream at 80 deg.C or less for 48 hrs or less; (4) introducing the particles into soln. (b) or (c) to harden them; and (5) washing the hardened particles.

Process gives prods. with high mechanical strength (e.g. crush strength of 0.5-1 kg) and a high content of active material (e.g. 90 or less wt.%). (20pp)

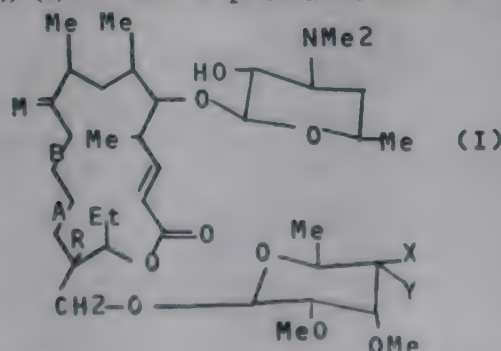
SCHE ★ D16 60702 D/34 ★EP --33-433
Macrolide antibiotics (NO 1.6.81)

SCHERING CORP 14.03.80-US-130330 (09.11.79-US-093080)

B03 C02 (12.08.81) A61k-31/70 C07h-15/22 C07h-17/08 C12p-19/62 C12r-01/29

10.11.80 as 810346 (+ 21.12.79-US-106184) (1248RH) (E) GB2020647 FR2422544 DE2918711 NL7903601 2.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Macrolide antibiotics of formula (I) and their acid-addn. salts and their esters in which the OH at posn. 9 and/or 21 and/or 21 and/or 4'' is esterified with 2-18C mono- or di-carboxylic acid(s) are new. R is H or OH; M is O or (H, OH); X is e.g. H, OH, mesyloxy, tosyloxy, guanidino, NHR6, NR6R7, NHR8, NH-COOR6, NH-C(NH)R6, NH(CH2)p-OH or NH(CH2)p-OR10, or NHCOR6 when Y is H; p is 2-18; X + Y may also be O, NNH2, NNHR11 or NR11; A is either a double bond or represents an oxirane ring with the C atoms at posns. 12 and 13; B is a double bond, or (when R is H, M is O, X is OH, Y is H, and A represents an oxirane ring) it may be a single bond, or (when A represents an oxirane ring, X is OH and Y is H) it may form CH2-CHQ1 or CH2-CHQ2 with the C atoms at posns. 10 and 11; Q1 is a N-contg. moiety (at the 11-posn.) and selected from e.g. NH2, NH-COR6, NHR6, NR6R7, an amino acid residue opt. esterified or 3- to 7- membered heterocyclic gp. contg. only N opt. with O, S or a second N; Q2 is a S-contg. moiety (at the 11-posn.) and selected from e.g. SR6, thioxanthyl, S-R10-R8-R9, a S-contg. amino acid residue opt. esterified; when A and B represent double bonds, Z may also be e.g. CH2-OH, CHO, CH2NH2, 4-ethyl-2,3- dioxopiperazinylcarbonylaminomethyl, CH2-O-glycosyl (except for CH2-O-mycinosyl or CH2-O-3''-desmethylmycinosyl), CH2-ureido or CH2-thioureido; R2 and R3 are 1-18C alkyl, 7-18C aralkyl or 3-7C heterocyclyl contg. one N, S or O, or one of R2 and R3 is H and the other is (CH2)m-OR4 or a gp. of formula (II) m is 2-10; n is 2-6; R4 is 1-18C alkyl, 7-18C aralkyl or 3-7C heterocyclyl contg. one N, S or O; R5 is H, R2 or -(CH2)2-N(CH2)7; R6 and R7 are 1-18C alkyl or 7-18C aralkyl; R8 is aryl; R9 3- to 7-membered heterocyclyl contg. S, N or O as heteroatom(s); R10 is 1-18C alkyl; and R11 is 1-18C alkyl, 7-18C aralkyl or 3- to 7-membered heterocyclyl contg. S, N or O as heteroatom(s)). (I) are broad-spectrum antibacterials.



MERE ★ D16 60703 D/34 ★EP --33-437
Immunological determination of antibodies, antigens and
hapten(s) - by immobilising one component on a water insol.
carrier and then incubating with a component that combines with
the first component

MERCK PATENT GMBH 02.02.80-DE-003836

A96 B04 S03 (12.08.81) G01n-33/54

10.01.81 as 190141 (140AT) (G) DE2951678 DE3003301 DE2852373

The determination of a component in a gp. consisting of specifically combined receptors (I) and substances (II) which can be specifically fixed by these receptors comprises incubating one of these components after immobilisation on a water insol. carrier with the other component. After conventional washing the mixt. is then incubated with an enzyme fixed on saccharide and the enzyme activity determined.

The enzyme fixed to saccharide is pref. one with lectin properties or is lectin with enzymatic activity, esp. galactoseoxidase, galactosidase and/or mannosidase. The immobilised component (I) is pref. a modified component in which the saccharide gp. is altered so that it cannot fix any more saccharide fixing enzymes and/or lectin. The two components (I) and (II) are either simultaneously or successively incubated with the coupling prod. of component (II) and a saccharide contg. molecule. The water-insoluble carrier is pref. a plastics container, esp. a polystyrene or polypropylene test tube.

The process can be used in the immunological determination of antibodies antigens and haptens in soln., using the effect of enzyme activity. The process is more exact and rapid than previous enzymeimmunoassays. The enzyme need not be modified. (30pp)

ELVI ★ D16 60708 D/34 ★EP --33-462
Improved Trinders reagent for measuring hydrogen peroxide -
contg. amino:pyrine to eliminate interference from bilirubin

ELVISPA 04.02.80-IT-019672

B04 (12.08.81) C12q-01/26

17.01.81 as 100349 (1251KB) (E) NL7712266 US--29498 DE2738135 4.Jnl.Ref E(AT BE CH FR GB LI NL SE)

Trinder's reagent for clinical analysis of hydrogen peroxide formed by enzymatic oxidn. of metabolic substrates is improved by adding aminopyrine (I) at 1-30, pref. about 15, g per l. The pref. reagent comprises (per l) peroxidase 2000 units; Na 2,4-dichlorophenol sulphonate 1g; KH₂PO₄ 18g; Na₂B₄O₇ decahydrate 13.9g; 4-aminophenazone 260mg; (I) 15g; uricase from Aspergillus flavus 100 units. Also new is use of the improved reagent at serum-chromogen reagent ratio 1:40, with monitoring of the reaction prod. at 500-520nm.

The reagents are used in assay of glucose, cholesterol, uric acid, triglycerides and choline. The addn. of (I) eliminates interference from bilirubin, esp. in assay of uric acid in serum. (12pp)

BOEF ★ D16 60733 D/34 ★EP --33-540
Glycerol enzymatic determination - using glycerol oxidase from
aspergillus species DSM1729

BOEHRINGER MANNHEIM GMBH 05.02.80-DE-004129

E17 J04 (12.08.81) C12n-09/04 C12q-01/26

02.02.81 as 100738 (280NS) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

In the determ. of glycerol by oxidn. in the presence of glyceroloxidase and measurement of the oxygen consumption or H₂O₂ formation, the glycerol oxidase used is from Aspergillus species DSM 1729. Aspergillus DSM 1729 glycerol oxidase is also claimed as a new reagent for the determ. of glycerol. Also claimed is a prodn. of glycerol oxidase from aspergillus DSM 1729, the microorganism is cultivated in a suitable nutrient medium and the glycerol oxidase is recovered from the cell mass or culture medium and opt. purified. New glycerol oxidase from Aspergillus species DSM1729 has a molecular weight of ca 9000, and a specific activity of 2000-8000 U/mg, is inhibited by Sh reagents, and is not inhibited by copper sulphate or lead acetate.

Aspergillus DSM 1729 glycerol oxidase has higher specific activity than known glycerol oxidases, and Aspergillus DSM 1729 produces 10 or more times the amt. of glycerol oxidase than other microorganisms produce. (19pp)

ORTH ★ D16 60747 D/34 ★EP --33-578
Mono:clonal antibody reactive with peripheral T cells and
thymocytes - prepd. from spleen-myeloma hybrid, useful in
diagnosis and treatment of graft rejection etc.

ORTHO PHARM CORP 08.01.80-US-110510

B04 S03 (S05) (12.08.81) A61k-39/39 C12n-05 C12n-15 C12p-01 C12r-01/01 G01n-33/54

07.01.81 as 300047 (1251RH) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

A new monoclonal IgG-class antibody (OKT 11) is prepd. from a hybridoma made by fusing mouse myeloma cells with spleen cells from a mouse previously inoculated with leukaemia cells from a human with T-ALL (T-cell acute lymphoblastic leukaemia).

OKT11 has the characteristics: (a) reacts with practically all normal human peripheral T-cells and with approx. 95% of normal human thymocytes, but not with normal human B or Null cells; (b) has particular patterns of reactivity to normal human thymocytes, E+ and E- cells, and T-lymphocytes.

than normal in myasthenia gravis and multiple sclerosis; higher than normal in acute graft-host reactions, hyper-IgE, acute infectious mononucleosis and prim. biliary cirrhosis; and completely absent in all stages of Hodgkin's disease and psoriasis. Also claimed are the hybridoma itself (ATCC CRL 8027) and methods for detection and treatment using OKT11.

OKT11 is monospecific contg. no other anti-human immune globulin, and can be prepd. without the need for host animals. It is used to diagnose those states associated with an excess or deficiency of OKT11+ cells, and to treat an excess of such cells, e.g. to reduce or eliminate graft rejection with better specificity than anti-thymocyte globulin. (34pp)

ORTH ★ D16 60748 D/34 ★ EP --33-579
Mono:clonal antibody reactive with monocytes and granulocytes - prepd. from spleen-myeloma hybridomas, useful for diagnosis and treatment

ORTHO PHARM CORP 08.01.80-US-110509

B04 S03 (S05) (12.08.81) A61k-39/39 C12n-05 C12n-15 C12p-01 C12r-01/91 G01n-33/54

07.01.81 as 300048 (1251HM) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

New monochloral IgG-class antibody (OKM 1) is prepd. from a hybridoma made by fusing mouse myeloma cells with spleen cells from a mouse previously immunised with human mononuclear cells. It has the properties: (a) reacts with an antigen found on normal human monocytes and granulocytes, but not with normal human peripheral T cells, B cells, Null cells, thymocytes, lymphoblastoid cell lines, or tumour cells of T or B cell lineage.

(b) has characteristic patterns of reactivity to normal human monocytes; normal human E+ and E- peripheral blood cells; normal human Ig-, E-, and non-adherent null cells; and has a characteristic pattern of lytic capacity (all detailed in the specification).

(c) reacts with leukaemia cells from patients with acute myelomonocytic leukaemia (AMML).

(d) defines a monocyte population necessary for a proliferative response to soluble antigens and a population (OKM-1+) which is lower than normal in prim. biliary cirrhosis, acute infectious mononucleosis and graft-host reactions; higher than normal in multiple sclerosis, myasthenia gravis and abnormal Hodgkin's disease, and normal in hyper IgE, early Hodgkin's disease and psoriasis. Also new is the hybridoma ATCC CRL 8026 itself.

OKM-1 is monospecific, contg. no other anti-human immune globulin, and can be prepd. without the need for host animals. It is used to diagnose conditions associated with a deficiency or excess of OKM1+ cells, and also for treating an excess of OKM1+ cells, e.g. AMML. (44pp)

NURM/ ★ D16 60751 D/34 ★ EP --33-584
Bacterial prepn. for prophylaxis of poultry intestinal disturbance - esp. salmonella infections, prepd. by anaerobic cultivation of normal alimentary tract bacteria having high adhesion to epithelial cells

NURMIE V 11.01.80-FI-000077

B04 C03 (12.08.81) A61k-35/74 C12n-01/20

08.01.81 as 300077 (949BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Prodn of a bacterial prepn for the prophylaxis of poultry intestinal disturbances comprises anaerobically cultivating, opt together, strains of normal alimentary tract bacterial spp having an adhesion efficiency onto poultry alimentary tract epithelial cells of at least 10 bacteria per cell, followed by isolating the cultivated bacteria. Pref cultivation is in presence of the epithelial cells.

Pref 4-8 different bacterial strains are cultivated, esp together. Pref bacterial strains are Lactobacilli or both Lactobacillus and Clostridium spp., partic one or more Lactobacillus fermentum, L.lactis, L.acidophilus or Clostridium sp. strains.

Esp useful for inhibition of salmonella infections in poultry by normalisation of the intestinal flora in young chicks (see eg Nurim and Rantala, Nature, 241, 210-211, 1973). Process is much less expensive than bacteriological monitoring of feedstuffs, avoids the undesirable use of antibiotics and chemotherapeutics and the use of pure strains of bacteria avoids infection with pathogenic viruses, bacteria or parasites, c.f use of cultures obtd from the intestines of mature fowl. An improvement in health and faster growth are also observed. (17pp)

SSSE ★ D16 60771 D/34 ★ EP --33-624
Anti-haemolytic substance M-9337 - produced by culturing Streptomyces strain

SS PHARMACEUTICAL KK 31.01.80-JP-010481

B04 (12.08.81) C12n-01/20 C12p-01/06 C12r-01/46

28.01.81 as 300337 (387KB) (E) No-Citns. E(CH DE FR GB IT LI)

A new antihaemolytic substance M-9337 (I) is produced by

culturing a (I)-producing strain of the genus Streptomyces esp. the new strain S. antihaemolyticus FERM-P 4651. (I) is a neutral substance (pH 6-7 at 1 mg/ml) having a m.pt. of 170-175 deg.C (decomp.). Elementary analysis shows 52-53% C, 7-8% H, 39-41% N. It is soluble in DMSO and CHCl₃/MeOH, slightly soluble in water and MeOH, and insoluble in EtOAc and CHCl₃. It gives positive colour reactions with anthrone, iodine, NH₄ molybdate/HClO₄ and anisaldehyde; negative with ninhydrin and Dragendorff reagent. It is further characterised by UV, IR and TLC data.

(I) can be used as an antitoxin for neutralising the toxins of streptococci, staphylococci, tetanus etc. (22pp)

INRG ★ D16 60791 D/34 ★ EP --33-686
Recovering peptide and phospho-peptide from casein materials - by enzymatic hydrolysis, ultrafiltration, acidification, then repeating ultrafiltration

INRA INST NAT RECH 01.02.80-FR-002280

B04 (12.08.81) A23c-09/12 A23j-03/02 A61k-37/18

27.01.81 as 400116 (1251KB) (F) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Method for treating casein-based material contg. bivalent (e.g Ca and/or Mg) phosphocaseinates comprises first enzymatic hydrolysis with at least one protease acting like human digestive protease. The hydrolysate is subjected to ultrafiltration using membranes which retain phosphopeptides (I) but allows through peptides which are collected in the ultrafiltrate. The retentate is subjected to deaggregation of (I), then ultrafiltered using membranes which do not retain (I), which are thus sepd. from the enzyme.

Also new are salts of (I) and macro- or micro-elements (esp. Ca, Mg, Fe, Zn, Cu, Cr, Ni, Co, Mn, and Se) and organophosphorated salts of (I) and mineral elements having below 4% total aromatic amino acid content; ratio (Ca + Mg + P):(total nitrogen x 6.38 over 0.2; serine content 8-20%; free amino acid content below 30%.

(I) salts are useful in human nutrition, including therapeutic feeding, e.g. in cases of pancreatic or renal insufficiency, metabolic disorders etc., and as a source of trace elements. They can also be used to treat phosphorus deficiency in human and animals e.g. in calcification of bone fractures, treating osteoporosis or treating rickets. (46pp)

ANVR ★ D16 60796 D/34 ★ EP --33-702
2-Nitro substd. naphtho:furan derivs. - useful for regulating cell growth

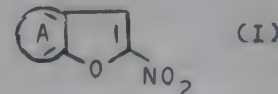
AGENCE NAT VALORISATION 04.02.80-FR-002354

(12.08.81) C07c-47/57 C07d-307/92 C12n-01/38 C12n-15

03.02.81 as 400156 (1251HM) (F) E(AT BE CH DE FR GB IT LI LU NL SE)

Naphthafuran derivs. of formula (I) are new. In (I) A is an R-substd. naphthalene ring fused at 1,2-; 2,3- or 2-, positions; R, at any free position of the naphthalene, is halo (esp. chloro or bromo) or methoxy. (I) are made by condensing bromonitromethane with an o-hydroxy substd. naphthaldehyde.

(I) are useful as regulators of cell growth, esp. they have mutagenic activity 1000 times greater than the reference cpd. ICR 191. They are useful as laboratory reagents, e.g. as reference mutagens. (9pp)



BRAS- D16 44105 D/25 = EP --33-709
Bottle filler to sample beer from fermenting vessel - uses counter pressure of inert gas to obtain true sample

BRASSERIES KRONENBO 05.02.80-FR-002743

S03 (12.08.81) *BE-887-378 + G01n-01/10 G01n-33/14

05.02.81 as 440006 (448DH) (F) FR2410824 FR2379816 FR2187115 E(AT DE GB NL SE)

A self-contained, portable, counter pressure bottle filler for taking a full bottle sample from a pressurised vessel contg. a gasified liq., partic. beer from a fermenting vessel or storage keg. The filler is of the type which has a sloping support frame standing on tripod legs and fitted with a carrying handle

The filler comprises a valve block via which an inlet to the bottle neck can be supplied with either gas under pressure or liq to be sampled. The neck has an outlet which is simultaneously connected either to waste via a regulating valve or to atmosphere via a pressure bleed-off valve. A three-way valve can divert gas to atmos. or to a closure diaphragm in a normally open regulating valve. The frame has a support for the sample bottle on its front side and support on its back side for a bottle of inert gas.

A sample can now be taken from a beer fermenting vessel, without allowing the sample to foam and thus lose CO₂, also without the sample coming into contact with air and losing flavour by oxidation and without affecting the temp. or pressure

of the prod. from which the sample is taken. (14pp)

LEIB-★ D16 60806 D/34 ★EP--38-724
Anaerobic fermentation tank for digestible substances - using fermentation gas to discharge floating layer periodically (AT 15.2.81)

LEIBETSEDER CO GMBH 30.01.80-AT-000476

E17 (12.08.81) C12m-01 C12p-05/02

28.01.81 as 890017 (39RH) (G) No-Citns. E(CH DE FR GB IT LI)
A tank for the anaerobic fermentation of digestible substances consists of a digestion chamber in which a methane collection chamber is sepd. A siphon connects it to the inlet of the digestible fluid and a flap can be used to transfer the gas to a gas chamber below an inflatable diaphragm. A communicating duct causes the floating layer in the digestion chamber to be discharged over an overflow when the gas depresses the level in the collection chamber.

This is a simple system which requires almost no maintenance. Fermentation operations can be carried on for long periods. (16pp)

ANVR ★ D16 60836 D/34 ★FR 2472-607
Pyridine type enzyme co-factors regeneration system - comprises immobilised bacteria etc., and requires only oxygen
AGENCE NAT VALORISATION 28.12.79-FR-032011

B03 (03.07.81) C12n-09

28.12.79 as 932011 (251NS)

System consists of (a) an enzyme system comprising stoichiometrically equiv. amts. of cofactor and substrate and also (b) at least one immobilised system which regenerates the cofactor by using only oxygen. Pref. system (b) does not require a second substrate. System (b) esp. consists of intact bacteria, mitochondria or photosynthetic organites, and the components are immobilised on gelatin or serum albumin with glutaraldehyde. Pref. the cofactors regenerated are NAD and/or NADP.

The system is used e.g. in enzymatic analysis or in synthetic process using cofactors, so as to reduce the total amt. of expensive cofactor needed. Suitable substrates are antibiotics, hormones, steroids, amino-acid derivs., cardioactive peptides, pigments, feed additives and aromatising agents. (9pp)

AJIN ★ D16 60837 D/34 ★FR 2472-610
Fermentative L-glutamic acid prodn. - by cultivating Brevibacterium or Corynebacterium mutants which require acetic acid

AJINOMOTO KK 10.07.80-JP-094395 (27.12.79-JP-170927)

B05 (03.07.81) C12n-15 C12p-13/14

24.12.70 as 027549 (1251DJ)

Prodn. of L-glutamic acid (I) comprises aerobic cultivation of an appropriate Brevibacterium or Corynebacterium mutant which requires acetic acid for growth, then recovering (I) accumulated in the culture liq. Pref. an aq. medium is used which contains as C sources a sugar and a alcohol or aliphatic acid.

Pref. C sources are (a) glucose, fructose, sucrose, starch hydrolysates, or cane sugar or sugar beet molasses, and (b) ethanol, propanol, or acetic, propionic, palmitic or stearic acids. The (I)-producing mutant, esp. those which are deficient in isocitrate lyase, are also new.

These mutants give higher yields of (I) than known strains. (15pp)

SHAT/ D16 53798 A/30 = GB 1595-803
Microbiological decomposition of sludge - by composting reactor and using exothermic heat for methane production

SHATTOCK G F 07.01.77-GB-000641

H08 P11 (19.08.81) *DE2800-666 + C02f-03/30

04.01.78 as ----- (936WB)

Slurry susceptible to microbiological degradation is treated by (a) sepg. into a 1st, solids concn., fraction (I) and a 2nd, solids dilute, fraction (II); (b) carrying out on (I) an exothermic microbiological reaction; (c) carrying out on (II) a 2nd microbiological reaction; and (d) utilising heat from the exothermic reaction to promote the 2nd reaction.

Pref. the exothermic reaction is an aerobic composting reaction. Process is partic. suitable for effluent treatment. (10pp)

SCHO-★ D16 60875 D/34 ★GB 1596-154
Microbiological test device - having spaced regions impregnated with testing material separated by regions which are not impregnated

SCI HOSP SUPPLIES 10.09.76-GB-037532

B04 (19.08.81) C12q-01/04

05.12.77 as ----- (525KB)

A device for use in microbiological testing comprises spaced portions impregnated with testing material and sepd. by regions

arc of a circle. A preferred material for the device is filter paper, the non-impregnable regions being treated by, for example, paraffin wax.

The device is used in testing the resistance of bacteria to antibiotic agents. The bacteria is located upon an agar medium in a dish in a series of concentric circles and the testing device is so shaped that when it is located upon the dish each impregnable region, which has been impregnated with a different antibiotic, straddles the function between different bacteria, enabling the standard test to be carried out. The impregnated regions are located automatically at the bacterial junctions to ensure accurate reproducible results. (5pp)

ENGH ★ D16 60922 D/34 ★GB 2068-927
Recovery of metals from low concn. aq. solns. - by pptn. with live mould fungi

ENGELHARD MINERALS CORP 12.02.80-US-120798

M25 (19.08.81) C02f-01/62

27.01.81 as 002417 (478RH)

Metals are removed from aq. soln. by treatment with one or more live mold fungi- resulting metal-loaded fungus is then sepd.

Recoverable metals include Pt, Rh, Pd, Ru, Ir, Au, Zn, Al, Fe, Cu, Ni, Co, Mn, Cr, Re, Ag, B and Sn. Suitable fungi include Cladosporium, Penicillium, Trichoderma and Aureobasidium spp., and a black chlamydosporial mould. Treatment is pref. in the presence of a solid substrate (e.g. insol. carbonate) pref. in the presence of a C source (esp. HCO₂H or citric acid), at 5-50 pref. 20-40 deg. C/pH 1-4.

Simple, relatively inexpensive method is effective for recovering a range of metals from low concns. in industrial waste waters, sea-water, etc. The process is esp. useful for the recovery of metals from acidic solns. (9pp)

ENGH ★ D16 60923 D/34 ★GB 2068-928
Recovery of metals from low concn. aq. solns. - by pptn. with killed mould fungi

ENGELHARD MINERALS CORP 12.02.80-US-120800

M25 (19.08.81) C02f-01/62

27.01.81 as 002418 (478RH)

Metals are removed from aq. soln. by treatment with a killed mould fungus so that the soluble form (I) of the metal is converted into an insol. form (II).

Recoverable metals include Pt, Rh, Pd, Ru, Ir, Au, Zn, Al, Fe, Cu, Ni, Co, Mn, Cr, Re, Ag, B and Sn. Suitable fungi include Cladosporium, Penicillium, Trichoderma and Aureobasidium spp., and a black chlamydosporial mould, and these are killed by heating an aq. suspension to 85-150 deg. 0-150 deg./pH 2-3.

Simple, relatively inexpensive method is effective for recovering a range of metals from low concns. in industrial waste waters, sea-water etc. The process is esp. useful for the recovery of metals from acidic solns. (6pp)

UPJO ★ D16 60946 D/34 ★GB 2068-969
Expression of gene coding by fusing gene - to transcriptional initiation region in vehicle and inserting vehicle in eucaryotic host

UPJOHN CO 05.02.80-US-119037

(19.08.81) C12n-15

08.01.81 as 000462 (985AT)

Expression of a gene coding for an animal or plant protein in a vehicle comprises fusing the gene in the correct orientation relative to a transcriptional initiation region present in the vehicle, and inserting the vehicle into an eukaryotic host.

Prepn. of chicken ovalbumin comprises culturing *S. cerevisiae* SHY3 (pUC 1014), CBS 8025 in aq. nutrient medium. Yeast culture SHY3 (pUC 1014) CBS 8025 and plasmid pUC 1014 are also new.

Proteins which can be produced using a gene inserted by the above process include chicken ovalbumin structural gene, human serum albumin, human interferons, human antibodies, human insulin, blood clotting factors, brain peptides, enzymes, viral antigens and plant proteins. (6pp)

CORP ★ D16 60948 D/34 ★GB 2068-974
Prepn. of immobilised glucose isomerase - by addn. of nonionic surfactant to microbial culture, autolysis, and removal of insoluble polysaccharides

CPC INTERNATIONAL INC 05.02.80-JP-012111

A97 (D17) (19.08.81) C12n-09/92 C12n-11 C12p-19/24

30.01.81 as 102956 (478AT)

Immobilised glucose isomerase (I) is prepd. as follows (a) a non-ionic surfactant (II) is added to material conventionally produced by culturing a (I)-producing organism (or moist cells or aq. suspension); (b) treated material is autolysed in order to solubilise (I) without solubilising the polysaccharides present; (c) the resulting (I) soln. is treated with a carrier capable of adsorbing (I) to afford the immobilised (I).

Removal of polysaccharides allows large amts. of (I) to be

efficiency esp. for the continuous isomerisation of glucose to fructose. (6pp)

FLET-★ D16 60963 D/34 ★GB 2069-000
Organic compound production by fermentation of carbohydrate - in which a proportion of the resultant product lean stream is recycled to the fermenter

FLETCHER & STEWART 22.01.81-GB-002000 (02.02.80-GB-003589)

E17 (19.08.81) C12f-01/02 C12p-07/06

22.01.81 as 002000 (525DJ)

A method of forming an organic compound by fermenting a charge of carbohydrate containing material and separating the resultant aq. solution into product rich and product lean streams includes the steps of recirculating a proportion of the product lean stream back to the fermenter and separating further product from the remainder of the product lean stream.

30-90% (preferably 65-75%) by volume of the product lean stream may be recycled and the stream has a product concentration of 0.1% to 1.0%.

Final waste having a high solids content (up to 60%) is formed and can easily be disposed of or used, e.g. as animal feedstuff. (5pp)

COLB ★ D16 60987 D/34 ★GB 2069-133
Antigen or antibody labelled liposome contg. encapsulated enzyme - for rapid determ. of hormones, drugs, toxins and pesticides, esp. in food

COLLABORATIVE RES INC 12.01.81-US-222815 (04.02.80-US-117864)

B04 S03 (19.08.81) G01n-33/54

03.02.81 as 003282 (916HM)

Diagnostic agent (I) is an immunoreactive liposome labelled with an antigen or its cognate antibody, sequestering an enzyme having a signal to noise ratio of no less than 5.

(I) is used together with a substrate for the enzyme, a test material and complement. The enzyme activity is detected by a colour change. The liposome may be prepared so described by Szoka and Papaliadjopoulos in Proc. Nat. Acad. Sci. 75, 4194 4198/1978. Suitable enzymes include oxidoreductases, hydrolyses and lyases. Substrates for detecting the enzyme include p-nitrophenyl phosphate or 4-methylumbelliferyl phosphate or alkaline phosphatase 4-aminosalicylic acid or o-diamisidine and hydrogen peroxide for peroxidases and o- or p-nitrophenylglycoside for glycosidase.

Like radio-immunoassay the use of this reagent is rapid, but without the hazards of radioactive substances. It is also more adaptable than the enzyme labelled antigen of prior art. (14pp)

CHUS ★ D16 61107 D/34 ★J5 6081-511
Combating fall web-worm - by applying mixt. of cytoplasm polyhedral disease virus and insecticide produced by insect pathogenic bacterium, esp. *Bacillus* sp.

CHUGAI PHARMACEUTICAL KK 00.00.80-JP-023462 (13.03.71-JP-013487)

C03 (03.07.81) A01n-63

13.03.71 as 023462/80 Div.ex. 013487/71 (108DJ)

Method of combating fall webworm comprises applying a mixt. of fall webworm cytoplasm type polyhedral disease virus and the insecticidal substance produced by insect pathogenic bacterium (*Bacillus* sp.).

The sepn. of the insecticidal substance from the pathogenic bacteria cells is conducted by breaking the cells with freeze-drying, high-speed centrifugation. The insecticidal substance can be obtd. by extracting the cells with water, acetone or other organic solvent. The active mixt. can be used in the form of powder, wettable powder, emulsion and organic solvent soln.

The mixt. is safe to humans and animals and does not influence other creatures. The virus intrudes into the insect body, propagate in it and as a result breaks the tissue, making easy the intrusion of the insecticidal substance into the somatic cell. Further, the insecticidal substance accelerate the propagation of the virus. Therefore, the mixt. shows the synergistic effect. (3pp)

AGEN ★ D16 61220 D/34 ★J5 6082-093
Fixation of enzyme by irradiation - using azide-contg. polymer which reacts with triple or double bond of amino acid in enzyme

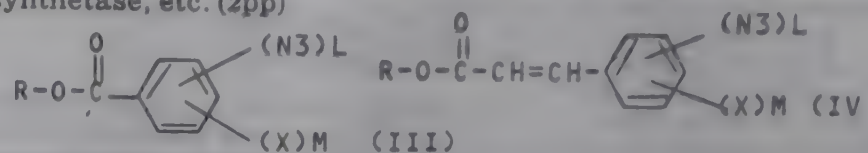
AGENCY OF IND SCI TECH 00.00.80-JP-053364 (09.09.76-JP-108154)

A97 B04 (04.07.81) C12n-11/08

09.09.76 as 053364/80 Div.ex. 108154/76 (42RH)

Irradiation of light to a moulding of azide-contg. polymer (I) suspending enzyme (II) fixes (II) in it. The present method fixes an enzyme by the reaction between azide-group of (I), and (triple bond)CH or :CH₂ of amino acid in (II), caused by light-irradiation. Since (II) is strongly fixed, the amt. of (II) eluted during use is small. (II) can be held at high level for a long time.

Method is effected as follows; (i) (I) and (II) are dissolved in solvent, (ii) a membrane or granule is produced from the solution the solvent being removed, and (iii) a light is irradiated onto the moulding. Thus, the light-irradiation causes the cross-linkage between (I) and (II). Example of (I) are of formula (III) and (IV) is a residue of water-soluble polymer such as PVA, cellulose, agar, and hard protein (gelatin, collagen, fibroin, etc.). X is halogen, alkyl, alkoxy, hydroxy or their salt, L is 1-4, and M is 0. Examples of (II) are oxidn.-redn. enzyme, hydrolyase, isomerase, synthetase, etc. (2pp)



TOXN ★ D16 61221 D/34 ★J5 6082-0
Antibiotic A-9594 - obtd. by culturing specified *Streptomyces* microorganism

TOYO JOZO KK 11.12.79-JP-159752

B04 (04.07.81) A61k-35/74 C07g-11 C12p-01

11.12.79 as 159752 (140KB)

Antibiotic A-9594 has the following properties (1) appearance: white powder; (2) basic water-soluble substance; (3) elemental analysis: C:45.22%; H:7.10%; N:8.05% (4) vol :527(mass spectrum) (5)mol. formula: C₂₀H₃₇H₃O₁₃; (6)m.pt:195-202 deg C(decomp) (7)specific rotatory power (8) specific IR spectrum; (g)colour reaction: positive in ninhydrin reaction, Molisch reaction, anthrone reaction, potassium permanganate decolouration reaction; negative in ferric chloride reaction, Fehling reaction, Sakaguchi's reaction; (10)Solubility: easily soluble in water, slightly soluble in methanol, ethanol, acetone; insol in chloroform, benzene, ethyl acetate, petroleum ether, carbon tetrachloride, n-hexane.

Prepn comprises cultivating an A-9594-producing strain belonging to the genus *Streptomyces*, partic *St. hygroscopicus* A9594, in a medium and recovering A-9594 from the culture. (7pp)

BIOR-★ D16 61222 D/34 ★J5 6082-0
Fermentative prodn. of fatty acid - where microorganisms are removed from broth, then broth treated with protease and fatty acid collected

BIORESEARCH CEN KK 07.12.79-JP-158876

E17 (04.07.81) C12p-07/40

07.12.79 as 158876 (42RP)

Fatty acid (I) is produced by fermentation. Microorganisms are removed from the broth, the broth treated with a protease (II) and then (I) collected.

(I) is produced by fermentation in a culture medium containing straight hydrocarbon as carbon source. Examples of (I) are monocarboxylic, dicarboxylic, oxy, dihydroxy, oxydicarboxylic acid, etc. All type protease such as endoprotease, oxoprotease, alkali protease, neutral protease and acid protease are useful as (II), and their examples are Biopraxe, Biotamylase, Biopron, Nagase P, Denapsan, etc. The amt of (II) used is 0.01-1.0g per 1 litre of broth. After the treatment of a broth with (II), (I) is allowed to crystallise with heating of the broth after adjustment of pH to acidic range.

When (I) is collected from a broth obtd after incubation of a (I)-producing microorganism, by deposition with addn of acid or salt, (I) collected is contaminated with proteins in the broth. The present method makes it possible to collect highly purified (I). (5pp)

AJIN ★ D16 61224 D/34 ★J5 6082-098
Purine nucleoside-5'-mono:phosphate prodn. - by reaction of acetyl:phosphoric acid with purine nucleoside aided by microorganism of genus e.g. *Pseudomonas* or *Enterobacter*

AJINOMOTO KK 06.12.79-JP-158364

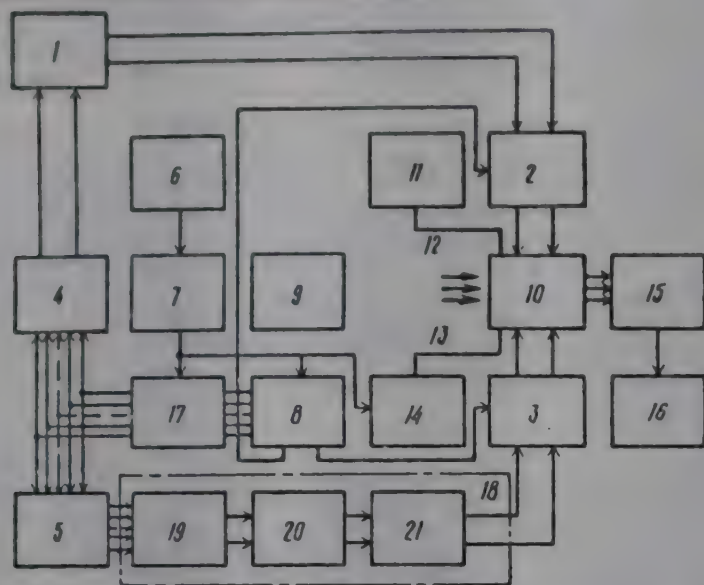
B02 (04.07.81) C12p-19/40

06.12.79 as 158364 (-NS)

Prepn. comprises reacting purine nucleoside with acetylphosphoric acid by the action of a microorganism (I) belonging to the genus *Pseudomonas*, *Enterobacter*, *Aeromonas*, *Erwinia*, *Proteus*, *Escherichia*, *Acinetobacter*, *Flavobacterium* or *Serratia*. (I) is capable of producing purine nucleoside-5'-mono-phosphate from purine nucleoside and acetylphosphoric acid. (I) is e.g. *Erwinia herbicola* ATCC 14537, *Pseudomonas maltophilia* ATCC 17806, *Proteus mirabilis* ATCC 15290, *Escherichia coli* ATCC 11246, *Acinetobacter calcoaceticum* ATCC 9036, *Serratia marcescens* ATCC 14226, *Aeromonas punctata* ATCC 11163, *Enterobacter aerogenes* ATCC 13048 or *Flavobacterium fuscum* ATCC 14233.

The reaction is carried out by contacting purine nucleoside and acetylphosphoric acid with a mycelium of the microorganism, a

recorded over a wider frequency band. Oscillator parameters are independent of varying electric parameters of the cell suspension. Bul. 45/7.12.80 (4pp Dwg.No.1)



VITE = ★ D16 81663 D/34 ★ SU-784-877
Immuno-therapy of purulent septic disease evaluation - by reaction of white blood cells sensitised with antibacterial serum and immunoglobulin to staphylococcal antigen

VITEB MED INST 18.01.79-SU-714833

B04 (07.12.80) A61k-37/04

18.01.79 as 714833 (114VE)

Evaluation of purulent-septic disease immunotherapy efficiency includes treating white blood cell suspension with anti-staphylococcal plasma and immunoglobulin and determin. number of leucocytes carrying receptor for immunoglobulin Fc-fragment and the ability to sensitisation with antistaphylococcal antigen.

The efficiency of immunotherapy is assessed by obtaining a positive sensitisation result in the presence of 8+ % lymphocytes and 10+ % granulocytes having Fc-receptors to give a cell-count of more than 100/micro.l. of blood.

The results can be verified by clinical observation during treatment. (3pp)

MOEP = ★ D16 81664 D/34 ★ SU-784-878
Prepn. of protective somatic antigen for diphtheria bacteria - includes sepn. of specified high mol. fraction from microbial biomass extract to increase immunisation and lower toxicity

MOSCEPIDEMIOL MICR 06.06.79-SU-767705

B04 (07.12.80) A61k-39/05

06.06.79 as 767705 (114VE)

Prepn. of protective somatic antigen for diphtheria corinebacteria by cultivating microorganisms on nutrient media, drying the biomass, extg. and fractionating the required prod. increases immunising effect and lowers toxicity (of the antigen) by sepg. out the fraction of mol. wt. above 300,000 Dalton.

Typically, immunisation of porpoise using antigen of mol. wt. (Dalton) 300,000+, 100,000-300,000 and 50,000-100,000 respectively gave fatality results 5, 40 and 100%. Bul. 45/7.12.80 (2pp)

KVET = ★ D16 81665 D/34 ★ SU-784-879
Prod. of red blood cell suspension for brucellosis diagnosis - includes ultrasonic fragmentation of brucella cells in distilled water sepn. of antigen-fraction sensitisation of erythrocytes

KAZA VET RES INST 26.12.78-SU-702203

B04 (07.12.80) A61k-39/10

26.12.78 as 702203 (114VE)

Diagnostic compn. comprising suspension of brucella antigen sensitised red blood cells in aq. glycerol used in brucellosis diagnosis is obtd. by ultrasonically disintegrating brucella cells before sepg. antigen and sensitising with it formalinised erythrocytes gives high activity and specificity by fragmenting cells in water at pH 8-9 and sensitising erythrocytes at 70-72 deg.C. for 5-10 mins. followed by tanning, washing and suspending cell in glycerol contg. aq. formaldehyde.

Typically, brucella strain 19 (cultivated on liver glucose-glycerine agar) is diluted with sterile physiological soln. (to give microbial count 100 billion cells/ml) before treating cells for 10-16 mins at ultrasonic wavelength and centrifuging for 30 mins. at 5000-6000 rpm. The clarified antigen-contg. soln. is used to sensitise formalinised erythrocyte. 0.5% formalin soln. is used as preservative. Bul. 45/7.12.80 (3pp)

SAFR/ ★ D16 81736 D/34 ★ SU-785-210
Purificn. of wine and brandy prodn. aq. effluent - includes addn. of sodium chloride with potassium nitrate and electrolytic coagulation using aluminium electrodes

SAFRONOV II 03.07.78-SU-636495

E34 (07.12.80) C02f-01/46

03.07.68 as 636495 (835VE)

Effluent from viniculture industry is purified electrochemically by adding NaCl followed by electro-coagulation. Better purification is secured by adding additionally 75-250 mg/l KNO₃. Coagulation proceeds under the following conditions: current density 15-20 mA/sq.cm.; vol. conc. of current 2-8 A/l; voltage 50-100 V.

Vinasse from a wine-brandy production unit, at pH 5.5, with suspended matter 18-28 g/l, tannides 1500-2500 mg/l was treated with 50 mg/l NaCl and 100 mg/l KNO₃. Electrolysis under the above conditions (Al electrodes) was conducted for 12 min. The degree of effluent purificn. was 98% against the usual 45-48%. Bul. 45/7.12.80 (2pp)

MOSU ★ D16 81844 D/34 ★ SU-785-318
Bacterial luciferase prepn. - includes fragmentation of Photobacterium fischeri cells in aq. detergent fractional pptn. and chromatographic purificn.

MOSCOW LOMONOSOV UNIV 26.01.79-SU-719553

B04 (08.12.80) C07g-07/02

26.01.79 as 719553 (114VE)

Bacterial luciferase enzyme is used in medicine, microbiology and in biochemical and analytical chemistry for determin. of flavine, pyridine nucleotide, nicotinamide adenine dinucleotide(NAD)-dependent reductase (e.g. lactate dehydrogenase), aldehyde and oxygen contents.

It is prepd. by aerobic cultivation of Photobacterium fischeri in a liquid nutrient (contg. sources of C, N, O and mineral salts), sepn. of microbial cells, sepn. of cell walls and after cell fragmentation, fractional protein pptn. with (NH₄)₂SO₄, from aq. protoplasm soln. and sepn. of luciferase by dissolving pptn. in phosphate buffer and column chromatography using Sephadex columns anion-exchanger packing) and freeze-drying to increase specific activity of the prod. (3pp)

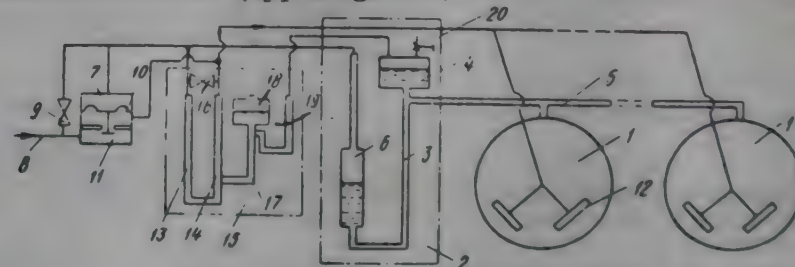
INDU = ★ D16 81878 D/34 ★ SU-785-355
Brandy spirit maturing unit - has main and auxiliary tanks connected to common manifold and oxygen supply system fitted with diaphragm repeater

INDUSTR PROD PROCES 10.01.79-SU-711944

(10.12.80) C12h-01/22

30.01.79 as 711944 (89WD)

Automatic control of oxygen supply to the unit for maturing brandy spirit and prevention of excess pressure in the tanks which contribute to the enhanced quality of the product are ensured by the oxygen diffuser. The latter is made of oak wood and a line is provided for oxygen feed to the compensation vessel fitted with an auxiliary tank. All the tanks are interconnected by a common manifold while the oxygen supply system features a diaphragm-type repeater, battery manometer and a hydrostatic pressure converter. (4pp Dwg.No.1)



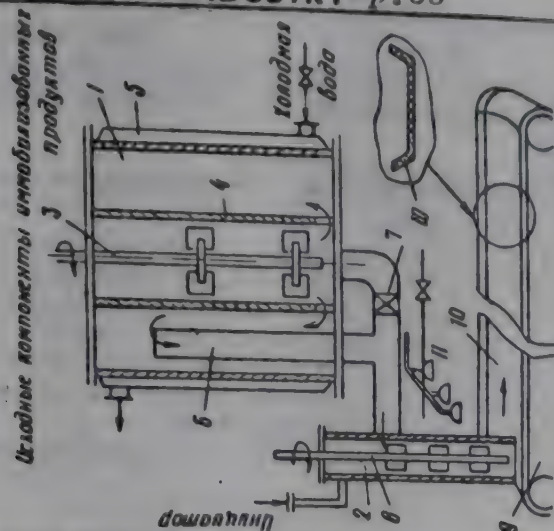
ANTI = ★ D16 81879 D/34 ★ SU-785-356
Biologically active product immobiliser - has two stirred communicating vessels feeding cellular belt conveyor cooled by water spray

ANTIBIOTICS RES INS 29.12.78-SU-724787

(10.12.80) C12k-01/10

29.12.78 as 724787 (89WD)

Improved, immobilised, active, biological product is produced by a unit which prepares a viscous reactive mass. It comprises two communicating vessels holding stirrers with the first one ensuring the preliminary mixing of the initial components. The second vessel blends the resulting product with an initiator of reaction, while the viscous mass is handled by the conveyor belt (10) exhibiting cells or troughs. (3pp)



AKMI = ★ D16 61880 D/34 ★ SU-785-357
Micrococcus aurantiacus variety Micrococcus rubescens 53 -
 used in purifying aq. effluents from petroleum and its products

AS KAZA MICROBIOL 15.12.78-SU-696089

H04 (10.12.80) C02b-09/02 C12n-15

15.12.78 as 696089 (70VE)

New strain *Micrococcus aurantiacus* dap. *Micrococcus rubescens* 53 strain appears in the form of spheroidal (less frequently oval) cells, which may be coupled in pairs or foursomes, in aggregates or short chains. The cell size is 0.5-1.25 microns. The cells are immobile, gram-position, aerobic. The optimal growth temp. is 27-28 deg.C.

The strain thrives on synthetic media; assimilates mineral nitrogen and peptone. The strain is capable of oxidising 86.1% of the petroleum and prods. in effluents, in one day. Bul.45/7.12.80 (3pp)

AUCO = ★ D16 61881 D/34 ★ SU-785-358
Achromobacter eurydice TK microbial strain - used for
 purification of aq. effluents from di:sodium mono:alkyl-sulpho-
 succinate detergent mfr.

AS UKR COLLOID CHEM 29.12.78-SU-702464

(10.12.80) C02c-05/10 C12n-15

29.12.78 as 702464 (70VE)

New strain *Achromobacter eurydice* TK forms single small, rodlike cells with rounded ends. The cells are gram-positive, immobile. Cultures are oxidase-negative; indol and H₂S are not formed; starch and gelatin are not hydrolysed; milk is eurolled. The Hugh and deifson reaction is positive. The strain is aerobic. Optimal cultivation temp. is 28-30 deg.C.

The strain decomposes up to 400 mg/l. of disodium monoalkyl sulphosuccinate. Bul.45/7.12.80 (3pp)

AUCO = ★ D16 61882 D/34 ★ SU-785-359
Pseudomonas aeruginosa microbial strain - used for biochemical
 purification of aq. effluents from aniline dyes prodn.

AS UKR COLLOID CHEM 18.04.79-SU-758205

E24 (10.12.80) C02c-05/10 C12n-15

18.04.79 as 758205 (70VE)

New strain *Pseudomonas aeruginosa* 1B is used for removal from aniline dyes prodn. aq. waste organic cpds., in particular aniline, oismethylaniline, naphthalene, p-nitrophenol, o-nitroanisole and p-nitrophenitole.

The strain appears in the form of straight cells, single or forming short chains; gram-negative; aerobic. The strain does not form spores or capsules.

The culture is oxidase-positive, optimal culture temp. is 22 deg.C The strain decomposes a mixt. of organic synthetic cpds. in 28-100%. Bul.45/7.12.80 (3pp)

UYDU. ★ D16 62016 D/34 ★ US 4281-645
Appts. for monitoring metabolism in body organs - using the
 absorptive qualities of the organs to near infrared radiations

DUKE UNIV INC 28.06.77-US-810777

S05 P31 (04.08.81) A61b-05

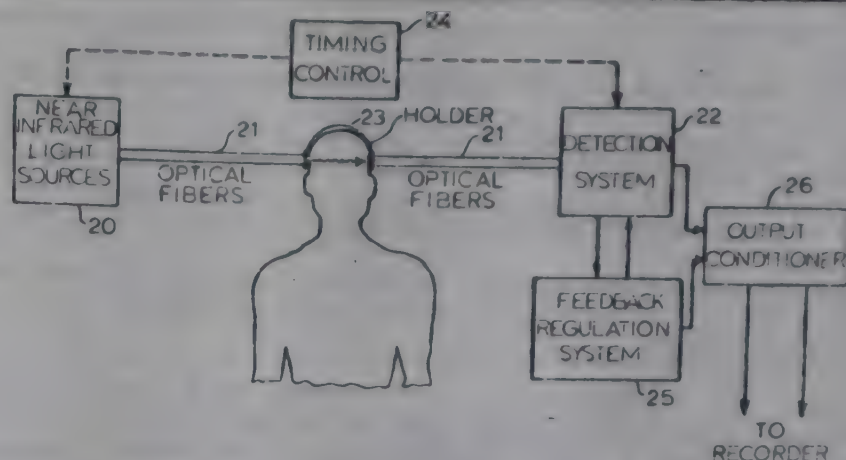
28.06.77 as 810777 (525DJ)

A spectrophotometric method for measuring metabolism of an organ comprises passing a beam of near infra red light in the 100-1300 monometer spectral range through the organ, the beam being of such a wavelength as to be absorbed by the organ.

The degree of absorption depending upon the metabolic rate of the organ. Also passed through the organ is a beam of a reference wavelength which is not absorbed. The difference in absorption between the two beams can be displayed and is a measure of the metabolic rate of the organ.

Non-invasive continuous monitoring is possible. (24pp

Dwg.No.5)



UYOR- D16 06086 D/05 = US 4282-256
Enhancing growth of acid-producing bacteria in culture media -
 by inclusion of insoluble neutralising agent at start of culture

OREGON STATE UNIV 28.06.79-US-052960

C03 (D13) (04.08.81) *EP--22-341 C12n-01/20 + A23c-09/12

28.06.79 as 052960 (982WB)

Acid producing bacteria used in fermenting foods are grown by inoculating the bacteria into a growth medium contg. H₂O and nutrients for the bacteria and growing the bacteria in the growth medium and using the bacteria for fermenting the food.

Improvement comprises (a) providing a water-insol. non-toxic basic neutralising agent in the growth medium so a part of the neutralising agent remains in solid form in the medium; (b) growing the bacteria in the growth medium in the presence of the neutralising agent with the medium and cells in contact with the neutralising agent, the pH range being maintained so as to promote growth of the bacteria by a controlled reaction of the neutralising agent with at least a part of the acid produced by the bacteria in the medium over a period of time; and; (c) fermenting the food with the bacteria after they have been grown in the growth medium including the neutralising agent.

The neutralising agent is a Mg phosphate or Mg ammonium phosphate in an amt. sufficient with other media ingredients to inhibit lactic bacteriophage. An amt. of neutralising agent is added initially to the growth medium prior to the generation of acid by the bacteria which is at least sufficient to keep the pH above 5.

Method is used in making food and beverage prods. for animals and humans. (10pp)

NAKA- D16 60770 C/35 = US 4282-257
Vinegar of high acetic acid concn. prodn. - by submerged
fermentation in two stages at different temp.

NAKANO VINEGAR CO L 13.02.79-JP-014216

(04.08.81) *DE3005-099 C12j-01 + C12p-07/54

25.01.80 as 115419 (982PW)

Prodn. of vinegar by a submerged fermentation comprises keeping the temp. of a fermenting broth at 27-32 deg.C until the acetic acid concn. of the fermenting broth after the initiation of fermentation reaches 12-15 wt.% by vol. and keeping the temp. of the fermenting broth at 18-24 deg.C. until finished vinegar having an acetic acid concn. higher than 18 wt.% by vol. is obtd.

No acclimatised acetic acid bacteria is used. The loss of alcohol due to evapn. is reduced. Process is efficient. (6pp)

DIST D16 63484 A/36 = US 4282-259
Bitter essence extrn. from hops - by contact with liq. carbon
di:oxide which dissolves essence and heating soln. to recover
essence

DISTILLERS CO LTD 29.04.77-GB-018056

(04.08.81) *BE-866-572 + A231-01/20

07.03.80 as 128061 (+ 20.04.78-US-898246) (006HM)

Process for extracting oil from hops uses liq. CO₂ as solvent, to form a soln. which is heated to vaporise the CO₂ for re-liquefaction and re-cycle.

Heat recovered from the re-liquefaction step is used in the soln-heating step. Re-cycling of re-liquefied CO₂ is continued until a hops-CO₂ contact phase includes extracted oil which has fallen out of soln. and can be collected. (12pp)

AMMA ★ D16 62199 D/34 ★ US 4282-261
Removal of haze precursors from beverages - by treatment with
positive charge-modified particulates, then filtration

AMF INC 30.10.80-US-202389 (09.08.79-US-065258)

A97 (D13) (04.08.81) C12h-01/04

30.10.80 as 202389 (478KB)

Haze precursors (I) are removed from unstable beverages by treatment of the haze-free liq. with a positive charge- modified porous medium (II) at ambient temp. The ppte. is then removed at ambient temps. (II) is a fine particulate, the charge being

modified with a polyamidopolyamine epichlorhydrin cationic resin.

Fine particulate is pref. diatomaceous earth and/or perlite (mean particle size less than 10 (less than 5) microns) and this is pref. used with a self-bonding matrix of cellulose fibres of Canadian Standard Freeness 100-600 (200-300) ml (50-70 wt.% particulates). The cationic resins are available as 'Polycup 1884, 2002 or S2064' (RTM), etc. and amt. used is 1-3 wt.% of the filter medium.

Simple economical method effectively removes (I) from a variety of (esp. alcoholic) beverages, thus stabilising them to storage etc. (7pp)

CORG D16 25730 D/15 = US 4282-315
Isolating specific population gps. of viruses - by selective complex formation, useful as antigens and for cell receptor assay
CORNING GLASS WORKS 13.09.79-US-074918
B04 (04.08.81) *DE3034-142 C12n-07 G01n-33/54
13.09.79 as 074918 (974HM)

Virus subpopulations having significantly increased binding sensitivity towards host cells for the virus is prepd by (i) contacting a virus population with an inanimate substrate having moieties which mimic host cell receptor sites for cell binding protein of the virus; (ii) complexing (some of) the virus population with the substrate; (iii) removing non-complexed virus; (iv) dissociating the complex; and (v) recovering the complexed virus from the substrate as the subpopulation.

Pref. the substrate is immobilised. Pref. the virus and substrate complex through sialic acid gps. of the substrate. Pref. the virus is an influenza virus or paramyxovirus. (7pp)

MODR/ ★ D16 62231 D/34 ★ US 4282-316
Stabilised urease soln. for urea determ. - contg. water, buffers, bacteriostat, chelating agent, polyhydroxy cpd. and urease
MODROVICHIE 11.09.79-US-074544
B04 J04 (04.08.81) C12q-01/58
11.09.79 as 074544 (1248DJ)

Stabilised urease soln. comprises 0.5-5% by wt. of the water of heavy metal-free N-2-hydroxyethylpiperazine-N'-2-ethane sulphonic acid (I); a zwitterionic low conductivity buffer to provide pH 5-9 and selected from (I), triethanolamine, tris(hydroxymethyl)aminomethane, diethanolamine and/or aminomethylpropanol; as bacteriostat, 2,4-dichlorophenol or an alcohol that is non-degradative to urease; as chelating agent, EDTA or an amino acid; about 50% by vol. of the soln. of glycerol, ethylene glycol, sorbitol or propylene glycol; and urease at about 25000 i.u. (+ or -25%).

The soln. is used in the determ. of urea quantitatively in human blood and sera etc. by methods based on conductivity on photometric measurements. The urease soln. is effectively stabilised for prolonged storage to provide on economic reagent that does not require freeze drying, individual packages etc. After dilution the solns. are stable for about 1 month at room temp. (6pp)

ROTH/ D16 48398 C/28 = US 4282-317
Prodn. of nutrient substrates contg. low methoxy pectin - which is gelled with polyvalent metal cation
ROTH J N (CONV) 21.02.79-US-006253 (18.12.78-US-970347)
(04.08.81) *DE2950-776 C12n-01/20 C12n-05 + C12q-01/04
21.02.79 as 006253 C.i.p.4241187 (+ 15.01.79-US-003258) (974KB)
Gelled biological growth medium is prepd. by (a) providing a predetermined amount of a liq. growth medium, (b) providing a predetermined amount of a low methoxyl pectin material, (c) providing a culture-growth container contg. a growth compatible gel and (d) adding the liq. growth medium and the pectin material to the gel. The pectin material is the sole functional gelling agent in the prod.

The gel in (c) contains a multivalent metal cation material to produce gelling of the pectin material. It is in contact with the bottom of the container. (10pp)

FARB D16 53463 A/30 = US 4282-318
Alpha-amylase inhibitor for treating diabetes and obesity - prepd. by fermentation of *Streptomyces tendae* 4158
HOECHST AG 19.01.77-DE-701890
B04 (04.08.81) *BE-863-089 C12p-21
02.01.80 as 109170 Div.ex.4226764 (+ 17.01.78-US-870247) (974KB)
Peptidic glycoside hydrolase inhibitors of mol.wt. 5000-10000, UV absorption maximum at 276 nm and isoelectric point 4.4 are prepd. by cultivating *Streptomyces tendae* 4158 (ATCC 31210). They contain 5-6 Asp, 5-6 Thr, 3-5 Ser, 5-6 Glu, 2-3 Pro, 5-6 Gly, 5-6 Ala, 3-4 Cys, 5-6 Val, 1-2 He, 3-4 Leu, 4-5 Tyr, 0-2 Phe, 1-2 His, 0-1 Lys, 2-3 Arg and 1-2 Try units.

Pref. the culture medium contains 3-5% soluble starch, 0.2-0.6% comasteep liquor, 0.5-1.5% glucose, 0.5-1% (NH₄)₂HPO₄, 0.3-0.6% soy flour and 0.5-1.5% casein peptone. (6pp)

FARB D16 62657 C/36 = US 4282-320
Glycoside hydrolase inhibitor 1-deoxy-nojirimycin prodn. - by cultivation of bacillaceae strains in media contg. sorbitol as carbon source

BAYER AG 23.02.79-DE-907190
B04 (04.08.81) *DE2907-190 + C12p-19/26
28.01.80 as 116174 (974HM)

1-Desoxynojirimycin (I) is produced by culturing a (I)-producing strain of the Bacillaceae family in a nutrient soln. contg. C and N sources and trace elements at 15-80C in a fermentation vessel whilst aerating and then isolating (I). The C source is sorbitol.

Pref. the culturing is started at 15-30C and the temp. is increased to 30-50C over the second half of the logarithmic growth and the first half of the stationary phase.

(I) is an antibiotic which inhibits microbial alpha-glycosidases. (4pp)

PFIZ D16 44502 C/25 = US 4282-321
Fermentative prodn. of xanthan gum - with gradual addn. of carbon source, for foodstuff industry and sec. oil recovery operations

PFIZER INC 09.10.79-US-080195 (30.11.78-US-964951)
H01 + Q49 (D13) (04.08.81) *NL7907-886 C12p-19/06 C12r-01/64
09.10.79 as 080195 (974PW)

Xanthomonas biopolymer is produced batchwise by (i) aerobically propagating the organism in an aq. nutrient medium contg. an assimilable C source to form an inoculum; (ii) introducing the inoculum into an aq. medium free of a suitable C source; (iii) initially feeding at an exponentially increasing rate a source of assimilable C into the inoculated medium under aerobic conditions for 0-24 hrs.; (iv) continuing feeding at a constant rate until a total carbohydrate consumption equivalent to up to 7% w/v glucose is achieved, and (v) recovering the prod.

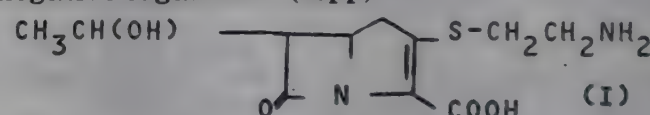
Process gives increased xanthan yields. (3pp)

MERI ★ D16 62232 D/34 ★ US 4282-322
Thienamycin, desacetyl antibiotic 890A1 and 890A3 prepn. - by enzymic cleavage of corresp. N-acetyl cpd. with amido:hydrolase
MERCK & CO INC 27.08.79-US-070082 (24.11.75-US-634560)
B02 (04.08.81) C12p-17/18

27.08.79 as 070082 (21.10.76, 6.4.78-US-734584 893848) (916AT)
Thienamycin and its isomers, antibiotics desacetyl 890A1 and desacetyl 890A3 of formula (I), are prepd. by enzymic cleavage of the corresp. N-acetyl cpd. with an amidohydrolase esp. that produced by the microorganism *Protaminobacter ruber*.

Antibiotic 890A1 and 890A3 are prepd. by cultivation of *Streptomyces flavogriseus*, strain NRRL 8139 giving both and strain NRRL 8140 giving 890A1 only. N-acetylthienamycin is produced by cultivation of *Streptomyces cattleya* NRRL 8057.

Antibacterial agents active against both gram-positive and gram-negative organisms. (23pp)



DUPO ★ D16 62233 D/34 ★ US 4282-323
Recovery of lower carboxylic acids from aq. salt solns. - by neutralisation with carbon dioxide in presence of solvent
DU PONT DE NEMOURS CO 09.10.79-US-082986
E17 (04.08.81) C12p-07/40 C12r-01/14

09.10.79 as 082986 (478AT)
1-20C carboxylic acids (I) are recovered from aq. alkali(ne earth) metal or NH₄ salt (II) solns. by treatment of the aq. soln. with CO₂ under pressure in the presence of a liq. polar organic solvent (b.pt. -30 to +90 deg.C). At least part of the salt is converted to (I) which then dissolves in the solvent and may be recovered from it.

Pref. (II) are salts of 1-20C aliphatic monocarboxylic acids, 3-20C olefinic monocarboxylic acids, or 7-20C aromatic carboxylic acids. Solvent pref. has OH, CO, or CHO gps. as the polar gps. Treatment is at 0-80 deg./1-110 pref. 10-750 psig with vol. ratio solvent; H₂O = 0.1-10:1. Process allows the recovery of (I) (esp. HOAc or butyric acid) esp. from fermentation liqs. without the use of any consumable salts or acids, or the disposal problem of produced by-prod. salts. In addn., all materials are recoverable and recyclable. (7pp)

CETU ★ D16 62234 D/34 ★ US 4282-324
Continuous prodn. of iodine from brines and bitterns etc. - by enzymatic oxidn. of iodide contg. solns.

CETUS CORP 25.06.79-US-051847
E36 (04.08.81) C12p-03
25.06.79 as 051847 (478AT)

I₂ is produced as follows: (a) a mixt. of H₂O, a halogenating enzyme (I), an oxidising agent (II), an H₂O-immiscible solvent, and a source of ionic iodide (III) (but no I₂-acceptor substrates) is

(I) may be derived from *Caldariomyces fumago*, seaweed, milk, thyroid, etc. and is opt. immobilised. (II) is pref. H₂O₂. Solvent is suitably PhH, PhMe, xylene, CCl₄, etc. Reaction is at 15-50 pref. 20-30 deg. in the presence of a buffer (Na or K phosphate, citrate, etc.).

Process avoids use of C12, may be effected under ambient conditions, minimises waste disposal problems, and allows the selective recovery of I2 even in the presence of Br- and Cl-. In addn., process is effective with brines and bitterns. (6pp)

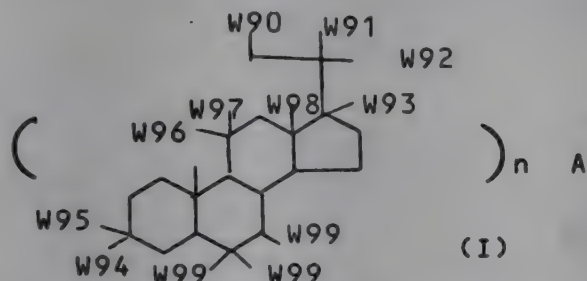
SYNT ★ D16 62235 D/34 ★ US 4282-325
Enzyme bound corticosteroid conjugates - useful for sensitive assay of steroid(s)

SYVA CO 07.05.79-US-036929 (19.01.77-US-760499)

B04 (04.08.81) C12n-09/96

07.05.79 as 036929 Div ex 4067774,3852157C.1.p.4190496, 4191613,4203802 (+14.5.71,6.11.72,20.6.74,13.9.76,2.6.77,5.12.77- US-14

Enzyme-bound ligands of formula (I) are new: (Any one W gp. can be X, or an H in any W gp. can be replaced by X; X is a bond or linking gp. A is enzyme bonded at other than its reactive site; n is from 1 to mol.wt. of A divided by 2000; W90 and W93 are H or hydroxy. One of W91 and W92 is H and the other hydroxy, or together they are OXO. W94, W95, W96 and W97 are H or hydroxy, but one of W94 and W95 must be hydroxy. W98 is methyl or formyl. W99 is hydrogen, or two together form a double bond. Ring A or B opt. contains 1 ethylenic bond). (I) are reagents for rapid, accurate and very specific detection and assay of corticosteroids. The parent patent describes a wide range of other enzyme-bound ligands also suitable for clinical etc. assays. (39pp)



MOLD/ ★ D16 62236 D/34 ★ US 4282-326
Cell culture medium supplement - contg. a phosphate buffered saline and amino acid mixt. from animal tissue digest

MOLDENHAUER J 22.06.79-US-051248 (12.10.78-US-950748)

B04 (04.08.81) C12n-05

22.06.79 as 051248 (1248KB)

Cell culture medium supplement comprises 0.336% KCl, 0.36%, KH₂PO₄, 13.4% NaCl, 1.93% Na₂HPO₄ and 84% amino acid mixt., by dry wt. The mixt. typically contains a trace of L-cystine, 1.26% L-tyrosine, 6.25% lysine, 2.62% histidine, 3.45% arginine, 8.96% aspartic acid, 4.30% threonine, 4.75% serine, 11.08% glutamic acid, 4.65% proline, 5.98% glycine, 6.78% alanine, 6.30% valine, 1.93% methionine, 3.19% isoleucine, 7.26% leucine, 4.35% phenylalanine and 0.99% hyptophan. Similar amino acid mixts. may also be used.

The supplement may be used for a wide variety of cell line and the use does not necessitate extended adaption of a cell line to the medium as supplemented. With the supplement the cell culture properties of blood serum are stimulated. (7pp)

UPJO ★ D16 62237 D/34 ★ US 4282-327
Pure culture of *Paecilomyces abruptus* - producing antibiotic effective against Gram positive bacteria

UPJOHN CO 21.06.78-US-917599 (22.04.77-US-789644)

B04 C03 (D22) (04.08.81) C12n-01/14

21.06.78 as 917599 Div ex 4123521 (AS)

Biologically pure culture of the microorganism *Paecilomyces abruptus* sp. nov., having the identifying characteristics of NRRL 11,110 produces antibiotic U-53,946 in pure form.

Antibiotic (a) has the mol. formula C₆₁H₁₀₇N₁₁O₁₄; (b) has the elemental analysis: C, 60.13, 59.73; H, 9.21, 8.92; N, 12.16, 11.97; O, 18.44; (c) has a specific rotation alpha D₂₅ = -26 deg.(c,0.9175 EtOH); (d) is soluble in lower alcohols, e.g. (m)ethanol, ethanol and butanol; ketones, e.g. MEK, halogenated solvents, ethyl acetate, or other ester-type solvents; and is relatively insoluble in aliphatic hydrocarbons.

It is produced by fermentation in an aq. nutrient medium contg. assimilable sources of C, N and inorganic substances. (-pp)

KANF ★ D16 62238 D/34 ★ US 4282-328
Aerobic microorganism cultivating apparatus - having a cell multiplying compartment directly feeding a cell ripening compartment

KANEGAFUCHI KAGAKU 19.12.79-US-105417

(04.08.81) C12n-01/16

19.12.79 as 105417 (525NS)

Appts. comprises a cell multiplying means consisting of an extended tube draft fermenter having a central draft tube up through which a mixt. of nutrients and air passes. A cell opening means is located atop the fermenter and comprises a stack of units sepd. by perforated plates. Each unit has a jacket through which cooling liq. is passed via inlets and outlets and is fed by nutrient supply line. In use, most of the nutrient rising up the draft tube is deflected back down around the outside of the tube by the perforated plate and again rises up the tube to form a recirculating action. The remainder of the nutrient and the air passes up through the perforated plates where it is mixed with fresh nutrient and temp. treated. Dispersion of the air in the units is ensured by the perforated plates.

Improved oxygen transfer rate to give a higher concn. of microorganisms than prior art. (7pp)

ANIS D16 00225 C/01 = US 4282-351
Chitosan-glucan complex from fungal mycelium - by treating with alkali to remove chitin acetyl groups (NL 18.12.79)

ANIC SPA (MUZZ) 14.06.78-IT-000625

A11 B04 F06 P34 (B07 D13 D22 F09) (04.08.81) *DE2923-802 C07g-07 C08b-37/08

04.06.79 as 045002 (974HM)

Chitosan-glucan complexes having the given 1R spectrum are produced by treating a yeast, mould or fungus biomass contg. chitin and glucan with a soln. of a strong alkali having a concn. of 30-50 % at up to the b.pt. of the soln.

Pref. the biomass is pretreated with a soln. of strong alkali of concn. less than 30% at a lower temp. Pref. the alkali is NaOH and the biomass is an *Allomyces*, *Aspergillus*, *Zygorrhynchus* fungus.

Prods. are flocculants or chromatographic medl. (7pp)

NIRA D16 40156 C/23 = US 4282-352
N(6)-Carboxy-ethyl adenosine triphosphate - useful as immobilised enzyme co:factor and for enzyme affinity chromatography

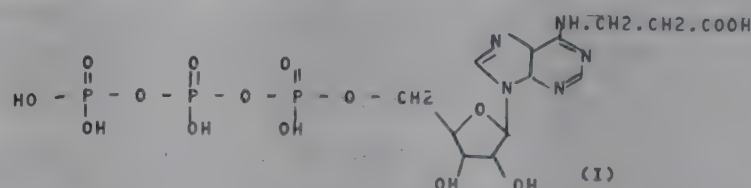
UNITIKAKK 08.11.78-JP-138123

B02 J04 (04.08.81) *DE2945-129 + C07h-17

07.11.79 as 091996 (974HM)

Novel ATP derivs. are of formula (I) or their alkali metal salts. (I) are used as ligands for affinity chromatography or as enzyme cofactors in industrial enzyme applications. They have high substrate activity.

(I) is e.g. prepd. by reacting ATP with beta-halopropionic acid and carrying out a Dimroth rearrangement. (4pp)



SVEN/ ★ D16 62288 D/34 ★ WP 8102-104
Oligosaccharide isolation from cell tissue - by cleavage of glycoside linkages with tri:fluoro acetic anhydride

SVENSSON SE 28.01.80-SE-000658

B04 (06.08.81) A61k-31/70 C07h-01/08 C07h-03/06

28.01.81 as SE0021 (367DJ) (E) 8.Jnl.Ref N(AU CH DK JP US) E(DE FR GB NL)

Isolation of oligosaccharides (including oligosaccharides bonded to 2-acetamido-2-deoxyhexose units) from cell tissue is effected by selectively cleaving glycoside linkages (including 2-acetamido-2-deoxyhexose pyranoside linkages) in the cell-tissue glycoconjugates (glycoproteins, proteoglycans and glycolipids) with a reagent contg. or comprising trifluoroacetic anhydride (I). The resulting oligosaccharide trifluoroacetates are opt. then de-trifluoroacetylated.

The reagent pref. comprises at least 10 vol.% (I) and up to 90 vol.% trifluoroacetic acid (II). The process is pref. carried out by autoclaving the cell tissue with the reagent (e.g. at 100 deg.C and 4 atmos.), evaporating the reaction mixt. to dryness, partitioning the residue between water and a water-immiscible solvent, and isolating the oligosaccharides from the aq. phase by chromatography. Erythrocyte membranes are pref. homogenised, suspended in water and freeze dried before treatment.

The process is esp. useful for isolating blood-group-specific oligosaccharides from erythrocyte membranes. These

oligosaccharides can be used to isolate antibodies (by immunisation or immunoabsorption) for blood group determin. (17pp)

BAXT ★ D16 62289 D/34 ★ WP 8102-105
 Prodn. of activated prothrombin complex concentrates - with control of degree of activation by control of activation conditions
BAXTER TRAVENOL LAB 28.01.80-US-116187 (28.01.80-US-116186)

B04 (06.08.81) A61k-35/14 C12n-09/74 C12q-03
 02.01.81 as U00003 (367DJ) (E) US3560475 US4160025 9.Jnl.Ref N(DE DK JP) E(AT DE FR GB SE)

Activation of blood protein fractions contg. prothrombin complexes under conditions which produce enzymatically active blood-clotting factors is carried out by (a) selecting at least one condition to be varied to control the degree of activation, (b) determining the magnitude of the condition needed to attain a predetermined degree of activation, (c) setting the condition to this magnitude, and (d) conducting the activation in accordance with the condition.

More specifically, the procedure comprises monitoring the non-activated partial thromboplastin time (NAPTT) and the factor VIII correctional time (FECT), selecting a protein fraction having a NAPTT of more than 89 sec and/or a FECT of more than 200 sec., and controlling the activation time to give an activated product with a NAPTT of 70-100 sec. Also claimed are methods and aq. compsns. for treating patients having an inhibitor of a blood clotting factor, where the compsns. have specified clotting factor activities.

The process allows standardised prothrombin complex concentrates to be produced without blending of finished products. (49pp)

WIST- ★ D16 62291 D/34 ★ WP 8102-107
 Attenuated varicella virus vaccine prodn. - by serial passaging on human lung fibroblasts

WISTAR INST ANATOMY 25.01.80-US-115437

B04 (06.08.81) A61k-39/25

21.01.81 as U00075 (1251DJ) (E) 9.Jnl.Ref N(CH DE GB JP) E(FR)
 Prodn. of attenuated varicella virus vaccine comprises serial passaging in human diploid lung fibroblasts, using a strain of virus characterised by plaque neutralisation as seen by positive fluorescence when subjected to fluorescent antibody to membrane-antigen testing. Pref. fibroblasts are the MRC-5 and esp. WI-38 cell lines, and at least 50 passages are used, each passage being at 30-37 deg.C for 4-7 days.

Pref. in a first series of passages, trypsinised supernatant fluids contg. infected cells are used for inoculation of the next batch of fibroblasts, and in a second series, a trypsinised cell-free suspension contg. virus is used. The pref. virus is the Webster strain. The first and second series of passages pref. comprise about 25 and about 45 passages, respectively. The final attenuated virus is filtered and the filtrate used directly or after freeze-drying (pref. after adding sorbitol stabiliser). The vaccination dose is at least 500 TCID₅₀.

The vaccines are given subcutaneously to protect humans against varicella. They cause no clinical reactions and cannot transmit latent animal viruses. (14pp)

See Also

D15 J5 6081176	D15 SU 785229	D15 SU 785231
D15 WP 8102088	D17 J5 6082097	D18 US 4281997
D21 GB 2068730		

D17: SUGAR; STARCH

SCHO/ D17 45991 A/26 = GB 1595-956
 Continuous powdery active lime prodn. - by calcining sugar industry waste lime contg. organic materials

SCHOPPE F 16.12.76-DE-657135

E33 + Q77 (19.08.81) *DE2657-135 C01f-11/02
 16.12.77 as 052351 Add to GB1476963 (931BZ)

Particulate surface-active CaO is continuously produced from a finely divided or fluid-like substance by calcination in a reaction chamber. The process is carried out with a throughput rate and pressure drop related to the chamber's dimensions, e.g. a hot gas throughput of 350,000 cub.m. per hr. at 130 deg. and pressure drop of 600 mm. WG. for the chamber used.

The chamber comprises a rotationally symmetrical, vertically arranged structure of upwardly widening shape, contg. an inlet connection for the carrier gases at its lower end; a spiral guide for the inlet flow; and an inlet at the upper end for the calcium-contg. starting material.

The processes utilise the calcium-contg. sludge by-prod. of a sugar-making process to form a prod. Suitable for lime milk prodn. (5pp)

ELED ★ D17 61223 D/34 ★ J5 8082-097
 Glucose prodn. in high yield - by treating starch hydrolysate with soluble glucoamylase and soluble pullulanase, adjusting solid conc. and treating with fixed glucoamylase

DENKI KAGAKU KOGYO CO(NAGS) 05.12.79-JP-157878

(D16) (04.07.81) C12p-19/20

05.12.79 as 157878 (42KB)
 A starch-hydrolysate of dextrose equiv 5-30 is treated with soluble glucoamylase and soluble pullulanase, to be converted into a hydrolysate contg 50-85 wt % of glucose. The solid-conc of the hydrolysate is adjusted to 30-50 wt/vol %, and then treated with fixed glucoamylase. Thus glucose is obtd.. Glucose is produced in high yield from a conc substrate.

Starch obtd from corn, potato, sweet potato, etc is liquefied with alpha-amylase from *Bacillus licheniformis* or *Bacillus subtilis*. The prep'd liquefied starch is treated with soluble glucoamylase from *Aspergillus niger*, *Asp. phoenicis*, or *Rhizopus*, and pullulanase from *Klebsiella aerogenes* at 45-70 deg C and pH 4.5-7.0. Pullulanase cleaves alpha-1,6-glucosidic linkage of the starch-hydrolysed prod. The activities of glucoamylase and pullulanase used are 2-15 units/g-starch and 0.05-5 units/g-starch, respectively. The hydrolysate is filtered and its solid-conc is adjusted to 30-50 wt/vol %, e.g. (35-40 wt/vol %) and treated with fixed glucoamylase of specific activity 500.

fixed glucoamylase/hr. (8pp)

SUMD D17 48586 A/27 = J8 1031-959
 Sugar juice or dissolved sugar liquor purificn. - by adding slightly calcinated dolomite, calcinating the residue and blowing carbon dioxide into the filtrate

SUMITOMO CEMENT KK 06.11.76-JP-132773

(24.07.81) *J53059-042 C13d-03/06 + C01f-05/02 C01f-11/02

06.11.76 as 132773 (22KB)

Slightly calcinated dolomite is added to sugar juice or dissolved sugar liquor; the resultant is filtered, the filtration residue is calcinated, opt. with addn. of coagulating agent to give highly purified magnesia clinker or MgO-rich dolomite clinker; the filtrate is blown with CO₂ to ppte. fine calcium carbonate to which impurities in the filtrate are absorbed.

In an example, to dissolved sugar liquor is added dolomite calcinated at 1100 deg.C in an amt. of 0.8 wt.% in terms of CaO, and the resultant is filtered. The filtration residue is calcined to give MgO-rich dolomite clinker. To the filtrate is blown CO₂ to give calcium carbonate to which impurities are absorbed. The calcium carbonate is removed by filtration to give purified sugar liquor. (J53059042) (3pp)

SUNO ★ D17 62201 D/34 ★ US 4282-263
 Gasified fusible sugar composition manufacture - by evaporating a sugar solution to a meltable state which is aerated and then cooled

SUNMARK INC 10.05.79-US-037852

(04.08.81) A23g-03

10.05.79 as 037852 (525NS)

Manufacture comprises feeding a sugar soln. to an evaporator in which sufficient water is driven off to form a congealable material. A gas under a pressure of 400 psig is mixed with the material from the evaporator under intense agitation to form a dispersion of gas in the material of at least 3 mil per gm. Finally the gasified product so formed is cooled to a solid state to form a matrix contg. finely dispersed bubbles.

The continuous process overcomes the difficulties associated with prior art batch processes. No beaming or other deleterious effect on the sugar. (10pp)

WMAC- D17 40244 D/23 = WP 8102-114
Vertical axis continuous centrifuge partic. for sugar crystals - has belt drive to pulley flexibly coupled to centrifuge basket shaft
WESTERN STATES MACH 21.01.80-US-113980 (21.01.80-US-113745)

P41- (06.08.81) *BE-887-175 + B01d-21/26
21.01.81 as U00072 (448HM) (E) US3333707 US3362243 US3727429 US3129174 US2519813 US3283910 US4141837 N(BR JP) E(DE FR GB NL SE)

Continuous centrifuge has an open-topped, internally coned centrifuge basket fixed on a vertical, coaxial, high speed rotary shaft. The vertical shaft rotates in bearings in a housing sleeve which is carried on resilient mountings. The lower end of the shaft extends through the sleeve to be coupled to a drive motor.

The lower end of the shaft is now fitted into the upper half of a coaxial, flexible coupling. The lower half of the flexible coupling

is fixed to the top of a coaxial stub shaft which is integral with coaxial driven pulley. The pulley rotates on a coaxial, internal bearing fitted on an upwardly projecting fixed shaft. The drive pulley is belt driven from a driving pulley on a motor shaft. The upwardly projecting fixed shaft can pref. be adjusted to bring its axis in line with that of the centrifuge basket shaft.

Used for centrifugal sepn. of liq. from solids partic. of syrup from sugar crystals in the mfr. of sugar. The flexible coupling eliminates unequal wear on drive belts which can arise through gyratory oscillations of the basket on its resilient mountings. The drive belts can be in a tunnel isolating them from discharged effluents of sepd. liqs. and solids. (20pp)

See Also

D13 EPG 006592

D15 EP G00861

D16 G2068974

D18: SKINS; HIDES; LEATHER; TOBACCO

BRLE-★ D18 60962 D/34 ★GB 2068-999
Use of polyvalent metal(s) as tanning agents - producing improved stability of animal skins

BRIT LEATHER MFRS R 11.02.80-GB-004513

A82 (19.08.81) C14c-03/22

11.02.80 as 004513 (1473BZ)

The stability of animal skins is improved by treating the skins with (a) a salt of a polyvalent metal (i) and (b) a polymer or oligomer containing carboxyl (deriv.) or OH functional gps. capable of reacting with ions of (a). Leather articles are made from the treated skins.

(b) has a minimum of 6 functional gps/molecule and m.wt. of 500 and is a styrene-maleic acid copolymer, a polymer containing acrylic acid units, or a cellulosic polymer such as sodium alginate or carboxyl methyl cellulose. (i) is Al, Zr(IV), Ti(IV), Ce(III), or Fe(III). When Cr(III) is used with Al, Zr(IV), Ti(IV) or Ce(III), molar ratio is 1:5. (a) is derived from aluminium sulphate and contains a low mol.wt. (hydroxyl) carboxylic acid ligand, or is a mixed complex of Al-Ti, Al-Zr or Al-Cr. (3pp)

FILM = ★ D18 61883 D/34 ★SU -785-360
Leather scrap grinder - has separate motors driving preliminary breaker and defibering rotors fitted with velocity transducers

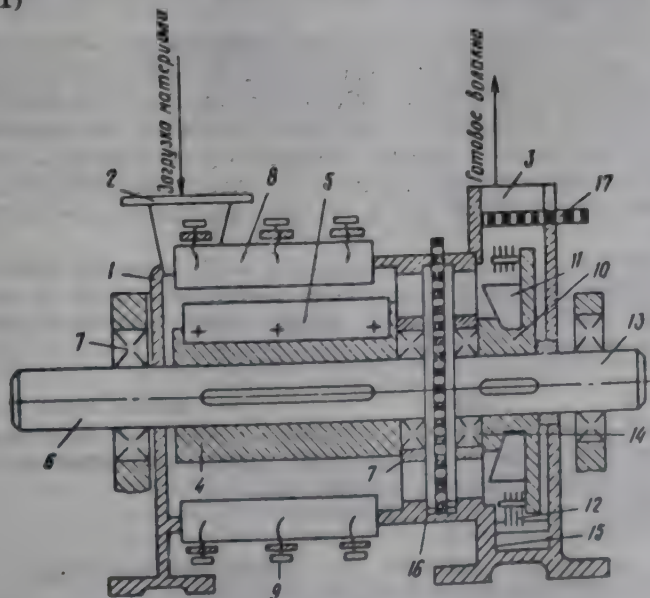
FILM MATERIAL SYNTH 18.12.78-SU-697416

(07.12.80) C14b-13

18.12.78 as 697416 (89GW)

Improved grinding of leather scrap is achieved by using a comparator and a setter while one motor drives the preliminary grinder and the second motor turns the defibering rotor. Each of the rotors is fitted with a speed transducer connected to the comparator and setter while the head sensor is linked to similar checking units operating the drive control through an amplifier.

Drive shaft (6) ensures the preliminary grinding with blades (5,8) when the rejects are fed by hopper (2). The obtd. fractions pass through separator screen (16) and blades (11) provide an air flow entraining the material into the chamber. The rate of feed is then depends on the velocity of rotor (10) where break up is controlled by hammers (12) and toothed segments (15). The sepd. fibres are discharged through the outlet (3). Bul.47/7.12.80 (4pp Dwg.No.1)



WIGG D18 86637 Y/49 = SU-786-851
Fibrous element e.g. cigarette filter formed from fibre suspension - fed through screen having pressure differential applied to form skin around core

WIGGINS TEAPE LTD 02.08.76-GB-032180

A88 F09 P15 + P64 (07.12.80) *BE-857-378 A24d-03/02

09.01.79 as 508653 (GW)

A continuous fibrous element is produced by feeding a fibre suspension into a pref. cylindrical filtration screen through e.g. an inlet and establishing a pressure gradient in different zones along the screen in a direction towards its outlet end.

The pressure gradient and flow rate of the suspension along the screen is such that as fluid is removed through the screen the fibres pack densely around the outside of the element to form a skin, enclosing a core of less tightly packed fibres.

Method is used for making cigarette filters. Subsequent compacting of the fibres, or the application of an outer skin is eliminated. Bul.45/7.12.80 (8pp)

MOLD = ★ D18 61990 D/34 ★SU -786-970
Fermentation of tobacco in bales - by measuring temp. in certain layers and equating with time taken for fermentation to be complete

MOLDTABAKPROM COMBI 15.12.78-SU-697081

P15 (15.12.80) A24b-03/12

15.12.78 as 697081 (29GW)

Method of fermentation of tobacco packed in bales, which is carried out pref. in three stages with establishment of the end of the process. High quality tobacco is ensured through all the layers of the bale and the length of the process is shortened, by measuring the temp. in several of the layers during the fermentation time. According to the obtd. values, the ratio between the fermentation time at the max achieved temp. and the fermentation time at the current temp. is determined. The values for each layer within the structure are totalled. The second and third stages are done by regulating the optimum temp. of the surrounding medium in relation to the difference of the sum of the ratios between different layers in the bale. The end of the process is signified when the difference value is at a minimum. Bul.46/15.12.80 (4pp)

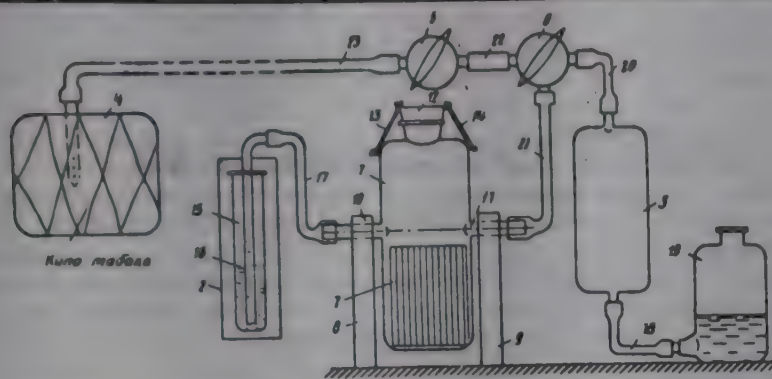
KDFO = ★ D18 61991 D/34 ★SU -786-971
Control appts. for fermentation of tobacco - has absorption chamber with means to purge out air and drawn gas sample which is treated with potassium hydroxide soln.

KRASD FOOD IND RES 14.02.79-SU-727514

P15 (25.12.80) A24b-03/12

14.02.79 as 727514 (29GW)

Appts. for controlling fermentation of tobacco has adsorption chamber (1) and measuring device (2) linked together by tube (17), plus shut-off units. The analysis of samples of gas is speeded up, by providing at least one hollow pin to probe the tobacco bale (4) and withdraw the gas sample. The pin is connected by a tube via the shut-off devices (5,6) to the adsorption chamber. The measuring device (2) consists of a hydraulic trap, fitted with graduated glass tubes connected to the adsorption chamber. The latter and the hollow pins are connected to an equalising container (19) by means of burettes (3). Bul.46/15.12.80 (3pp Dwg.No.1)



BURR- D18 49875 A/28 = US 4281-591
Cigarette filter cover strip - with adhesive applied in inclined tracks to specified width, angle and spacing
BURRUS F J & CIE (BAUM) 04.04.77-CH-004178
A97 P15 + P72 (A14 A81) (04.08.81) *DS2726-548 A24d-01/04
+ B31b-01 B31b-27/08

31.03.78 as 892086 (006HM)
Cigarette filter tips in porous covers, are made by adhering a train of filter units to a porous cover strip by inclined transverse spaced adhesive bands. Any line normal to the length of the assembly intersects at least 3 bands.

Unimpaired porosity combined with efficient adherence between filter unit and porous cover after cutting the assembled rod into plugs is obtd. Pref. the bands comprise rows of spots or short lines. (11pp)

AMFI D18 64740 B/36 = US 4281-671
Cigarette filter additives carried on preimpregnated threads - to facilitate use of different additives sequentially
AMERICAN FILTRONA CORP (CIGA) 21.04.78-GB-015957
F07 P15 (04.08.81) *BE-875-736 A24d-01/04
19.04.79 as 031475 (006HM)

Cigarette filter comprising acetate tow etc., has an internal thread or wrapping tape carrying a smoke-modifying material, such as menthol, licorice etc. which affects taste or aroma.

Pref. the thread is ordinary sewing thread, extending lengthwise of the filter which can have a porous wrapper for ventilation. Dip-impregnated thread or tape is cheaper than tow-spraying. (8pp)

FARH D18 64300 C/37 = US 4281-997
Dubbing leather and pelts - with bacterial fermentation by prod. phospholipid modified by emulsification, saponification or sulphonation

HOECHST AG 23.02.79-DE-907065
(D18) (04.08.81) *DE2907-085 C14c-09/02
21.02.80 as 123199 (931HM)

A (dyed) leather or fur skin is greased by treatment with a liq. formulation contg. 1 or more phospholipid at less than b.pt. and at normal pressure by batchwise exhaustion, then acidified. The phospholipid is obtd. by methanol fermentation with *Psuedomonas* bacteria or *methylomonas clara*; then emulsified in water or chemically modified by conversion of the functional gps. present to a water-solubilising form or by introduction of water-solubilising gps. into the phospholipid.

The treated leather remains soft and supple after dry cleaning, does not require any after-greasing, and is esp. used for the mfr. of washable and dry-cleaning-resistant glove and clothing leather. (3pp)

BURG-★ D18 62284 D/34 ★ WP 8102-000
Isolated or breakable chewing-tobacco portions - coated with or distributed in (semi)solid carrier, e.g. starch hydrolysate or chewing-gum material

BURGER SOHNE AG(BURG/) 29.01.80-CH-000707
P15 (06.08.81) A24b-13
28.01.81 as CH0009 (200AT) (E) US1376586 US3693629 DS-527932 US-865026 DS-339133 GB-711187 US3209763 N(DE DK GB JP NL NO SE US) E(DE GB NL SE)

Chewing-tobacco in portions consists of single separate portions or of single portions which can be sepd. from one another by breaking. In each portion, the chewing-tobacco is either (a) coated by a non-toxic solid or semi-solid carrier or (b) distributed, as finely-divided particles, in a carrier.

The portions are pref. packaged, esp. in water-impermeable, aroma-sealing materials, e.g. Al-, plastic- or impregnated paper bags, or in containers or boxes of hard material, eg. cellophane-coated cardboard, metal or plastic.

The portions are non-tacky, easily handled and sepd. and have a clean, appetising appearance. (15pp)

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

WULL/★ D21 60489 D/34 ★ CH -624-010
Plant extracts of solid consistency for cosmetic use - produced by mixing unsatd. fatty acids with extracts and saponifying
WULLSCHLEGER P 23.02.76-CH-002221
(15.07.81) A61k-07/48

23.02.76 as 002221 (903BZ)
Plant extracts of solid consistency for cosmetic use are provided by mixing unsatd. fatty acids with corresp. plant extracts or their mixts. and saponifying the prod. Deodorant and disinfecting agents are pref. added. Suitable plant extracts are camomile, armica or hammamelis. (2pp)

BRIM D21 57517 Y/33 = DS 2704-343
Hair brightening and dyeing compsn. - contains a long chain aliphatic quat. ammonium salt as conditioner for the hair
BRISTOL MYERS CO 09.02.76-US-656503
E16 (13.08.81) *BE-851-134 A61k-07/13

02.02.77 as 704343 (922BZ)
Human hair is dyed or lightened by treating it with a formulation containing water, alkali, an oxidant, opt. an oxidation dye and conventional additives and a quaternary ammonium cpd. of formula

(R1R2R3R4N) + X-
(where R1 is 10-26C aliphatic hydrocarbyl, R2, R3 and R4 are 1-5C alkyl and X is an anion). Use of improves the combability of the hair after the treatment. It is generally incorporated in amounts of 0.05-5 wt.%. DS (8pp)

MACR-★ D21 60773 D/34 ★ EP --33-628
Dental amalgam prod. - contains silver tin and copper spherical and irregular shaped particles for improved creep strength
MACRODENT SA 31.01.80-AR-279815

M26 (12.08.81) A61k-06/04 C22c-05/06 C22c-30/04
27.01.81 as 300345 (994KB) (E) No-Citns. E(AT BE CH DE FR GB IT LILU NL SE)

Prod. for use in dental amalgams contains (by wt.) 24-56% Ag, 20-48% Sn, and 12.5-43% Cu. When the Sn/Cu ratio is 1:1-2.5:1 the Ag/Sn ratio is 0.75:1-1.8:1. When the Sn/Cu ratio is 0.75:1-1:1 the Ag/Sn ratio is 0.75:1-2.5:1. At least some of the particles are of irregular polyhedral shape, formed by mechanical means, and the rest are spheroidal, formed by rapid solidification from the liq. state. At least 80 wt.% of the particles are larger than 4 microns.

The powders produce amalgams with greater creep strength, dimensional stability, corrosion resistance and is more easily handled, due to particles being used which have varying chemical compsn, shape and size. (12pp)

PERM-★ D21 60792 D/34 ★ EP --33-687
Two-pack hair bleaching compsn. - with liq. component contg. hydrogen peroxide and colloidal silica and powder component contg. per salts, alkaline agents, etc.

PERMA 30.01.80-FR-001999
(12.08.81) A61k-07/13
28.01.81 as 400121 (513HM) (F) DE2018762 DS1266283 DE2205463 E(AT BE CH DE FR GB IT LILU NL SE)

compsn. comprising hydrogen peroxide, colloidal silica, per salts, alkali agents, organic additives and/or dyes. The liq. component contains the hydrogen peroxide and the colloidal silica, opt. together with organic additives such as gums or surfactants, and the solid component is comprised of a mixt. of the remaining components in the form of powders of similar particle size and density.

On mixing the two components, a paste is obtd. which can be applied to the hair and which does not dry out too quickly. By incorporating the colloidal silica in the liq. component rather than the powder component as previously, separation of the solid component during transport and storage is prevented. (7pp)

MPPR- ★ D21 D/34 ★ FI 7903-890
Tooth cleaning cloth
M & P PROGRAM 12.12.79-FI-003890
(31.07.81) A61k

SEDE- ★ D21 60812 D/34 ★ FR 2472-384
Phospholipid ubiquinone complex used in cosmetics - obtd. by solvent extn. or from components

SEDERMA 27.12.79-FR-031730
E11 (03.07.81) A61k-07/48 C07c-50/28
27.11.79 as 031730 (597RH)

Cosmetic preps. pref. emulsions, contain the complex pref. in amt. 50-500 micromoles of ubiquinone in complex form per 100g. prod.

The ubiquinone pref. contains an isoprene chain of 8-9 or 10. A particular compsn. is obtained by physical dispersion in water, esp. ultrasonically.

The complex has a restorative effect on the mitochondria and the components probably has a synergistic effect. (5pp)

SEDE- ★ D21 60813 D/34 ★ FR 2472-385
Extracts of natural biological substances used in cosmetology - prepd. by thermo-degradation and molecular filtration

SEDERMA SOC 27.12.79-FR-031731
(03.07.81) A61k-07/48 C07c-103/52
27.12.79 as 031731 (AT)

They contain peptide constituents of M.W. 500-50,000 daltons and are heat resistant up to 80 deg.C are used in cosmetology. They are prepd. by an extraction process which comprises at least one thermodegradation of the starting substance at 37-80 deg.C and at least one sepn. by molecular filtration.

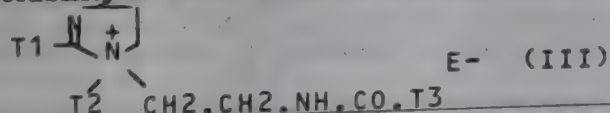
The extracts have cell growth factor properties and activating properties for collagenase and they can replace natural biological liq. presently used. They are better tolerated by the skin and more easily penetrate the epiderm. (7pp)

CIBA D21 40337 A/23 = GB 1595-808
Textile softening and hair rinsing product - mixture of diester amine addition cpd. and quaternary nitrogen cpd.

CIBA GEIGY AG 03.12.76-CH-015255
A60 E16 F06 (E13) (19.08.81) *BE-861-421 D06m-13/34
01.12.77 as 050209 (974AT)

Novel softening agents contain (a) a diester/amine adduct of formula

$Z.NX(A.NX)n.ANXY$
(I), and (b) at least one quat. ammonium salt of formula $N + Q1Q2Q3Q4 E'$ (II) and/or (III). The wt. ratio (a):(b) is 19:1:1:9.
Z is $(CH_2)_s.CHZ'$. $CH_2.Z'$. Z' is COOR1. Each R1 is 12-22C alkyl or alkenyl. s is 0 or 1. n is 0-3. Each A is 2-3C alkylene or 2-hydroxy-n-propylene. Each X is H, 1-4C alkyl, 2-4C hydroxyalkyl, 2-4C hydroxyhaloalkyl or Z. Y is H, 1-4C alkyl or Z. In (a), the ratio Z:N is 1:1 and (I) is in the form of the free base acid salt or quat. ammonium salt. Q1 and T2 are each H, 1-8C alkyl or 2-8C alkenyl. Q2 is as R1 but not H. Q3, T1 and T3 are each 8-30C alkyl or alkenyl. Q4 is alkyl or alkenyl of up to 30C. E- is an anion which give water-solubility or water-dispersibility to the salt. (22pp)



T2 CH2.CH2.NH.CO.T3

PROC D21 70786 A/40 = GB 1596-071
Hair conditioning agent e.g. quat. ammonium salt - applied from flexible support e.g. nonwoven by rubbing

PROCTER & GAMBLE CO 28.03.77-US-781822
E19 P24 (19.08.81) *BE-865-359 A61k-07/06
28.03.78 as 012011 (931BZ)

Hair is conditioned to provide combing, detangling, static fly-away, softness, lustre and manageability. The process comprises rubbing the hair with a flexible substrate contg. 0.2-15 g per sq.m of a normally solid water-insoluble hair conditioning agent releasably associated with it.

The agent comprises an opt. mixt. of a quat. ammonium salt, quat. imidazolium salt, fatty alcohol, sorbitan ester, polyhydric alcohol, fatty acid salt and/or aliphatic ether. The rubbing

action causes the transfer of an effective amt. of agent to the hair.

The substrate used comprises paper, woven- or non-woven cloth, and has size 7 x 10 cms - 50 x 80 cms. The hair is opt. wetted prior to rubbing. (10pp)

MINN D21 55451 A/31 = GB 1596-241
Liq. two/part acrylic tooth filling compsn. - contg. filler to render it visible on the surface of the teeth

MINNESOTA MINING CO 21.01.77-US-761116
A96 (A14) (19.08.81) *DE2803-016 + A61k-06/08
20.01.78 as 002425 (945DJ)

Fluid compsn. comprises (1) liq. resin system polymerisable to solid polymer having glass transition temp. above the normal temp. range of the mouth, (2) 0.1-5wt.% finely divided hydrophobic opaquin filler and (3) 1-10wt.% hydrophobic suspending agent.

Opt. a free radical generating catalyst (I) for (1) is present together with an accelerator (II) reactive with it. The compsn. may be divided into two parts, the first contg. (I) and the second (II), both parts contg. (1)-(3). Suitably (1) comprises acrylic monomer, specifically a mixt. of Bis-GMA and dimethacrylate monomers.

Compsn. is used for sealing pits and fissures in tooth surfaces. It is sufficiently fluid for fast application, sufficiently opaque to be discernible on tooth surfaces and sufficiently shelf stable at low viscosity. (5pp)

LION- ★ D21 60881 D/34 ★ GB 2068-730
Oral compsns., e.g. dentifrices, contg. dextranase - contain L-menthol-carvone mixt. to stabilise compsn. and improve feel

LION CORP 06.02.80-JP-013317
E15 (D16) (19.08.81) A61k-07/28
30.01.81 as 002819 (985AS)

Oral compsns. contg. dextranase also contain carvone and 1-menthol in wt. ratio 1:9-8:2, pref. 2:8-7:3. Pref. the amt. of carvone plus 1-menthol is 0.1-5 (esp. 0.3-3) wt.% based on total wt. of compsn. Anethole (at 0.01-5 wt.% on wt. of compsn.) and flavourings selected from eugenol, methyl salicylate, cinnamic aldehyde may also be present. Pref. the compsns. contain 100-100000 units dextranase per g.

The compsns. have pleasant mouth-feel and are stable. Dextranase is an active ingredient in oral compsn. for caries prophylaxis to prevent formation of plaque. The carvone-1-menthol mixt. provides optimum degree of refrigerant, body and pungency to the compsn. (7pp)

SAKA/ ★ D21 61108 D/34 ★ J5 6081-512
Cosmetic material - prepd. by rendering surface of porous globular granules lyophobic

SAKATA K 06.12.79-JP-158295
(03.07.81) A61k-07
06.12.79 as 158295 (5PW)

Cosmetic material contains substance which is prepared by treating porous globular granules of particle size 0.5-20 micron to make their surface lyophilic. As porous globular granules silica gel, rice starch, etc. can be used and they are made lyophilic either by esterifying with higher fatty acid ester, higher alcohol, etc. or alkyl-etherising them with alkylsilylating agent, etc.. They can be made lyophilic by immersing silica gel or rice starch in ethanol and shaking the mixture for an hour.

The cosmetic material itself shows much better spreading property than kaolin, talc, etc. and showing strong adsorbability for water, can hold perfume for long time. It is nontoxic and being white, can be combined freely in cosmetics of various colours. By combining the cosmetic material in cosmetics such as cream, face powder, lip stick, etc. cosmetics of excellent spreading property, adhesive property and perfume-holding property can be obtd. (3pp)

FREG- ★ D21 61109 D/34 ★ J5 6081-513
Skin foundation cosmetic - contg. substance obtd. by freeze-drying coconut oil lees, pulverising and hydrating with soln. contg. copper chlorophyll sodium salt

FRANCE E & G KK 06.12.79-JP-158460
E12 (03.07.81) A61k-07
06.12.79 as 158460 (5PW)

Skin cosmetic is contain substance which is obtd by (a) freeze-drying coconut oil lees, (b) pulverising it to the powder of below 40 mesh and (c) hydrating it with the soln obtained by dissolving copper chlorophyllsodium salt in water-ethanol mixt. The hydration is completed in 24-48 hours with stirring and the hydrated product is further aged in dark cold room for one or two weeks.

The cosmetic prevents metabolism of skin, moistens skin and gives good foundation effect. When the cosmetic is spread on face and if necessary after steaming, and washed out, the face skin is

cleaned up, deodorised and moistened and has refreshing feel. (2pp)

KANE- ★ D21 61114 D/34 ★ J5 6081-522
Topically administrable compsn. for diagnosing skin characteristics - obtd. by dissolving styryl analogue in hydrocarbon, oil, fat or ester

KANEBO KESHO-HIN KK(NIKA-) 07.12.79-JP-159436

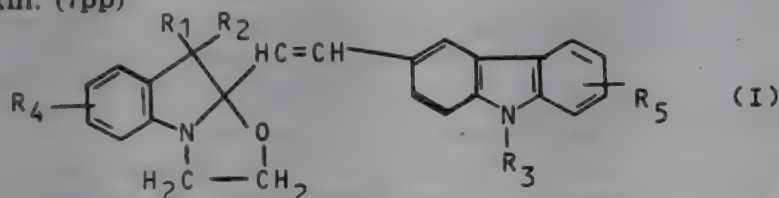
E13 (03.07.81) A61k-49

07.12.79 as 159436 (5PW)

Comps is prepared by dissolving styryl analogue(s) (I) oily substance(s) selected from hydrocarbon, oil fat or carboxylic acid neutral ester.

In the formula R1 and R2 are each alkyl, hydroxyalkyl or alkoxyalkyl R3 is H or alkyl, R4 and R5 are each H alkyl, alkoxy, alkylamino, dialkylamino, acylamino, nitro, halogen or condensed ring.

Compsn is used for diagnosing the state of skin by spreading it on skin detection colour change of the external drug caused from the reaction between the (I) and sebum. Thus one can easily know one's skin state and can select the cosmetic which is suitable to one's skin. (7pp)



SANN ★ D21 61342 D/34 ★ J5 6082-897
Shampoo compsn. - comprising mixt. of specified anionic and nonionic surfactants

SANYO CHEM IND LTD 11.12.79-JP-161286

A96 E12 (E16) (06.07.81) A61k-07/06 C11d-01/83

11.12.79 as 161286 (126RH)

Shampoo compsn. contains 4-40 wt.% anionic surface agent of formula R1CONHCH2-CHR2-O-(AO)n -CO-CH2-CH(SO3M1)-COOM2 (I) (where R1 is 9-15C alkyl; R2 is H or methyl; AO is 2-3C oxyalkylene; n is 0-20; M1 and M2 are H ion, alkali metal ion, ammonium ion, hydroxyalkyl ammonium ion), and 1-10 wt.% nonionic surface active agent of formula R3CONHCH2-CHR4-O-(AO')mH (II) (where R3 is 9-15C alkyl; R4 is H or methyl; AO' is 2-3C oxyalkylene; m is 0-20), exhibiting pH 4-7 of the compsn. system.

Pref. (II) is reaction prod. obtd. by reacting a lower alcohol ester of a higher fatty acid with equimolecular amt. of alkanolamine in the presence of an alkali metal catalyst, removing the excess alkanolamine, and reacting further the residue with alkylene oxide at 60-100 deg.C. Pref. (I) is a salt of a monoester which is a reaction prod. described above with sulphosuccinic acid. Shampoo has high lathering effect. It is Very mild to the skin and mucous membrane. (6pp)

SANN ★ D21 61343 D/34 ★ J5 6082-898
Low irritation shampoo compsn. - contg. anionic surfactant and amphoteric surfactant

SANYO CHEM IND LTD 11.12.79-JP-161285

A96 E12 (E16) (06.07.81) A61k-07/06 C11d-01/84

11.12.79 as 161285 (126HM)

Low irritation shampoo compsn. contains 2-40 wt.% anionic surfactant of formula

R1CONHCH2-CR2HO(AO)n-CO-CH-CH(SO3M1)(CO2M2) (I)

(where R1 is 9-15 average C alkyl; R2 is H or methyl; AO is 2-3C oxyalkylene; n is an integer 0-20; M1 and M2 are H, alkali metal, ammonium, or hydroxyalkyl ammonium), and 2-40 wt.% amphoteric surfactant of formula

R3CONH(CH2)mN + R4R5CH2COO- (II)

(where R3 is 9-15 average C alkyl, R4 and R5 are (m)ethyl; m is 2 or 3).

The compsn. pref. has total amt. of (I) and (II) at least 3 wt.%. Pref. (I) is a monoester salt of sulphosuccinic acid and reaction prod. obtd. by reacting alkylene oxide at 60-100 deg.C with a prod. obtd. by reacting over equimolecular amt. of alkanolamine with a lower alcohol ester of a higher fatty acid in the presence of an alkali metal catalyst after removing excess alkanolamine from the reaction prod.

The shampoo compsn. has all necessary characteristics for shampoo. It is satisfactorily stable at low temp., and has very mild effect on the skin and the mucous membrane of eyes. (5pp)

SHIS ★ D21 61360 D/34 ★ J5 6083-414
Hair cosmetic - contains polyether cpds., obtd. by addn. polymerising propylene oxide

SHISEIDO KK 13.12.79-JP-161975

A97 (08.07.81) A61k-07/06

13.12.79 as 161975 (5PW)

Hair cosmetic is contains at least one polyether selected from (a) the polyether compounds which are prepd by addition-polymerising 20-100 (40-80) ml of propyleneoxide to tri- or higher polyglycerine and (b) polyether compounds which are prepd by addition-polymerising 40-120 ml of propyleneoxide and 1-20 (3-10)ml of ethyleneoxide to tri- or higher polyglycerin.

The polyether compound can be prepared, e.g. by mixing granular caustic soda with the polyglycerin having above five hydroxyl groups, in nitrogen gas, adding propyleneoxide slowly to mixt at 100-120 deg C under internal pressure of 5-7 kg/cm2 and if necessary, adding ethyleneoxide in the mixt.

Pref the polyether compound is used in amt of 5-50% in hair cosmetic. The polyether compound gives proper hair-setting property due to its lyophilic property, is not sticky, shows good affinity to hair, is little corroded with celluloid, can be easily washed out and is at low stimulation and little toxicity (5pp)

FUSO ★ D21 61361 D/34 ★ J5 6083-415
Dentifrice for stiffening gingiva and treating pyorrhoea contains salt and sodium malate to reduce saltiness

FUSO KAGAKU KOGYOK 10.12.79-JP-159972

E12 (08.07.81) A61k-07/16

10.12.79 as 159972 (5WB)

Dentifrice having reduced saltiness is prepd by using salt 8-10 w/w%, esp 9 w/w% and sodium malate 0.5-5 w/w% esp 1-2 w/w% in the basic dentifrice compsn.

Addn of Na malate does not reduce effectiveness of dentifrice (2pp)

LIOY ★ D21 61362 D/34 ★ J5 6083-416
Oral compsn. for dental hygiene - contains plant extract(s), e.g. Ginkgo biloba L, Anethum graveolens L, etc.

LION DENTIFRICE KK 11.12.79-JP-160499

B04 (08.07.81) A61k-07/16

11.12.70 as 160499 (5WB)

Compsn contains at least one extract obtd by extracting plant selected from (a) Ginkgo biloba L leaves, (b) Anethum graveolens L seed (c) unripe fruits or Piper cubeba L., (d) rhizome of Nardostachys jatamansi DC or Nardostachys chinensis Betalin, (e) rhizome of Zingiber officinale Roscoe, (f) rhizome and root of Asiasarum sieboldi F. Maekawa or A heterotopoides F. Maekawa var mandshuricum F. Meakawa, (g) root of Bupleurum falcatum L., (h) Malva silvestris L leaves (i) core of trunk and root of Caesalpinia sappan L., (j) fruits of Terminalia chabrala Rety and (k) Eugenia caryophyllata Thunb. buds, with organic solvent.

The extract is used in tooth paste, tooth powder, mouth wash, troche, pasta, ointment, etc and suppresses acid formation by Streptococcus mutans, etc. (a) or (b) are used in amt 0.002-5%, es 0.002-2% and (c), (d), (e), (f), (g), (h), (i), (j) or (k) are used in amt combined 0.002-5%. (6pp)

OGAW/ D21 11580 A/06 = J8 1032-28
Cosmetic e.g. for skin lotion, hair tonic or lipstick - contains the aq. or organic solvent extract of coix lacryma-jobi

OGAWA Y 21.06.76-JP-072994

(27.07.81) *J52156-936 A61k-07

21.06.76 as 072994 (173HM)

Cosmetics contain, as the medicament, the water or organic solvent extract of the seed and/or root of Coix Lacryma-Jobi.

In an example, 1 pt. wt. of Coix Lacryma-Jobi seed were ground and extracted with 5 pts. wt. of ethanol. The ethanol soln was treated physically and chemically to remove colour, impurities, proteins, tannin, etc. and then evapd. to obtain 0.02-0.05 pts. wt. of the extract. 2.5 Pts. wt. of the extract was mixed with 60 pts. wt. of ethanol, 5.0 pts. wt. of glycerol, 0.4 pts. wt. of surfactant, 22.0 pts. wt. of water and 0.1 pt. wt. of perfume to prepare a hair tonic compsn.

The extract of Coix-Lacryma-Jobi promotes metabolism of skin, hair, etc. It also protects the tissue from UV radiation (J52156936) (4pp)

SHIS D21 65168 V/37 = J8 1032-2
Fingernail enamel fading prevention - by adding dialkyl sulphosuccinate and its derivs

SHISEIDO KK (SHIF) 17.05.72-JP-048701

A82 E17 G02 (A96) (27.07.81) *J49012-045 + A61k-07/04

17.05.72 as 048701 (AT)

Fading of fingernail enamels contg. rhodamine B or its derivs

singly or in combinations, pref. 0.6-2%.

In an example, Et acetate 5, Bu acetate 28, EtOH 1.5, PhMe 32, rhodamine B 0.001, pearly luster-forming agent 2, TiO₂ 0.5, gelling agent 4, and org. pigment 0.1 wt. pt. are mixed with a mixt. consisting of nitrocellulose 12, resin 13, and dibutyl phthalate 6 wt. pts. Then 0.6-2% Na bis(2-ethylhexyl) sulphosuccinate is added to obtain an enamel for fingernails.

The colour of the enamel is long-lasting without fading. (J48012045) (4pp)

SHIS D21 05673 A/03 = J8 1032-284
Gel compsn. for nail enamel use - material formed from organic-modified montmorillonite, (non)polar organic solvent, plasticiser and nitrocellulose, dispersed in solvent

SHISEIDO KK 28.05.76-JP-062020

A96 G02 (27.07.81) *J52145-528 A61k-07/04

28.05.76 as 062020 (5HM)

By dispersing 10-30% chip obtd. by heat-pressing and kneading a mixt. of (a) organic modified montmorillonite 25-70%, (b) (non) polar organic solvent 25-70%, (c) plasticiser 5-35% and (d) nitrocellulose 5-70%, in 90-70% of the mixed (non)polar organic solvent, and mixing it to swell the chip compsn.

Organic modified montmorillonite is obtd. by bonding cationic active agent and nonionic higher organic polar cpd. chemically to bentonite or montmorillonite. The clay stabilises the chip compsn. which can then be handled easily. (J52145528) (4pp)

MATM D21 15720 C/09 = J8 1032-285
Nail lacquer giving hard, flexible, water resistant film - comprises crosslinkable polymer, e.g. a nitrocellulose and an organo metallic cpd., e.g. aluminium ethoxide

MATSUMOTO SEIYAKU KOGYO 06.07.78-JP-082253

A96 E12 G02 (27.07.81) *J55009-042 A61k-07/04

06.07.78 as 082253 (22AS)

The compsn. comprises a polymer substrate contg. functional group which can crosslink by condensn., and an organic metal cpd. which can cause a condensn. reaction with the polymer.

The polymer includes nitrocellulose contg. hydroxy, carboxyl, amide, ester, ether, amino groups, etc. The metal cpd. includes Gp. III or IV metal cpds. having alkoxy, acyl or chelating group. Typical examples of the metal cpd. are aluminium triethoxide, aluminium triisopropoxide, aluminium triethoxide, etc. The compsn. also contains a solvent such as alcohol, ethylene glycol, aromatic hydrocarbon, ketone, etc. (J55009042) (4pp)

KAOS D21 74356 Y/42 = J8 1032-286
Transparent aq. hair rinsing compsn. - contg. quat. ammonium salt, nonionic surfactant, polyoxyethylene alk(en)yl or alkyl-phenyl ether and solvent

KAOSOAP KK 29.03.76-JP-034764

A96 E19 (A25) (27.07.81) *DE2710-468 A61k-07/08

29.03.76 as 034764 (200RP)

Transparent liq. hair rinsing compsn. consists of 4 cpds. (A), (B), (C) and (D). (A) consists of 0.1-10 (1-5) wt.% quat. ammonium salt(s) of formula (R₁R₂R₃R₄N)+X- (where R₁₋₄ are (hydroxy)alkyl or benzyl, provided that 1 or 2 of them are 8-20C long-chained (hydroxy)alkyl whereas the rest are 1-3C (hydroxy)alkyl or benzyl and X is halogen or 1-2C alkyl sulphate).

(B) consists of 0.1-10 (1-5+ wt.% nonionic surfactant polyoxyethylene alk(en)yl ether and/or polyoxyethylene alkyl phenyl ether of formula R₅R₆CH₂O-(CH₂CH₂O)_n-H and/or p-R₇-C₆H₄O-(CH₂CH₂O)_n-H resp. (where R₅ is 7-10C alk(en)yl; R₆ is H or 1-10C alk(en)yl; the total C in R₅ + R₆ is 7-19; R₇ is 6-12C alkyl; n = 1-7, and content of cpd. in which n = 0 is up to 3%, calculated on total wt. of (B)). (C) is 5-30 (10-20) wt.% solvent and (D) is water.

The compsn. imparts good softness, fullness and hand. (J52117442) (8pp)

BONN/ ★ D21 61622 D/34 ★ NL 8000-085
Antiperspirant compsn. for skin application - comprising lanolin, zinc oil, hydrogen peroxide, betonica officinalis, eucalyptus oil, etc.

BONN L 08.01.80-NL-000085

(03.08.81) A61k-07/32

08.01.80 as 000085 (513KB)

Skin conditioning agents for protection against excessive sweating and perspiration odour are comprised of one or more active agents chosen from H₂O₂, zinc oil, lanolin, betonica officinalis, eucalyptus oil and chopped straw, together with usual additives.

Pref. compsn. comprises 40-80 pts. vol. lanolin, 15-45 pts. zinc oil and 10-20 pts. vol. 6% H₂O₂, opt. with the addn. of an extract of betonica officinalis and/or 1-2 wt.% eucalyptus oil and/or ca. 2 wt.% chopped straw.

The compsns. can e.g. be applied by spraying under the armpits to provide good anti-perspirant effect. (5pp)

NAPO- ★

D21

D/34 ★ RO -99-100

Dental methyl methacrylate suspension (co polymer prodn. - using bulk- and emulsion- methacrylic acid-methyl methacrylate copolymer mixt. as suspension stabiliser)

NAPOCHIM INTR CHIM 18.06.77-RO-090717

A96 (A14) (23.07.80) C08f-220/10

PERD-

D21

51165 W/31 = US 4281-901

Plastics-filler dental material - contg. microfine inorg. filler for better strength, polishability and appearance

PERDENT GMBH (DENT) 23.01.74-DE-403211

A96 (04.08.81) *DE2403-211 + A61k-06/08

20.07.78 as 926398 (+ 23.1.75-US-543532) (931HM)

Dental prosthesis comprises a monomeric binding material; and a micro-fine inorganic filler in admixture with 1 or more bead or chip polymer. The binding material comprises long chain monomer esters of bisphenol A and glycidyl methacrylates, adducts or diisocyanates and hydroxymethacrylates, difunctional esters of acrylic and methacrylic acids, or their mixts. The filler is present in amt. 50-90 wt.% and has a particle size 10-400 nms. and BET surface area less than 200 sq.m. per g, such that 50% or more of the particles of size 10-40 nms. The bead or chip polymer comprises PVC, polystyrene or their copolymers, polymeric acrylates or polymer methacrylates.

The prod. is a hardened compsn. having clear opalescence, resistance to abrasion and is capable of being polished. (5pp)

KAOS

D21

06033 C/04 = US 4282-110

Soap contg. tri:chloro-hydroxy-di:phenyl ether antibacterial - and phosphorus oxyacid or alkyl-phosphate to prevent discolouration

KAOSOAP KK 22.12.78-JP-159628

A96 E19 (04.08.81) *GB2025-451 C11d-09/14

13.11.79 as 093522 (931HM)

Antibacterial soap comprises 0.05-5 wt.% of 2,4,4'-trichloro-2'-hydroxy diphenylether and 0.01-10 wt.% of 1 or more discolour, preventing agent comprising an inorganic phosphorous oxyacid or its salt.

Pref. the oxyacid is e.g. orthophosphoric-, pyrophosphoric- or triphosphoric acid, and the salt is a prim. phosphate salt of an alkali metal or ammonium.

The soap prepd. may be exposed to direct sunlight for 5 days with no colour formation developing or cracking. (3pp)

OREA

D21

35055 C/20 = US 4282-203

Copolymers based on vinyl acetate and unsatd. acid - useful as resin components in cosmetics, esp. for hair (BE 24.4.80)

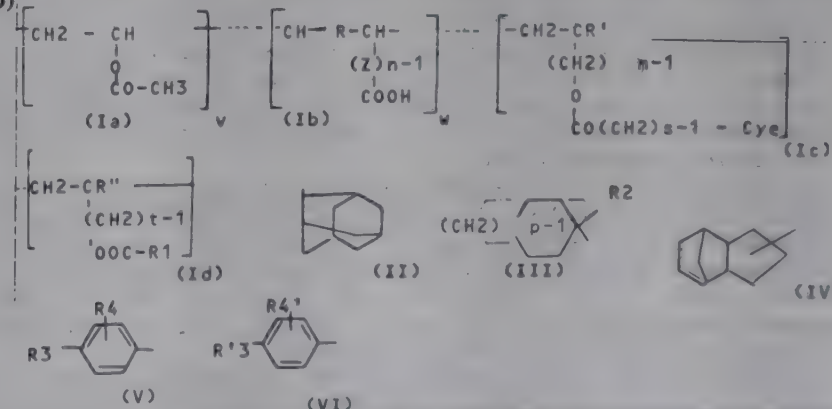
L'OREAL SA 27.10.78-FR-030596

A14 (A97) (04.08.81) *DE2943-425 A61k-07/11

16.10.79 as 085398 (963WB)

Cosmetic for treating hair comprises a vehicle and at least 1 polymer of formula Ia-Id where m, n, s and x are 1 or 2; R, R' and R are H or CH₃; Z is CH₂, CH₂OCH₂, or CH₂O-(CH₂)₂; R₁ is 2-21C alkyl or alkenyl; when s is 1, Cyc is opt. unsatd. mono or polycyclic gp. from (II), (III), (IV) and (V), R₂ is H or CH₃; p is 1 or 2; R₃ is H, CH₃, C₂H₅, tert butyl, C₂H₅O, C₄H₉O, or C₁₂H₂₅O; R₄ is H, 1-4C alkyl or 1-4C alkoxy; when s is 2, Cyc is a gp. (VI), R'₃ and R'₄ being as for R₃ and R₄. v is 10-91 wt.%; w is 3-20 wt.%; x is 4-60 wt.% and y is 0.40 wt.%, v + w + x + y being 100 wt.%.
Used as hair lacquer without causing pellicules or powdering.

(8pp)



ASPR

D21

71825 B/40 = US 4282-204

Inhibition of dental caries with cationic polysaccharide - which binds to cariogenic bacteria, formulated as mouth-wash, tooth-paste, ointment etc.

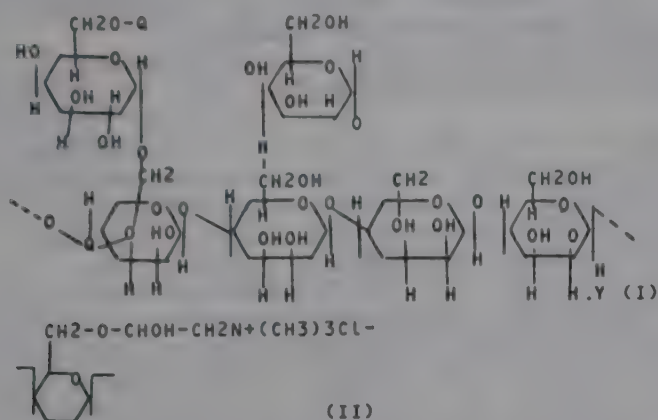
NICHOLAS PTY LTD 31.05.78-GB-025870

A96 B04 (A11) (04.08.81) *BE-876-639 A61k-07/16 A61k-31/70

30.05.79 as 043628 (963AT)

Method of inhibiting dental caries comprises admin. to teeth of a non-toxic polysaccharide selected from DEAE-cellulose, the quat. ammonium deriv. of guar gum having repeat unit of formula (I) where Q is quat. ammonium gp., and cationic maize starch having degree of substit. of 0.034-0.042 of formula (II) in a

dental caries inhibiting amt. of at least 0.1 w/v.% of mouth liq. (12pp)



INFL ★ D21 62174 D/34 ★ US 4282-205
Augmenting the taste of tooth pastes - by addn. of 2,4,6-trimethyl-cyclohexyl-methanol

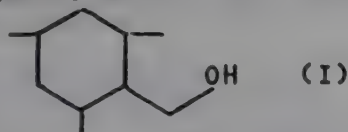
INT FLAVORS & FRAGR INC 20.11.80-US-208508 (20.10.78-US-953128)

B05 E15 (B07 D12 D23) (04.08.81) A61k-07/16

20.11.80 as 208508 C.I.p.4195099 (+ 5.10.79-US-082076) (1248BZ)

Augmenting or enhancing of the taste of toothpaste is achieved by addn. of 0.05-500 ppm 2,4,6-trimethylcyclohexyl methanol of formula (I).

Cpd. (I) has a minty, herbaceous, fruity, floral and fresh aroma characteristic with sweet, minty and herbaceous glavour characteristics at 2ppm, so that it is useful in mint, spearmint and oral hygiene type flavours. It is therefore useful in toothpastes, and it may also be used in foodstuffs, chewing medicinal prods. perery prods. and smoking tobaccos (see US4195099). (14pp)



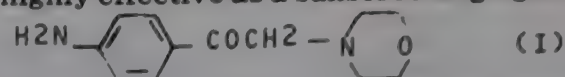
WEST. ★ D21 62175 D/34 ★ US 4282-206
1-(4-Amino-phenyl)-2-morpholinyl-ethane:one - in compans. for protecting skin against ultraviolet radiation

WESTWOOD PHARM INC 15.11.79-US-094419

E13 (04.08.81) A61k-07/42

15.11.79 as 094419 (478AT)

Human skin is protected against UV radiation by applicn. of a compsn. contg. the p-aminophenyl deriv. (I) and a suitable vehicle. (I) is highly effective as a sunscreening agent. (6pp)



POWE/ ★ D21 62287 D/34 ★ WP 8102-102
Denture decalcifying and cleansing - by applying malic, (meso)tartaric or esp. citric acid pref. combined with sodium bicarbonate

POWELL F 21.01.80-AU-002074

E17 (06.08.81) A61k-07/30 C11d-07/10

14.01.81 as AU0005 (200HM) (E) GB1374105 GB1527010 GB1492660 GB1492688 DE1617430 CH-536113 CH-535049 AU--14247 AU--39296 AU--12923 AU--51560 AU--20653 AU--35702 AU--21264 AU--36965 AU--16878 CA1069826 CA1083048 US1488315 US4105756 US4130635 US4151271 US3962417 US3937806 US3652420 US4115293 N(AU JP US) E(DE FR GB NL SE)

Calcium deposits are removed from artificial dentures and other substrates by applying malic-, tartaric-, meso-tartaric- or citric acid. Citric acid is prefd. The acid can be combined with NaHCO₃. NaHCO₃ promotes effervescence and reacts with the acid to release CO₂ which helps to free trapped food particles. A pref. compsn. contains, by wt., 75-95 (80) % citric acid and 5-25 (15) % NaHCO₃. On using hydrous citric acid, the compsns. require drying. This is overcome by using anhydrous citric acid. The compsns. can be used as tablets. Colouring components and aromatics may be added.

The hydroxyacids have high decalcifying and cleansing activity and react with both CaO or lime and CaCO₃. Cleansing can be carried out only once a week. (11pp)

See Also

D13 EP 33694
 D25 J5 6082896

D13 WP 8102106

D25 J5 6082895

D22: BANDAGES; DRESSINGS

MOMM/ ★ D22 60456 D/34 ★ BE -888-237
Suppressing ammoniacal odour from animal excrement - by contact with mono-or polybasic acids or salts and an absorbent filler

MOMMER R P 02.04.80-US-136553

E36 P14 P34 (31.07.81) A01k A61I

01.04.81 as 888237 (513RH)

In a process for suppressing and limiting the ammoniacal odour of organic waste, esp. animal and human excrement, the waste material is contacted uniformly with an anti-ammoniacal agent comprising (a) monobasic salts or dibasic acids, monobasic or dibasic salts of tribasic acids, etc., mono-, di- or tribasic acids, etc., with a dissociation constant pK_a of less than the corresp. dissociation constant of the aq. ammonia, and (b) a sufficient amt. of an absorbent filler.

(a) is e.g. oxyacids of sulphur or phosphorus, monobasic alkali metal salts of oxyacids of sulphur, dibasic salts of oxyacids of phosphorus and alkaline earth dibasic salts of oxyacids or sulphur and phosphorus, or organic acids such as acetic acid, formic acid, EDTA, citric acid, etc. (b) is e.g. straw, sawdust, ground peanut shells, rice husks, alfalfa, diatomaceous earth, calcium sulphate and silicious materials.

The materials can be applied in liq. or granular form, e.g. to suppress unpleasant odour formation in pigstys, animal cages, zoos, etc. (20pp)

DAVI/ ★ D22 D/34 ★ BR 8101-534
Sterilising receptacle for feeding bottle

DA COSTA DAVID J A 16.03.81-BR-001534

P34 (28.07.81) A61I-02/18

DUSS- ★ D22 60490 D/34 ★ CH -624-012
Lavatory door handle steriliser - directs ultraviolet radiation on possible sources of infection on the handle

DUSSY & CO 20.09.77-CH-011527

Handles of doors in public lavatories and in hospitals present a constant risk of infection. This can be remedied by mounting on the wall close to the handle an ultraviolet radiation source. The two areas from which the radiation is emitted are arranged at an angle so that they focus a beam against the handle surfaces. In another version, the ultraviolet steriliser is built into the handle itself, which is hollow and partly made of a transparent material.

This is an effective way of eliminating this possible source of infection. (4pp)

DESO- ★ D22 60598 D/34 ★ DE 3004-234
Tree wound-sealing and-protecting agents - contg. N-nitroso-n-cyclohexyl-nitrosamine or n cyclohexyl-diazonium:di:oxy salts

DESOWAG-BAYER HOLZS 06.02.80-DE-004234

C03 E15 (13.08.81) A01n-03/04

06.02.80 as 004234 (280AT)

New wound-treating, wound-sealing and wound-protecting agents for trees contain at least one salt of N-nitroso-N-cyclohexyl- hydroxylamine (I) or an (N-cyclohexyl-diazoniumdioxo) cpd. (II) of a mono-, di- or trivalent metal (esp. of aluminium).

Pref. agents contain 0.5-7 (esp. 2-4) wt.% of a salt of (I) or of a cpd. (II). The agents are advantageously in the form of an emulsion, dispersion, solution or paste contg. water and/or an organic solvent or solvent mixt. They pref. contain a polymer or polymer resin and/or a softening agent and/or a drying oil, and may contain additional ingredients such as dyes, insecticides, fungicides etc.

Agents contg. a salt of (I) or a cpd. (II) promote the formation of new bark over wounds. While suitable for use on broadleaved trees, they are particularly effective on conifers, e.g. firs. (17pp)

STFI-★ D22 80619 D/34 ★DE 3004-435
Wet hose bio-filter - where aq. wash liq. contg. microorganisms sprays filter hoses used for purificn. of odorous gases arising from sewage etc.

STANDARD FILTERBAU 07.02.80-DE-004435
(D15) (13.08.81) B01d-45/10 B01d-47/02
07.02.80 as 004435 (1144KB)

A filter vessel contains vertical hoses, which are sprayed in their bores with a descending stream of wash liq. contg. microorganisms, e.g. in the form of activated sludge. Gases to be purified flow horizontally through hoses from the bores of the latter. The microorganisms pref. consist of a biological concentrate designed to decompose odorous substances in the gas; and enzymes may be added to the wash liq.; located in the threads forming the hoses; or used to impregnate the hoses, to increase the activity of the microorganisms.

A gas cleaner is pref. located upstream of the wet hose filter to remove most of the solids in the gas; and two or more wet hose filters contg. different microorganisms may be used in series to purify gases. Used esp. for deodorising waste gas from sewage drying plants, abattoirs, etc. (11pp)

ROMA-★ D22 80672 D/34 ★DE 3023-245
Improving wood preservative absorption in timber impregnation - by perforating the timber with small holes using a laser beam

SOCROMANDE IMPREGN 07.02.80-CH-000980
C03 F09 P63 (13.08.81) B27k-03/02
21.06.80 as 023245 (280RH)

In a new process for the treatment of wood in order to introduce perforations to improve uptake during impregnation with wood preservatives, the perforations are produced by using at least one laser beam. Used for impregnation of wood with agents such as fungicides, algicides, rotproofing agents, insecticides or flameproofing agents. The process is simple to carry out, does not damage the wood, and gives sufficient perforation to provide for good impregnation with preservative.

Pref. the timber to be treated is passed under the laser along the direction of its fibres, and a salvo of laser beams is fired so that the timber is perforated with a row of slots parallel to the direction of its fibres. Advantageously several parallel rows of perforations are cut in this way, the perforations in one row being slightly offset from those in the next row. Typically, each perforation is 0.1-1 mm across, and rows of perforations can be as little as 3 mm apart so that the number of perforations can be as many as 8000 or more per square metre. (8pp)

FULH D22 02418 Y/02 = DS 2628-890
Sanitary towel with components held by pressure sensitive adhesive - of polystyrene and polyethylenebutylene ABA or teleblock copolymer (BE241276)

FULLER H B CO 27.06.75-US-590936
A96 P21 P32 + P34 (A18) (13.08.81) *DE2628-890 A41b-13/02
A61f-13/16 B01j-20/28
26.06.76 as 628890 (481BZ)

Mouldings for absorbing liqs., esp. sanitary towels, comprise an elongated absorbing lining having two main surfaces (I), an outer layer (II) in adhesive contact with at least one of (I), a self-adhesive (press.-sensitive) melt-adhesive layer (III) which adheres on to the externally -facing surface of (II), and a sheet-form removable separation -protective coating which covers (III).

(III) comprises a mixt. of (i) 10-30 wt.% of a rubber-type three block A-B-A block copolymer, in which the blocks A comprise polystyrene and block B comprises a rubber-type ethylene/butylene polymer, or a teleblock copolymer of mols. having at least 3 branches directed radially from a central nucleus, each branch having polystyrene end blocks and a rubber-type polybutadiene central block; (ii) 15 to less than 40 wt.% of a naphthene oil having an initial b.pt. of above 200 deg.C., paraffin oil, or a mixt. of these; and (iii) 40-65 wt.% of an adhesive-rendering resin. DS (7pp)

MONS D22 37537 B/20 = EP G001-909
1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - by one-step dehydrohalogenation-rearrangement hydrogenation of 1,1-bis-(4-hydroxy-aryl)-2-halo ethane cpds.

MONSANTO CO 31.10.77-US-846754
A41 E14 H06 (A60 H07) (12.08.81) *EP---1-909 C07c-37 C07c-39/16 C07c-43/30 C07c-67/08 C07c-69/16
27.10.78 as 300559 (945BZ) (E) US3624162 E(BE DE FR GB NL)
One-step dehydrohalogenation-rearrangement-hydrogenation of 1,1-bis(4-hydroxyaryl)-2-haloethanes (I) to yield the corresp. 1,2-bis(4-hydroxyaryl)ethane (II) is effected by contacting (I), in aliphatic carboxylic acid solvent contg. carboxylic acid salt, with hydrogen gas and a hydrogenation catalyst.
Pref. (I) is 1,1-bis(4-hydroxyphenyl)-2-chloroethane. (II) is opt. treated with acylating agent, e.g. acetic acid, to yield the 1,2-

(II) are useful as bactericides, intermediates, monomers, and antioxidants. They are stabilisers for fats, oils, gasoline, lubricants, polyolefins and rubbers and are used for resin prepn. (12pp)

GREC D22 11125 C/06 #EP --33-402
Perfusate for preserving organs to be transplanted - comprising a modified Ringer's soln., albumin, perfluorocarbon cpd. and emulsifier

GREEN CROSS CORP 10.10.78-US-950071 (25.01.80-EP-300245)

A96 + P31 (12.08.81) *US4186-253 + A01n-01
25.01.80 as 300245 (DJ) (E) US3962439 DE2630586 US3843455
US4186253 E(AT BE CH DE FR GB IT LU NL SE)

A liq. for the perfusional preservation of an organ for transplantation comprises a modified Ringer's soln. contg. 8-20 mequiv/l K ions and dissolved albumin, an emulsified liq. perfluorocarbon cpd. and an emulsifier.

The use of, e.g. perfluorodecalin, perfluoro(butyl(butylcyclohexane), perfluoro(hexyl-tetrahydrofuran), perfluoro(diethyl-hexylamine), perfluoro(N-pentyl-morpholine), perfluoro(N-hexyl-piperidine), or perfluoro(tetramethylene g glycol diisopropyl ether) as the perfluorocarbon cpd., and a polyoxyethylene-polyoxypropylene copolymer, polyoxyethylene alkyl ether, polyoxyalkyl allyl ether or phospholipid as the emulsifier is claimed. (8pp)

DEPH-★ D22 80705 D/34 ★EP --33-448
Foot protection e.g. an insole, disposable slipper or floor mat - consisting of absorbent paper fleece impregnated or imprinted with bactericides and/or fungicides

DEPHARMA AG 03.07.80-CH-005114 (18.01.80-AT-000251)

C03 P22 P27 (12.08.81) A43b-17/10 A47g-27/02 D21h-05/22
15.01.81 as 100248 (280AT) (G) DE2801636 DE2813421 DE2838523
FR-484695 DE--87825 FR2277540 DE2526022 US1926283 FR1016871
US3417494 FR1041898 DE2410667 DE-820708 FR1371640 E(AT BE CH DE FR GB IT LI LU NL SE)

New foot protection (e.g. in the form of an insole, a disposable slipper or a floor mat) consists of an absorbent and, pref., moisture-resistant paper fleece impregnated or imprinted with known bactericides and/or fungicides as well as, opt., air-freshening and/or deodorant active substances.

The active substance is pref. used in an amt. of ca 20-200 mg (esp. ca 50-100mg) per sq. m. of paper fleece, and is pref. incorporated into the fleece by impregnation (advantageously in admixt. with essential oils) or by imprinting (advantageously in admixt. with printing ink). The fleece pref. has an absorbancy of at least ca 100% of its own wt. (10pp)

ALZA ★ D22 80766 D/34 ★EP --33-615
Sustained-release bandages - comprising drug layer between backing layer and contact adhesive layer

ALZA CORP 04.02.80-US-117846
B07 P32 P34 (12.08.81) A61f-13/02 A61k-09/70 A61l-15/03
A61m-37

22.01.81 as 300286 (367BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Bandages for admin of drugs to the skin or mucosa over a predetermined release time have a laminated structure comprising a drug reservoir layer sandwiched between a drug-impermeable backing layer and a drug-permeable contact adhesive layer, where the reservoir layer comprises the drug dispersed in a drug-permeable carrier.

The solubility of the drug in the carrier is C(SDR) (in mg/cc); the diffusion coefft. of the drug in the carrier is D(DR) (in square cm/hr); the concn. of the drug in the reservoir is C(DR) (in mg/cc); the thickness of the adhesive layer is CA (in cm); the solubility of the drug in the adhesive is C(SCA) (in mg/cc); the diffusion coefft. of the drug in the adhesive is D(CA) (in square cm/hr); and the concn. of the drug in the adhesive is C(CA) (in mg/cc).

Over at least a substantial portion of the release time, C(CA) must not be greater than C(SCA), and the ratio (D(CA).C(SCA))/(CA.Q) must be 0.01-0.7 (where Q is the square root of (D(DR).C(DR).C(SDR))/t and t is the time in hr).

The bandages provide approx. constant drug release rates over long periods without the use of rate-controlling walls or microporous membranes (cf. US3598122 and 3797494). (15pp)

KING-★ D22 80869 D/34 ★GB 1595-906
Surgical colostomy dressing - has vertical gas passage with carbon filter and control valve

KINGSDOWN MED CONSU 03.05.77-GB-018497
P32 (19.08.81) A61f-05/44

28.04.78 as ----- (006BZ)
The dressing comprises a self-adherent apertured pad carrying a bag coupling, the vertical gas passage with its filter being either

in the pad or the coupling, or specifically in a layer which connects the pad and coupling.

Pref. the filter includes activated carbon, e.g. as a woven carbon fabric layer or multiple edge-on layers as a filter pack. Pref. the passage includes a patient-controlled vent valve. (7pp)

SANO ★ D22 60883 D/34 ★ GB 2088-732
Topical application of 4-alkylamino:quinazoline deriva. - for controlling tick infestations in livestock

SANDOZ AG 05.02.81-GB-003509 (08.02.80-GB-004276)

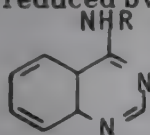
C02 (19.08.81) A01n-43/54

05.02.81 as 003509 (916DJ)

Preventing or combatting Acari ectoparasites on livestock by topical application of 4-alkylamino quinazolines of the formula (I): (where R is (8-11C) alkyl).

Used esp. for control of cattle ticks.

In an example, cattle infested with *Boophilus microplus* were sprayed at 21 days intervals with 0.05% by wt. aq. soln. of (I) (R is n-nonyl) by means of a spray race operating at a pressure of 1.4 Kg/sq. cm. and 810 l/min. It was found that the tick infestation was significantly reduced by the treatment. (3pp)



(I)

KAOS ★ D22 60945 D/34 ★ GB 2088-968
Porous flexible sheet - with pores formed by breakage of embedded brittle particles

KAOSOAP KK 10.01.80-JP-001541

A96 (19.08.81) C08j-09

05.01.81 as 000100 (1358AS)

A sheet, partic. a disposable nappy backing sheet, is a film in which fragments of brittle material are distributed, pores being formed by breakage of the particles. Particle diameter is pref. from 1 micron to the sum of sheet thickness plus 60 microns, and the sheet surface is treated with a water-repellent.

The film is pref. a non-foamed polyethylene, nylon or polyester containing 10-30 wt.% of glass, polystyrene, zeolite, silica, CaCO₃, polypropylene, PTFE or BaSO₄. The particles are pref. broken by compressing the sheet so that pores passing only vapour are formed by clusters of fragments with the outermost fragments flush with the surface. (8pp)

SUID- ★ D22 61020 D/34 ★ J5 6081-120
Deodorising gas contg. trace amts. of methyl sulphide - by oxidising with ozone in the presence of activated carbon

SUIDOKIKO KK 06.12.79-JP-157474

J01 (02.07.81) B01d-53/34

06.12.79 as 157471 (96PW)

Method comprises oxidising and decomposing malodorous components with activated carbon and ozone. The treating appts. consist of layer (1st catalyst layer) acting on malodorous components which are relatively readily oxidised and decomposed, and layer (2nd catalyst layer) acting on methyl sulphide alone. Ozone injection is carried out before each catalyst layer.

The process allows effective removal of trace amt. of methyl sulphide without causing degradation of catalyst layer over long periods. (3pp)

HITA ★ D22 61021 D/34 ★ J5 6081-121
Deodorising malodorous gas using two washing towers - sodium chloride diaphragm cell and sodium hypochlorite prodn. cell

HITACHI KK 07.12.79-JP-157984

J01 (02.07.81) B01d-53/34

07.12.79 as 157984 (96NS)

Process comprises combining two washing towers, common-salt diaphragm cell and sodium hypochlorite forming reaction chamber. Aq. sodium hypochlorite soln. is used as washing soln. of at least one washing tower. Aq. NaOH or chlorine water is used to wash the other washing tower or to adjust the pH of the aq. sodium hypochlorite soln. The appts. used also comprises a sodium hypochlorite storage tank, tanks of aq. sodium hydroxide soln. and chlorine water and pipes the different units.

Improved safety is obtd. (7pp)

MITO ★ D22 61022 D/34 ★ J5 6081-123
Deodorising gas contg. aldehyde from sewage treatment - by mixing with ozone, passing mixed gas through metal oxide catalyst layer then absorbing organic acid using activated carbon

MITSUBISHI HEAVY IND KK 05.12.79-JP-157534

J01 (02.07.81) B01d-53/36 B01j-23/26

05.12.79 as 157534 (96RP)

passing the mixed gas through catalyst layer contg. at least one oxide of Fe, Mn, Co or Cr to convert aldehyde into organic acid, and passing the gas contg. organic acid through activated carbon layer to absorb organic acid.

Raw gas is introduced into water washing tower, where water soluble substance such as ammonia is removed, and then the gas is mixed with ozone and passed through catalyst layer. Aldehyde in the gas is catalytically oxidised with ozone to give organic acid. The resulting organic acid in the gas is absorbed with activated carbon, and removed.

The process makes it possible to deodorise gas contg. aldehyde using reduced amt. of activated carbon than conventional method, and is useful for deodorising gas contg. aldehyde generated from sewage treatment or industrial waste water treatment. (2pp)

SHID ★ D22 61105 D/34 ★ J5 6081-508
Wood insecticide and fungicide compsn. - comprising aq. alkali metal salt of halogenated phenol, boron cpd. and/or fluorine cpd. opt. with triethanolamine

SHINTO PAINT KK 06.12.79-JP-158554

C03 E14 F09 (E36) (03.07.81) A01n-31/08 A01n-33/08 A01n-59

06.12.79 as 158554 (108DJ)

As boron cpd. there are used boric acid, borax, and borate such as sodium hexaborate. As fluorine cpd. there are suitably used NaF, KF or similar fluoride of alkali metal. As alkali metal salt of halogenated phenol there are used sodium and potassium salt of 2,4,6-tribromophenol and 2,4,6-trichlorophenol.

Prepn. of the compsn. is as follows: 1.5-2.5 wt.% aq. soln. of boron cpd. and/or fluorine cpd. is prepd. Then 10-60 (30-40) wt.% of alkali metal salt of halogenated phenol and if desired, 0.3-2.5 wt.% of triethanolamine are dissolved in water, and 0.1-1 wt.% of the second liq. is added to the first liq. Wood is treated by injecting the compsn. under pressure.

Boron cpd. and/or fluorine cpd. are known to have insecticidal activity. Addn. of alkali metal salt of halogenated phenol imparts fungicidal effect to the compsn. Further, addn. of triethanolamine prevents the pptn. of the alkali metal salt of halogenated phenol in the aq. soln., and at the same time prevents colouring of wood and colouring of the aq. soln. (4pp)

NITL ★ D22 61364 D/34 ★ J5 6083-418
Poultice comprises A-B-A type block copolymer - with water, oil, and glyco:salicylate and/or methyl salicylate, has good storage properties

NITTO ELECTRIC IND KK 11.12.79-JP-161215

A96 B05 (08.07.81) A61k-09/70

11.12.79 as 161215 (5NS)

Poultice contains (a) A-B-A-type block copolymer elastomer, (b) water, (c) oily component, (d) glyco:salicylate and/or methylsalicylate, (e) an inorganic powdered acid promoting the medicinal effects of (d) and (f) at least one organic acid. In (a) the wt. proportion A-B is pref. 15-65:85-35. (A) is pref. a hard polymer of a vinyl cpd. e.g. (methyl)styrene, etc. of molecular wt. 1000-500000 and T(g) above 70 deg. C. (B) is pref. a soft polymer of a conjugated diene e.g. butadiene, isoprene, etc. of molecular wt. 4500-1000000 and T(g) (-100)-30 deg. C.

Poultice gives excellent medicinal effect and a cool feeling. Water bubbles are held in an oily continuous phase and the poultice is hardly hardened due to the vapourisation of water. The poultice keeps its stickiness to the skin and its medicinal effect for a long time. (6pp)

NEWN- ★ D22 61614 D/34 ★ J8 1032-358
Solid cleaning compsn. for toilet - contg. urea, surfactant and benzylidene-sorbitol j5 9.12.75)

NEW JAPAN CHEM CO 31.05.74-JP-061465

A97 E16 (E14) (27.07.81) C11d-01 C11d-03/60

31.05.74 as 061465 (38RH)

Solid cleaning compsn. for toilet contains urea, surfactant, and benzylidene-sorbitol (I). In an example, a compsn. from polyethylene glycol nonyl phenyl ether 50, urea 30, (I) 0.5, dye 5, perfume 5, and water 9.5 g was placed in toilet tank, and the compsn. lasted 1200 flushing cycles. (J50153011) (3pp)

RAAB/ D22 62738 C/36 = US 4281-420
Bone prosthesis with covering of PMMA - applied after removal of surface impurities from esp. metal prosthesis, giving better bonding strength and durability

RAABS 15.02.79-GB-005445

A96 M14 P32 P42 (A14 A17) (04.08.81) *DE3005-264 A61f-01/2 + A01n-01/02

05.06.79 as 045657 (974HM)

Novel process for joining a prosthesis to bone comprises applying bone cement to a PMMA film fixed to the prosthetic element.

surface to form a film, and annealing the film. Pref. the prosthetic element is composed of metal.

The process maximises the bond strength and durability. (9pp)

PROC D22 71976 C/41 = US 4281-421
Dispenser for dosing hypochlorite e.g. into flush toilet - contains hypochlorite source in cake also contg. component(s) which form insoluble porous matrix

PROCTER & GAMBLE CO 12.03.79-US-019547

P34 Q42 (04.08.81) *EP--16-492 E03d-09/02

12.03.79 as 019547 (974PW)

Novel dosing dispensers comprise a reservoir; a cake contg. hypochlorite in the reservoir, and an inlet for water to enter the reservoir, immerse the cake, dissolve some hypochlorite and stay contained in the reservoir for later release.

The cake comprises an effective amt. of a hypochlorite source and at least one component which, when exposed to water, forms an insoluble porous matrix which entrains and disperses some of the water in the reservoir while gradually allowing the hypochlorite to dissolve. The pourable fluid capacity does not increase as the hypochlorite is exhausted. Dispensers are esp. for conventional toilets. (15pp)

MESR D22 80981 C/46 = US 4281-518
Gas component segregation from gas mixt. - by direct admission in separator without ingress of false air

MESSERSCHMITT-BOLKOW-BLO 20.04.79-DE-915953 (23.01.79-DE-902391)

E36 J01 + Q75 (04.08.81) *DE2915-953 + F25j-01/02

21.01.80 as 113743 (006HM)

Method of recovering gases from air-gas mixts., the gas being SO₂, ethylene oxide, or hydrocarbons, esp. from sterilisation treatment processes, in which a mixt. is fed down into a tank supplied with liq. N₂ spray for converting the gas into snow flakes.

Swirling the ingoing streams throws the flakes against the tank wall, for sepn. and melting into collectable liq. (8pp)

ANTY/★ D22 62017 D/34 ★US 4281-647
Inflatable bandage splint for human hand - with inner glove and inflatable envelope with eyelets for tensioning ties

ANTYPAS P G 12.10.79-US-084372

P32 (04.08.81) A61f-05/10

12.10.79 as 084372 (1358HM)

Splint has an inner glove conforming to the hand and sealed to a slightly larger outer elastic envelope at the proximal ends, and fasteners securing the glove and envelope together at distal locations.

Tensile members can be strung through eyelets at the locations and eyelets at the splint proximal end, and tied to provide the desired neutral position of the hand when the splint is inflated. The envelope may be glove or mitten shaped, and may be inflatable, or compartments may be formed between glove and envelope with valves so that some can be filled with settable fluid and some with compressible fluid. The members are e.g. of elastic cord. (7pp)

CEDE- D22 80223 A/45 = US 4281-650
Adhesive medical plaster with impregnated gauze dressing - sealed in air tight package torn open immediately before use

CEDERROTHS AB 11.07.77-SE-008031

P32 + P34 Q34 (04.08.81) *BE-868-695 A61l-15 + A61f-07/02

10.05.78 as 904500 (006HM)

Sealed medicinal dressing, comprises a medicated pad on an adhesive-coated backing, with the assembly enclosed between foils adhesively secured to the backing.

The foils are strippable, one to expose the pad and the other to expose the portions of the adhesive-coated backing encompassing the pad. Pref. the foils are plastic-coated Al., one or both with stripping tabs. (6pp)

SIEI D22 27640 C/16 = US 4281-668
Implantable carbon electrode - e.g. for heart pacemaker, coated with hydrophilic ion-conductive polymer

SIEMENS AG 28.09.78-DE-842318

A96 G02 S05 P34 (A14) (04.08.81) *EP---9-727 A61n-01/04

21.09.79 as 077622 (926HM)

Implantable carbon electrode e.g. for a cardiac pacemaker comprises a conductive body and a head. It contacts an insulated lead-in cable and at least the surface of the head consists of glass carbon or pyrolytic carbon which has been superficially activated to form a microporous surface.

The surface of the electrode has a smooth coating consisting of a hydrophilic ion-conducting plastic which at least has a surface comprised of a body and/or blood compatible material. The coating pref. consists of a hydrogel or an ion exchange material. Faraday electrode processes and post operative stimulus

POLY-

D22

64496 C/37 = US 4281-992

Dentures with improved thermal deformation resistance - made from polyurethane elastomer prep. from aromatic polyisocyanate and polyether poly:ol

POLYTHETICS INC 21.02.79-US-013159 (23.11.79-US-096680)

A96 P32 (A25) (04.08.81) *DE3006-573 A61c-13

23.11.79 as 096680 Div ex 4225696 (+ 21.12.79-US-013159) (931HM)

Artificial denture comprises a tooth holding portion integrally applied to a mouth engaging portion. The tooth holding portion is prep. from a hard, non-hydrophilic polyurethane elastomer of hardness Shore D60 or more. The elastomer used comprises the reaction prod. of a polyether polyol and an aromatic polyisocyanate whose isocyanate gps. are bonded directly to the aromatic nucleus. The mouth engaging portion comprises a soft, non-hydrophilic elastomer.

The hard elastomer used has superior resistance to thermal distortion under the conditions prevailing in the mouth. (4pp)

AMST-★

D22

62159 D/34 ★US 4282-179

Low temp. disinfection with isopropanol - of endoscopic articles etc., by exposure to liq free vapour

AMER STERILIZER 08.02.80-US-119788

E17 P34 (04.08.81) A61l-02/06

08.02.80 as 119788 (478AT)

Heat- or liq- sensitive articles brought into contact with patients during examination, surgery, or therapy are disinfected by exposure to a liq.-free vapour consisting of 40-100 vol. % i-PrOH and 0-60 vol. % H₂O at 45-65 deg.C/not above atmos. pressure. The article is removed and any condensed i-PrOH on its surface is allowed to evaporate.

Treatment is pref. at 55 deg. using 70 vol. % i-PrOH/30 vol. % H₂O either at atmos. pressure or at 25-35mm (created before introduction of vapour). Opt. the vapour may also contain 0-6 vol. % BuOH and/or 0-5 vol.% morpholine.

The quick, penetrating low-temp. treatment atmos. pressure (or below); effectively destroys infectious organisms; yields H₂O-free articles without aeration time; and leaves no residual agent. The method is esp. efficient in sterilising endoscopic equipment (including fiberoptic articles). (5pp)

ABBO

D22

29288 D/17 = US 4282-211

1-Epi-2-desoxy-fortimicin derivs. - are antibacterials effective against e.g. Staphylococcus aureus, Escherichia coli and Salmonella typhimurium

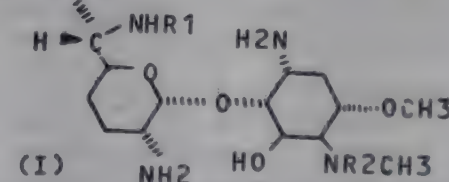
ABBOTT LABORATORIES 26.09.79-US-079146

B03 C02 E13 + P34 (04.08.81) *DE3036-237 A61k-31/71 C07h-15/22

26.09.79 as 079146 (945PW)

1-Epi-forti-mycin derivs. of formula (I) and their salts are new. In the formula, R₁ is H or alkyl. R₂ is (di)aminoalkyl, (di)alkylaminoalkyl, (hydroxy)alkyl, (di)alkylaminohydroxyalkyl, (hydroxy)acyl, (di)aminoacyl, OH-substd. aminoacyl or (di)alkylaminoacyl opt. OH substd. R₂ is not (formyl)glycyl or hydantoyl. Alkyl moieties contain 1-7C.

The cpds. are broad spectrum antibiotics. Daily dose is 10-100 (15-30) mg/kg. given intravenously, intramuscularly, intraperitoneally, subcutaneously, orally or rectally. They are also used as disinfectants. (5pp) CH₃



INTO★

D22

62258 D/34 ★US 4282-366

Tri:substd.-silyl-alkyl-alkyl-di:methyl-ammonium chloride salts - useful as antimicrobials esp. for application to polymers, textiles etc.

INT PAPER CO 06.11.79-US-091749

A60 C01 E11 (04.08.81) C07f-07/10

06.11.79 as 091749 (1248DJ)

N-(Trisubstd.-silylalkyl)alkyldimethylammonium chloride salts of formula

(Y)3Si-(CH₂)_m-N(+)Me₂-(CH₂)_n-Me Cl(-) (I) (where either (a) m + n is 16-19, m is 1 or 4-6 and n is 13-17 or (b) m + n is 20-23, m is 4-11 and n is 9-17; and Y is OH or a hydrolysable gp.) are new.

Cpds. (I) in which Y is MeO and (a) n is 17 and m is 1, 6 or 5, (b) n is 13 and m is 6 or 5, (c) n is 15 and m is 5 and (d) n is 14 and n is 6 are specifically claimed.

Cpds. (I) are potent antimicrobials useful for the control of gram-positive and -negative bacteria, algae, yeasts, fungi, etc. and suitable for appln. to substrates to impart resistance to microorganisms. When applied to a surface having free OH gps., (I) (in alcoholic soln.) is believed to form covalent bonds and it is not readily washed off or leached from the surface. Substrates

cellulose acetate, rayon, nylon, vinyl, metals, wood, rubber, paper, glass, ceramics, etc. When the surface does not contain OH gps., (I) is pref. added during prepn. to the compsn. to form it, e.g. to plastics, paints, ointments, fabrics, etc. (4pp)

GREC D22 11125 C/06 #WP 8102-108
Perfusate for preserving organs to be transplanted - comprising a modified Ringer's soln., albumin, per:fluorocarbon cpd. and emulsifier

GREEN CROSS CORP 10.10.78-US-950071 (28.01.80-WP-J00011)

A96 + P31 (06.08.81) *US4186-253 + A61k-09/10

28.01.80 as J00011 (ELB) (J) 2.Jnl.Ref E(BR DK NO SU)

Perfusion storage method for transplant organs in which an organ, e.g., a kidney, to be transplanted is stored in a mixt. of e.g. 570 ml Ringer's soln. modified to give a potassium ion conc. of 8-20 mEq/l and e.g. 330 ml emulsion contg. 1-8% (w/v) albumin and 7.5-12.5% (w/v) perfluorocarbon cpd., pref. a 9-12C cpd. Emulsification is pref. effected with a polyethylene-polyoxypropylene of mol. wt. 2,000-20,000, polyoxyethylene alkyl ether or polyoxyalkylalyl ether or a mixt. thereof with phospholipid, and in the presence of a 8-21C fatty acid as an assistant.

The soln. gives improved post-transplant survival rates up to periods of over 4 weeks. (32pp)

SAND/ ★ D22 62292 D/34 ★ WP 8102-108
Sterilisation container for autoclaving - has automatically-released hold-open catch operated by expansible diaphragm
SANDERSON R S 28.01.80-US-115678 (00.00.78-JP-093064)
P34 Q34 Q51 Q57 Q66 (06.08.81) A611-02/06 B65d-81/20 F01b-15-F01b-19 F15b-13/02 F16k-31/12

27.01.81 as U00116 (006DJ) (E) US2187154 US3060897 US3066698 US3112045 US3250295 US3307739 US3458275 US4105407 US4149650 US4186653 US4196166 US4247517 US4249457 N(AU BR DK JP KP LU) E(AT CH DE FR GB LUNL SE)

The sterilisation container e.g. for surgical items, has a lid which can be held open by a support catch i.e. as the container is put in an autoclave. The catch carries an expandible chamber which releases the catch automatically to allow the lid to close, i.e. to seal in the sterilised contents of the container for storage.

Pref. the expandible chamber comprises a pressure-sensitive diaphragm. The container lid closes automatically at predetermined sterilisation temp. (53pp)

See Also

D13 US 4282219

D16 US 428235

D16 US 4282327

D23: OILS; FATS; WAXES

HESS/ ★ D23 80595 D/34 ★ DE 3004-223
Distribution of gases or vapours in liquids - where pressurised gas or vapour flows through nozzle closed by spring loaded piston

HESS G 06.02.80-DE-004223

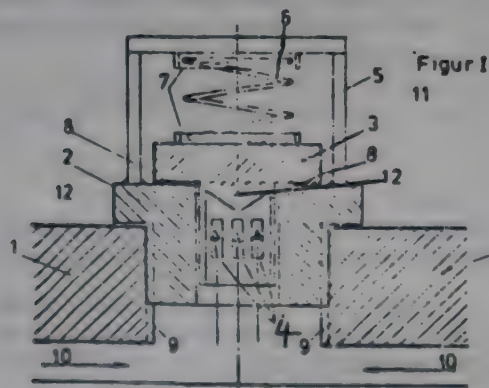
J02 (J01) (13.08.81) B01f-13/02

06.02.80 as 004223 (1144AT)

A liq. is located in a zone (11) above a plate (1), which separates zone (11), from a lower zone (10) contg. gases and/or vapours. Plate (1) is provided with holes contg. a nozzle (2). In the nozzle (2) is a piston (3), which is mobile vertically, and which is forced downwards by a coil spring, or drops via gravity, to close nozzle (2); but gas pressure in zone (10) lifts piston (3).

One pref. nozzle (2) contains a piston (3) with a tubular skirt contg. a circular row of holes (4). When the piston is lifted by gas or vapour pressure in zone (10), the gas or vapour flows through holes (4) into zone (11). In other pref. nozzles, piston (3) has a conical or spherical profile.

Used in all types of chemical plant, e.g. for distn. of absorption. One possible use is the hydrogenation of unsatd. fatty acids or vegetable or animal oils, which can form resins blocking the nozzle unless the latter is completely sealed when closed. (10pp (10pp Dwg.No.1)



HENK ★ D23 60652 D/34 ★ DE 3004-661
Alkyl-substd. 1,3-dioxolan used as perfume components - for perfume compsns. used for scenting cosmetics and technical prods.

HENKEL KG AUF AKTIEN 08.02.80-DE-004661

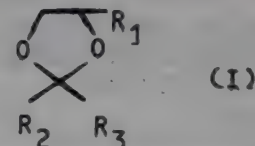
E13 (13.08.81) A61k-07/46 C11d-03/50 C11d-09/44

08.02.80 as 004661 (200BZ)

Alkyl-substd. 1,3-dioxolans having formula (I) (where R1 is 4-12C alkyl; R2 is H, 1-7C alkyl, 5-8C cycloalkyl or cycloalkenyl or opt. alkyl-substd. aryl; R3 is H or 1-3C alkyl) are used as perfumes. Perfume compsns. contg. 1-50 wt.% (I), w.r.t. total compsn., are claimed.

(I) can be prepd. by the acid-catalysed acetalation of R2- and R3-contg. carbonyl cpds. with 6-14C 1,2-diols, and removal of water of condensation by azeotropic distn. with a solvent or by

The compsns. can be used as perfumes or for perfuming (i) cosmetics, e.g. creams, lotions, toilet water, aerosols, dentifrice or toothpaste, and (ii) technical prods., e.g. detergents, cleansers, disinfectants and textile auxiliaries. (I) have a strong, mainly fruity fragrance and combine well to new perfume notes. (13pp)



PETE/ ★ D23
Wax candle conical end turning tool

PETERSEN T 05.10.79-DK-004176

(27.07.81) C11c

D/34 ★ DK 7904-176

INFL ★ D23 80761 D/34 ★ EP --S3-604
Prepn. of methyl dihydro-jasmonate and analogues - for use in jasmine perfumes and in prepn. of medicinal prods.

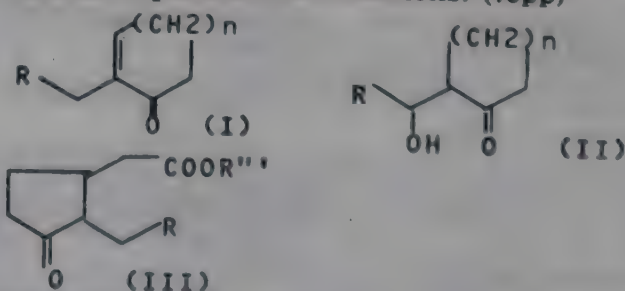
INT FLAVORS & FRAGR INC 13.11.80-US-206688 (18.01.80-US-113297)

B05 E15 (12.08.81) C07c-45/66 C07c-49/52 C07c-69/71

16.01.81 as 300207 (1248AT) (E) GB1528440 GB1347667 US3158644 DS-956948 2.Jnl.Ref E(CH DE FR GB LINL)

(A)Prepn of a 2-oxocycloalkenylalkane of formula (I) involves treatment of a cycloalkanone of formula (II) with HCl or HBr in presence of nBuOH or toluene. In the formulae n is 0 or 1; and R is 1-4C alkyl. Cpds (I;n is 1) are new.

(c)Prepn of a cyclopentanone deriv of formula (III) involves reacting (I;n is 0) with a malonic acid, diester (ROOC)CH2(COOR') to form an intermediate which is treated with water at 200 New route to cpds (III), which include methyl dihydrojasmonate (V), and are intermediates for medicinal prods., perfumery materials and for augmenting or enhancing the aroma of perfumes, perfumed articles such as detergents or fabric softeners, and colognes. Cpd. (V) is described in GB907431; it is used in jasmine perfume formulations. (75pp)



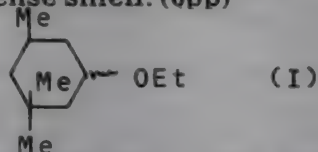
HENK D23 45812 A/26 = GB 1595-957
1-Ethoxy-3,3,5-trimethyl cyclohexane for use in perfume compns. etc. - prepd. by hydrogenation giving mixture rich in trans isomer

HENKEL KG AUF AKTIEN 23.12.76-DE-658567
E15 (19.08.81) *BE-862-168 A61k-07/46
20.12.77 as 052873 (977BZ)

Perfume compsn. comprises cis and/or trans-3,3,5-trimethyl cyclohexyl ether of formula (I) and other perfume(s). The ratio of trans to cis is pref. 19:1 and the amt. of cis and trans ether is pref. 1-50 wt.% of the total compsn.

(I) can be prepd. by hydrogenation of isophorone to give cyclohexanol deriv. in cis and trans form. The cis alcohol can be converted to the cis ether by metallisation with sodium hydride and conversion with ethyl halide. The trans alcohol can be converted to the trans ether by boiling for several days with silver oxide and ethyl iodide.

The cis ether has fruity, minty, herbal fragrance. The trans ether has a more intense smell. (6pp)



HENK D23 45812 A/26 = GB 1595-958
1-Ethoxy-3,3,5-trimethyl cyclohexane for use in perfume compns. etc. - prepd. by hydrogenation giving mixture rich in trans isomer

HENKEL KG AUF AKTIEN 23.12.76-DE-658567
E15 (19.08.81) *BE-862-168 C07c-43/18
20.12.77 as 020021 80 Div.ex 1595957 (974AT)

Trans-3,3,5-trimethylcyclohexylethyl ether (I) contg. only a small amt. of the cis ether is produced by hydrogenating the corresp. cyclohexenyl ether in the presence of a dry Ni catalyst at 150-200 deg.C and 10-200 bars H₂ pressure.

Pref. the ratio (I):cis ether is 95:5. Pref. reaction is in the absence of a solvent.

(I) is a perfume fragrance. (3pp)

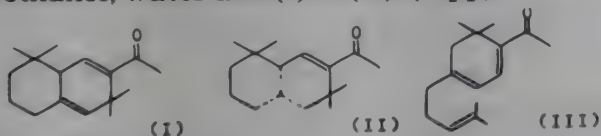
INFL D23 21425 A/11 = GB 1595-978
Unsaturated-acetyl-di:methyl-cyclohexane cpds. - intermediates for hexa:hydro-tetra:methyl acetonephthone derivs. useful as vetiver ingredients in perfumes

INT FLAVORS & FRAGR INC 11.11.76-US-740890
E15 (19.08.81) *US4076-749 A61k-07/46 C07c-49/55 C11d-03/50 C11d-09/44

19.10.77 as 043588 (984HM)

Acetonaphthone cpd. of formula (I) is new. Also new is a mixt. of cpds. of formula (II) where one of the dashed line is a CC double bond and the others are CC single bonds. (II) are produced by cyclising acetyl conjugated cyclohexadiene of formula (III) by heat with mixt. of phosphoric acid, dil sulphuric acid, BF₃ or BF₃-etherate and a solvent at 70-100 deg.C, the reaction mass contg. 25-50wt.% solvent. (III) is prepd. by reacting 3-chloromesityl oxide with myrcene, dechlorinating and cyclising.

(I) and (II) are used in perfume cpds. and have aromas with woody, hay or green nuances. Claimed cologne compsns. comprises ethanol, water and (I) or (II). (27pp)

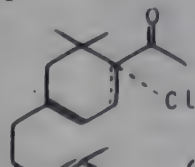


INFL D23 21425 A/11 = GB 1595-979
Unsaturated-acetyl-di:methyl-cyclohexane cpds. - intermediates for hexa:hydro-tetra:methyl acetonephthone derivs. useful as vetiver ingredients in perfumes

INT FLAVORS & FRAGR INC 11.11.76-US-740890
E15 (19.08.81) *US4076-749 C07c-49/55
19.10.77 as 020558 80 Div ex 1595978 (964HM)

Acetyl conjugated cyclohexadiene derivs. of formula (I) are new. In (I) either the bond represented by the dotted line is present to form acetyl conjugated cyclohexadiene or the bond represented by the dashed line is present to form a hydrochlorinated deriv.

The hydrochlorinated deriv. is prepd. by reacting mesityl oxide with chlorine, dehydrohalogenating prod. to form 3-chloromesityl oxide and reacting this with myrcene, pref. in the presence of Friedel-Crafts catalyst. The deriv. may be dehydrohalogenated in the presence of polar aprotic solvent to give the acetyl conjugated cyclohexadiene.



(I) are intermediates for acenaphthones which are used in perfumery to provide ambere or fruity ambere fragrance. (-pp)

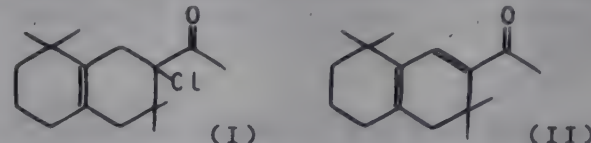
INFL D23 21425 A/11 = GB 1595-980
Unsaturated-acetyl-di:methyl-cyclohexane cpds. - intermediates for hexa:hydro-tetra:methyl acetonephthone derivs. useful as vetiver ingredients in perfumes

INT FLAVORS & FRAGR INC 11.11.76-US-740890
E15 (19.08.81) *US4076-749 C07c-49/56

19.10.77 as 020559 80 Div ex 1595978 (964HM)

Chlorinated acetyl octahydronaphthalene deriv. of formula (I) is new. (I) may be dehydrohalogenated to form a subst. acetonephthone of formula (II). Dehydrohalogenation takes place in polar aprotic solvent and base. The solvent is e.g. DMF, dimethyl acetamide, N-methyl pyrrolidinone, hexamethyl phosphoramide or pyrrole-N-carboxaldehyde. Base is e.g. CaCO₃, Li₂CO₃, MgCO₃, CaO, Li₂O or MgO. Reaction is pref. at 120-250 deg.C using ratio of base to (I) of 0.5:1-5:1.

The prods. (II) are useful in colognes and perfume compsns. (6pp)



NISC ★ D23 61374 D/34 ★ J5 6083-434
Unsatd. aldehyde prodn. from unsatd. alcohol - by reacting in inert gas using aromatic mercaptan and reaction initiator

NISSAN CHEM IND KK 12.12.79-JP-161272
B05 C03 E19 (08.07.81) B01j-31/02 C07c-45/51 C07c-47/20
12.12.79 as 161272 (69DJ)

Aldehydes of formula

R₁R₂C=CH-CH₂-CHO (II) may be produced by treating unsaturated alcohol of formula

R₁R₂C=CH-CH₂OH (I) in inert gas using aromatic mercaptan as catalyst with addn. of reaction-initiator. R₁ is H or lower alkyl; R₂ is (unsatd.) hydrocarbon gp.; the hydrocarbon gp. may contain at least one hetero atom such as O, S or N.

Unsaturated alcohol is geraniol, nerol(3,7-dimethyl-2,6-octadiene-1-ol), farnesol(3,7,11-trimethyl-2,6,10-dodecatrien-1-ol) or phytol(3,7,11,15-tetramethyl-2-hexadecene-1-ol) etc. Prod. aldehyde, prod. is citronelal, 3,7,11-trimethyl-6,10-dodecadiene-1-al or 3,7,11,15-tetramethyl-hexadecane-1-al etc.

These aldehydes are important in perfume industry and they may be used as perfume or intermediates for the synthesis of perfume. (3pp)

NISC ★ D23 61375 D/34 ★ J5 6083-435
Unsatd. aldehyde prodn. - by treating unsatd. alcohol(s) in polar, non proton solvent in oxygen atmos. with aromatic mercaptan catalyst

NISSAN CHEM IND KK 10.12.79-JP-160101
B05 C03 E19 (08.07.81) B01j-31/02 C07c-45/38 C07c-47/21
10.12.79 as 160101 (69RH)

Unsatd. aldehyde of formula R₁R₂C:CH-CHO (II) may be produced by treating unsatd. alcohol of formula R₁R₂C:CH-CH₂OH (I) in polar non-proton solvent in oxygen atmos. using aromatic mercaptans as catalyst. (R₁ is H or lower alkyl; R₂ is (un)satd. hydrocarbyl, the hydrocarbyl may contain at least 1 hetero atom e.g. O, S or N).

Suitable (I) include geraniol, nerol(3,7-dimethyl-2,6-octadien-1-ol), farnesol(3,7,11-trimethyl 2,6,10-dodecatrien-1-ol), phytol(3,7,11,15-tetramethyl 2-hexadecane-1-ol). The prods., (II), include citral, farnesal, phytaldehyde etc. (II) are important in perfume industry as perfumes or intermediates for the prodn. of perfume, solvent or reserving agent. (II) may be used as intermediates for pharmaceuticals or agrochemicals, e.g. citral is intermediate for vitamin A. (3pp)

TAKE D23 58795 B/32 = J8 1032-287
Perfume compsn. for cosmetics, foods, dentifrices etc. - contains 2,3,4,4a,5,6-hexa:hydro-2,5,5,8a tetra:methyl(8ah)-1-benzopyran
SODA KORYO KK (SOSH) 06.12.77-JP-146314
E13 (27.07.81) *J54080-432 A61k-07/46
06.12.77 as 146314 (42HM)

Perfume compsn. contains 2,3,4,4a,5,6-hexahydro-2,5,5,8a-tetramethyl(8aH)-1-benzopyran of formula (I). Compsn. is used in household goods, such as dentifrice, mouth-refreshing agents, foods, tobacco, cigars, cosmetics, etc.

(I) can be prepd. from isophorone. The amt. of (I) in compsn. is 0.001-10 wt.%. When (I) is mixed with peppermint, spearmint or beefsteak plant flavour, the top-notes of menthol, carvone and peliraldehide are diluted. The same effects are demonstrated by mixing (I) with citrus oil, strawberry flavour, cherry flavour, rose flavour, etc. (J54080432) (5pp)

LIOY D23 83356 B/46 = J8 1032-288
Perfume compsn. contg. sabinene hydrate - has good body, a refreshing effect and a light, fresh aroma

LION DENTIFRICE KK (LIOC) 31.03.78-JP-037821

E15 +P34 (27.07.81) *J54129-138 A61k-07/46 + A23l-01/22 A61l-09/*

31.03.78 as 037821 (5AT)

Perfume compsn. is characterised by contg. sabinene hydrate (I) as more than 1 (1-80) w/w% on whole compsn. Addn. of (I) imparts intensified naturalness, good body, mildness, refreshing feeling and a light, fresh aroma.

Specifically, in the case of a peppermint type or spearmint type flavour (I) intensifies the refreshing feeling. In the case of fruit flavour (orange, lemon, etc.) (I) gives a light, fresh refreshing aroma. In the case of a heavy perfume such as a lilac floral type perfume the perfume can be converted to the light volatile perfume showing good diffusability.

(I) is an inexpensive cpd. and can be prepd. easily from 5-isopropylbicyclo (3.1.0) hexane-2-one (sabinaketone) through the intermediate spiro (5-isopropylbicyclo(3.1.0) hexane-2,2'-oxylan). (J54129138) (5pp)

SANE D23 43160 B/23 = J8 1032-353
Antioxidant for fats and oils - contains geranium tannin obtd. from geranium nepalense sweet by extrn. with water, alcohol, acetone etc.

SAN EICHEM IND KK 04.10.77-JP-119647

(27.07.81) *J54053-110 + A23b-04/14 A23d-05/04 C09k-15/08

04.10.77 as 119647 (117AS)

The antioxidant contains geranium tannin which can be obtd. from Geranium nepalense sweet by extrn. with water, alcohols, acetone, etc.

This antioxidant is easily soluble in water, alcohols, or alcoholic water, odourless, tasteless, stable against heat and light, and safe for medical purpose. It is applicable to all foods and is used in a concn. of 1 ppm. (J54053110) (2pp)

FATS = * D23 61735 D/34 ★SU-785-209
Oils and fats refining aq. effluent purificn. by ultrafiltration - on semipermeable membrane of methyl methacrylate and vinyl 1-pyrrolidone copolymer or PVC to improve carbonyl cpds. removal

FATS RES INST 10.04.79-SU-751310

A88 J01 (07.12.80) C02f-01/44

10.04.79 as 751310 (835VE)

The removal of carbonyl cpds. from fat and oil refining effluent on semi-permeable membranes is improved by ultra-filtration at

30-50 deg.C, 3-4 kg/sq.cm. pressure (Reynolds no. 15000-20000). The semi-permeable membrane is made from a copolymer of vinyl-pyrrolidone with methyl methacrylate or PVC for optimal selectivity.

Typically, 1 l. effluent contg. 0.2 g/l dry matter, 0.6 g/l ether soluble matter, 120 micro mol/ml carbonyl cpds., was subjected to ultra-filtration under the above conditions on a membrane of pore size 50-25 Angstroms. The latter was 96% selective for carbonyl bodies and 98% for ether-sol matter. COD in the filtrate fell 3-fold. The process took 2.4 hrs. The degree of purificn. was 10% better than by usual procedure and expenditure was reduced by 30%. Bul. 45/7.12.80 (2pp)

AAZC = * D23 61817 D/34 ★SU-785-291
Di-tert.-butyl-hydroxy-benzyl para-amino-phenol prepn. - by reacting corresp. benzyl chloride with para amino-phenol in presence of triethyl-amine, used as antioxidant

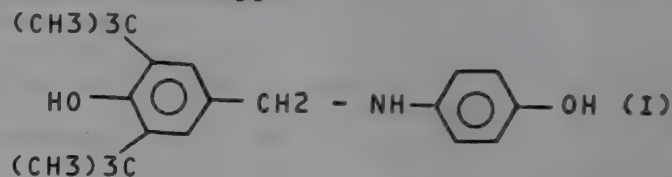
AS AZERB CHEM ADMIX 25.10.78-SU-678203

E14 (07.12.80) C07c-30/06

25.10.78 as 678203 (114VE)

N-(3,5-di-tert.-butyl-4-hydroxybenzyl)-p-aminophenol of formula (I) is described as new. It is used as antioxidant additive for synthetic aromatic oils. It is prepd. by reacting 3,5-ditertbutyl-4-hydroxybenzyl chloride with p-aminophenol in DMF at 35-80 deg.C in presence of triethylamine (TEA) as HCl acceptor.

Typically a soln. of 0.1 moles p-aminophenol in 100 ml DMF and 0.1 moles 2,6-di-tert.-butyl 4-hydroxy-benzyl chloride are mixed to give exothermic reaction and temp. rise to 68-70 deg.C 0.1 moles TEA are added at 35-40 deg.C before stirring 4-5 hrs at 70-80 deg.C to give 70-80% yield of phenol (I) (m.pt. 174-176 deg.C from ethanol). Bul.45/7.12.80 (3pp)



See Also

D21 US 4282205

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

CHEM * D25 60646 D/34 ★DE 3004-651
Sulphonic acid separation from paraffin sulphoxidation prod. - by extrn. with aromatic alcohol and separation from alcoholic phase

CHEM WERKE HULS AG 08.02.80-DE-004651

E14 (13.08.81) C07c-139/04

08.02.80 as 004651 (200KB)

Sulphonic acids are sepd. from a reaction mixt. obtd. by the Uv. light-catalysed reaction of paraffins with SO₂, O₂ and water, by extrn. with an aromatic alcohol having formula R₁-(CR₂R₃)_n-OH (I), (where R₁ is Ph opt. substd. by halogen atoms and/or 1-6C alkyl gps.; R₂ and R₃ are H and n is integer 1-3. R₂ can also be Me when n is 1). The middle alcoholic phase is sepd. from the top paraffin and the bottom aq. H₂SO₄-contg. phases and the sulphonic acids are isolated from the alcoholic phase.

The free sulphonic acids or their alkali- or alkaline earth salts are used in detergent prepn. The sulphonic acids can be sepd. from H₂SO₄ as well as from unreacted paraffin in 1 step. (9pp)

UNIL D25 55648 D/31 = EP --33-601
Cleaning compsn. esp. for ovens - contg. nonionic surfactant, alkali and high b. pt. solvent

UNILEVER LTD 17.01.80-GB-001539

(12.08.81) *GB2067-588 C11d-01/66 C11d-03/02

16.01.81 as 300199 (955BZ) (E) US3829387 GB1297782 GB-825960 US3839234 US4147652 GB1311534 US3960742 FR2042576 E(AT BE CH DE FR GB IT LI NL SE)

Cleaning compsn. consists of 1-6 wt.% nonionic surfactant, 1-40 wt.% alkali and 5-20 wt.% solvent in an aq. base. The nonionic surfactant is esp. a polyoxyalkylene alkyl ether e.g. of the Brij (RTM) series, and forms 1.5-2.5 esp. 2 wt.% of the compsn. The alkali may be sodium or potassium hydroxide, or a silicate e.g. potassium silicate having K₂O:SiO₂ ratio 1:2 to 2:1, guanidine, or a mono-, di- or trialkylamine. Prefd. concn. ranges are 1-10, esp. 3-6 wt.% for caustic alkali, and 3-30, esp. 4-10 wt.% for silicates. The solvent should have a b.pt. above 120 deg.C, and is e.g. butoxyethanol, and alkoxyethoxyethanol, pentacrythritol, propylene glycol etc., and forms 5-15 esp. 10 wt.% of the compsn. The cleaner may also include up to 18 wt.% conventional hydrotropes, thickeners e.g. hydroxyethyl cellulose, acrylate-methacrylate copolymer, magnesium sulphate etc., and opt. dyes and humectants.

The compsn. is an effective cleaner for hard surface esp. industrial ovens. (9pp)

UNIL ★ D25 60862 D/34 ★GB 1595-769
Spray-dried absorbent comprises sodium carbonate and bicarbonate - useful for absorbing nonionic surfactants for detergent powders

UNILEVER LTD 05.11.76-GB-046194
E34 (19.08.81) C01d-07/38 C11d-03/10
06.02.78 as ----- (949AT)

A spray-dried absorbent comprises sodium carbonate (I) and sodium bicarbonate (II) in wt. ratio 1.25-4.0:1 and has a bulk density of 0.25-0.65 (0.25-0.4) g/ml and moisture content 1.0-17.5%. A pre-mix useful for prepn. of detergent powder comprises a nonionic surfactant and the above absorbent.

Prepn. of a material useful as an absorbent for nonionic surfactants comprises spray-drying a slurry of (I) and (II) in wt. ratio 1.25-4.0:1, pref. under such conditions as to give the above prod. Esp. slurry temp. is 40-70 deg. C and air temp. at the tower inlet is 300-375 deg. C.

The absorbent is also useful as a filler for detergent powders. (3pp)

UNIL ★ D25 60863 D/34 ★GB 1595-770
Spray-dried absorbent comprising sodium carbonate and sodium silicate - useful for absorbing nonionic surfactants for detergent powders

UNILEVER LTD 05.11.76-GB-046195
A97 (19.08.81) C01b-33/26 C01d-07/38 C11d-03/08
06.02.78 as ----- (949RH)

A spray-dried absorbent comprises sodium carbonate (I) and sodium silicate (II) in wt. ratio 1.0-10.0:1 and has a bulk density of 0.15-0.70 (0.15-0.48) g/ml and moisture content 0.5-12.0%. A pre-mix useful for detergent powder prodn. comprises a nonionic surfactant and the above absorbent.

Prepn. of a material useful as an absorbent for nonionic surfactants comprises spray-drying an aq slurry comprising (I) and (II) in wt. ratio 1.0-10.0:1. Conditions are pref. such that the prod. is as above, partic. the temp. of the slurry is 40-70 deg. C and the air temp. at the drying tower inlet is 300-375 deg. C.

The prod. is also useful as a filler for detergent powders.
Opt. the slurry also contains 0.2-1.5 wt.% of film forming polymer to facilitate aeration and act as a binder. A pref. polymer is a copolymer of vinyl methyl ether and maleic anhydride. (2pp)

CARR- ★ D25 60868 D/34 ★GB 1595-903
Textile cleaning and softening detergent compsn. - contg. nonionic detergent, quat. ammonium softening agent, tert. amine oxide and alkali metal phosphate and/or silicate

CARR DAY MARTIN LTD 15.04.77-GB-015815
E19 (E34) (19.08.81) C11d-01/62 C11d-03/04 C11d-10/02
20.02.78 as ----- (949HM)

Textile cleaning and softening detergent compsn. comprises a nonionic detergent (I), a quat. ammonium softening agent (II), a tert. amine oxide (III) and (IV) an alkali metal phosphate and/or silicate. Pref. compsn. is in the form of a dry powder comprising 10-20% (I), 5-15% (II), 1-5% (III) and 40-84% (IV). Pref. (IV) comprises a complex alkali metal phosphate and a complex alkali metal silicate, each at 20-50% on wt. of total compsn.

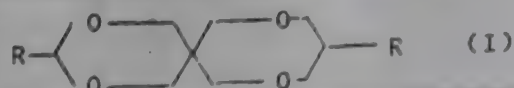
Partic. useful for cleaning denim articles, e.g. jeans, either by hand or by machine. (3pp)

BADI D25 63630 A/36 = GB 1596-213
Cyclic acetal cpds. prepd. from pentaerythritol and aldehyde(s) - used as foam-inhibitors for detergents contg. anionic surfactants

BASF AG 24.02.77-DE-707875
E13 (19.08.81) *DE2707-875 C11d-03/20 + C07d-319/10
23.02.78 as 007238 (945DJ)

Cyclic acetals of formula (I) are new, where R is 7-15C alkyl. They may be prepd by reacting pentaerythritol with 8-16C alkanol. suitably mole ratio of the reactants is 1:2-2.5 respectively and reaction is effected at 35-180 deg C in the presence of an acid catalyst and solvent. A mixt of alkanols may be reacted to form a mixt of acetals.

Cpds (I) are used as anti-foam agents in detergent and cleaning compsns contg anionic surfactant. Suitably, 0.5-20 wt% (I) is employed based on the total surfactant content. Frothing over at 85-95 deg C, even when using very soft water and with alkane sulphionate-nitrado triacetic acid systems is prevented. (7pp)



PROC D25 74412 A/42 = GB 1596-238
Bleach compsn. contg. sulphonated zinc phthalocyanine photoactivator - used for cotton by soaking then drying in light and air

PROCTER & GAMBLE CO 28.03.77-CA-274869
A97 E23 F06 (19.08.81) *BE-865-371 D06l-03/02
28.03.78 as 012012 (931BZ)

A detergent bleach compsn. comprises an organic surfactant and a photoactivator contg. 0.003-0.025wt.% of sulphonated zinc phthalocyanine w.r.t. to the compsn.

Pref. the photoactivator comprises 90% or more of zinc phthalocyanine tetrasulphonate and zinc phthalocyanine trisulphonate to balance, such that the photoactivator comprises 0.010-0.016wt.% of the compsn. The organic surfactant comprises 10-50wt.% of the compsn., and is an anionic, nonionic, semi-polar, ampholytic or zwitterionic surfactant. The compsn. further contains 10-60wt.% of an alkaline detergent builder.

The compsn. is esp. used for removing oxidisable stains from cotton fabrics by adsorbing the photoactivator onto the fabric and drying in the presence of visible light and O₂. (11pp)

COLG D25 55106 A/31 = GB 1596-250
Conc. non-gelling textile softening compsns. - contg. cationic softener, water and alkali metal nitrate or nitrite

COLGATE PALMOLIVE CO 28.03.77-US-777993
E34 F06 (19.08.81) *BE-865-245 D06m-13/46
23.03.78 as 011720 (931BZ)

A conc. fabric compsn. which is viscosity-stable at room temp. and has viscosity 100-1500 cP, comprises 0.01-5wt.% (pref. 0.1-1.5wt.%) of an antigelling agent, and 8-20wt.% (pref. 15-19wt.%) of a cationic fabric softening agent, and water to balance.

The antigelling agent is an alkali metal nitrate or -nitrite. The softening agent is a quat. ammonium salt or a quat. imidazolium salt. The prepn. comprises dissolving the antigelling agent in water, then adding the softening agent.

The prod. is esp. used during the wash and rinse cycles of automatic laundry operations. (4pp)

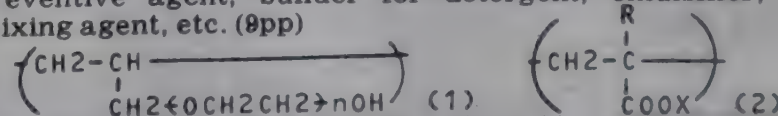
JAPC ★ D25 61052 D/34 ★J5 6081-320
Block copolymer prepn. - from polyethylene glycol mono:allyl ether and methacrylic or acrylic acid

NIPPON SHOKUBAI KAGAKU 05.12.79-JP-156827
A14 L02 (A25 A93 A97) (03.07.81) C08f-02 C08f-216/18 C08f-220/02

05.12.79 as 156827 (57BZ)
The new block copolymer comprises repeating unit (A) of formula (1), (where n is 5-100), and repeating unit (B) of formula (2), (where R: H or methyl gp; X: H, monovalent metal, divalent metal, ammonium gp. or organic amine gp), with wt. ratio of (A) to (B) is 5:95-60:40.

Its mfg. process comprises copolymerising polyethylene glycol monoallyl ether of formula CH₂=CHCH₂OCH₂CH₂nOH (3) (where n is 5-100), and (meth)acrylic acid type monomer of formula CH₂=CR₁COOX (4) (where, R₁ is H or methyl gp; X is H, monovalent metal, divalent metal, ammonium gp. or organic amine gp.), using polymerisation initiator and if necessary, neutralising the copolymerised product with alkaline substance.

The block copolymer shows excellent property, when it is used for dispersing agent for various pigments, chelating agent, scale preventive agent, builder for detergent, emulsifier, cement mixing agent, etc. (8pp)



CHIN ★ D25 D/34 ★J5 6081-398
Carboxyl-contg. hard water-resisting surfactant
CHINOIN GYOGYSZER 26.10.79-HU-013123
(03.07.81)

LIOY ★ D25 61132 D/34 ★J5 6081-555
Lowering Kraft point of 2-hydroxyalkane sulphionate - by adding inorganic magnesium salt to aq. soln.

LION CORP 09.07.79-JP-086584
E17 (03.07.81) C07c-143/10 C11d-01/12
09.07.79 as 086584 (75DJ)

A method of lowering the Kraft point of 2-hydroxyalkane sulphionate, comprises adding an inorganic magnesium salt to an aq soln of 10-18C 2-hydroxyalkane sulphionate in a ratio of 0.1-5mol relative to 1 mol of the sulphionate.

As 2-hydroxyalkane sulphionate is supposed to be used as a surfactant, it is usually in the form of alkali metal salts such as Li salt, Na salt or K salt, or alkaline earth metal salts such as Mg salt, Ca salt or Ba salts. As the inorganic magnesium salt, there may be used magnesium chloride, iodide, sulphate or carbonate.

Kraft point of 2-hydroxyalkane sulphonate can be lowered about 30 cm in appearance. (3pp)

SANN ★ D25 61340 D/34 ★ J5 6082-895
Anionic surfactant compsn. for liq. detergent - with sulphosuccinate monoester and polyoxyethylene higher fatty acid amide gps.

SANYO CHEM IND LTD 11.12.79-JP-161284

A97 (D21) (06.07.81) C11d-01/12

11.12.79 as 161284 (126HM)

Surfactant compsn. for liq. detergent contains an anionic surfactant with sulphosuccinate monoester salt and polyoxyethylene higher fatty acid amide gps. Cpd. obtd. by adding ethylene oxide to lower alkanolamide of higher fatty acid having below 15 total amine value (or below 10) in the alcoholic part of the sulphosuccinate monoester is pref'd. The lower alkanolamide of higher fatty acid is pref. lauric acid monoethanolamide, lauric acid isopropanolamide, coconut fatty acid monoethanolamide, or coconut fatty acid isopropanolamide. The mol. ratio of ethylene oxide to lower alkanolamide of higher fatty acid is pref. 1:0.5-1:5. The content in the anionic surfactant of sulphosuccinic monoester salt pref. 5-30 wt.%. The compsn. is a liq. detergent for washing up or a shampoo.

Since the compsn. contains an anionic surfactant with sulphosuccinic ester salt of high purity and light colour, desired colouring of the liq. detergent is possible. The prod. has superior storage stability and has only slight irritative effect on the skin and mucous membrane of the eye. It is suitable for use as detergent for washing up, for body, hands, skin, etc. (5)

SANN ★ D25 61341 D/34 ★ J5 6082-896
Prepn. of surfactant - by reacting alcohol ester of fatty acid with more than equimolar amt. of alkanolamine in the presence of catalyst, etc.

SANYO CHEM IND LTD 11.12.79-JP-161287

A96 E16 (D21) (06.07.81) C07c-102/06 C07c-103/38 C07c-139 C07c-143/16 C11d-01/72

11.12.79 as 161287 (126AT)

Polyoxyalkylene type surfactant having pale colour and of formula $R_1CONHCH_2CH(R_2)O(AO)_nH$ (I) is prep'd. by reacting a lower alcohol ester of a higher fatty acid (e.g. methyl laurate, ethyl ester of coconut oil fatty acid, or methyl stearate) with more than equimolar amt. of alkanolamine in the presence of an alkali metal catalyst or alkali metal cpd. catalyst (e.g. sodium methylate), removing the excess alkanol-amine and reacting with alkylene oxide (e.g. ethylene oxide) at 60-100 deg.C. R_1 is 6-22C higher fatty acid residue, R_2 is H or methyl; AO is 2-3C oxyalkylene residue; n is 1-50.

Sulphosuccinate type anionic surfactant of formula (II) and/or (III) is prep'd. by reacting a higher fatty acid ester with more than equimolar amt. of alkanolamine in the presence of an alkali metal catalyst or an alkali metal cpd. catalyst, removing the excess alkanolamine, and reacting the prod. with an alkylene oxide at 60-100 deg.C to obtain a polyoxyalkylene deriv. of formula (I), and further reacting (I) with maleic acid or its deriv. and a sulphite. M_1 and M_2 are H, alkali metal, ammonium, or hydroxyalkyl ammonium.

The anionic surfactant obtd. by this invention has very pale colour and contains a quite small amt. of impurities. Therefore, it has very mild effect on the mucous membrane and skin, and is suitable as a detergent for the use in the kitchen, shampoo, or cosmetics. (5pp)

SHELL D25 12801 T/08 = J8 1032-300
Carboxylic acids - by reacting olefins with carbon monoxide and water in presence of nickelcobalt iodide

SHELL INT RES MIJ BV 14.08.70-GB-039410

E17 (27.07.81) *BE-771-164 C07c-51/14 + B01j-27/08

12.08.71 as 060689 (KB)

An olefinically unsatd. cpd. an alcohol, an ether and/or a carboxylic ester are reacted with carbon monoxide and water, in the presence of at least 0.002 mole NiI_2 , CoI_2 and/or their precursors per mole H_2O , at 110-240 deg.C and 15-150 atm., the temp. and the molar ratio NiI_2/H_2O or CoI_2/H_2O being correlated.

Esp. useful for prep. of 16-19C acyclic alpha-methylcarboxylic acids, whose sodium salts are used in detergent compsn.

Practically quantitative yields of carboxylic acids are obtd. in shorter reaction times e.g. 2-5 hrs. at considerably lower temps. and pressures than formerly used. (J47004765) (7pp)

UNIL D25 74793 T/47 = J8 1032-359
Washing powders - contg bleaching agent and encapsulated bleach precursor

UNILEVER NV 30.04.71-GB-012379

(27.07.81) *NL7205-8/1 C11d-03/39

26.04.72 as 088614 (BZ)

Washing powders contg. a bleaching agent which releases H_2O_2 and a bleach precursor material with a particle size of 0.3-3.00 mm. comprising at least 40% bleach precursor which passes a 0.15 mm. sieve and a carrier and opt. also a dispersing agent, encapsulated in a protective dispersible coating. Suitable precursors are succinic anhydride, phthalic anhydride, tetraacetylene diamine, etc. encapsulated in PVA, cellulose ethers, (meth)acrylic acid copolymers, dextrine plasticised with sucrose, urea or glucose. Suitable bleaching agents are Na perborate, Na percarbonate, etc. The bleaching agent and encapsulated precursor are mixed into standard alkaline washing powder mixes giving good bleaching action at low washing temps. but with good protection of the precursor from the alkaline reagents. (J49045916)

RECK D25 02418 D/03 = US 4282-109
Aq. thickened bleach compsn. - contg. alkali metal hypochlorite, and surfactant blend of amine oxide and alkali metal alkyl sulphate

RECKITT & COLMAN PROD 30.05.79-GB-018721

E16 (E12 E34) (04.08.81) *EP--21-581 + C11d-07/54

15.05.80 as 149974 (931HM)

Thickened bleach compsn. comprises an aq. soln. of alkali metal hypochlorite and 0.25 wt.% or more of a thickening amt. of a surfactant blend. The blend comprises an amide oxide of formula

$R_1R_2R_2NO$ (I)

and an alkali metal alkyl sulphate R_3-O-SO_3M , in wt. ratio 3:4 or more. In the formulae, R_1 is a 10-18C alkyl, R_2 is a 1-3C alkyl, R_3 is an 8-12C alkyl, and M is Li, Na or K. The compsn. has a viscosity of 60-80 cP.

A measure of control is afforded over the physical properties of the compsn., esp. the Cloud point, which assist the maintenance of the desired cleansing properties even after prolonged storage. (5pp)

UNIL ★ D25 62146 D/34 ★ US 4282-156
Alpha-(di:alkyl hydroxy:malonyl) succinic acid, gamma lactone - intermediates for sequestering agents and/or detergent builders

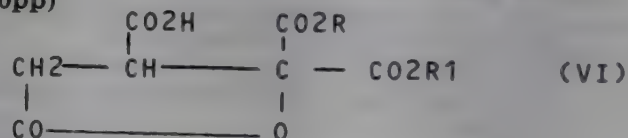
LEVER BROTHERS CO 01.04.80-US-136189 (18.12.78-US-970840)

E13 (04.08.81) C07d-307/32

01.04.80 as 136189 Div.ex. 970840 of 18.12.78 (478AT)

The lactones (VI) are new, where RR_1 are Me or Et.

(I) are intermediates in a new synth. of aconitic acids, and (allo)isocitric acids (and lactones) (food acids, etc.) the alkali metal salts of which are metal sequestering and/or detergent builders. (10pp)



INFL ★ D25 62206 D/34 ★ US 4282-274
Enhancing the aroma of fabric softeners - with mixt. of 2- and 3-cyclo:tetra:decen-1-one(s) and decanone

INT FLAVORS & FRAGR INC 27.06.79-US-052668 (26.12.78-US-973093)

E15 (D23) (04.08.81) C11d-17/04

27.06.79 as 052668 Div.ex 4183965 (478DJ)

The aroma of a fabric softener (paper or cloth substrate; waxy cationic or nonionic coating; and outer fabric softening coating) is augmented or enhanced by mixing with the outer coating a mixt. of the 3 cyclic ketones (I). Where one of dotted lines is double bond, or both are single bonds).

The mixt. is prep'd. by reacting pyrrolidine deriv. of formula (II) with propargylic acid ester of formula $HCC-COOEt$ by 3 step process. The amt. of (I) added is e.g. 0.05-5%. The parent patent claims the use of the cyclic ketone mixt. to depress the bitter taste of coffee, hops and artificial sweeteners.

The (I) mixt. imparts an intense sweet musk fragrance with exaltone-like, scorched linen, waxy and rooty nuances to fabric softener compsns. (19pp)



- AAZC= 25.10.78 AS AZERB CHEM ADMIX D23 E14 *SU -785-291
Di-tert.-butyl-hydroxy-benzyl para-amino-phenol prepn. - 61817D/34
- ABBO 26.09.79 ABBOTT LABORATORIES B03 C02 D22 E13 =US 4282-211
1-Epi-2-desoxy-fortimicin derivs. - 29288D/17
- AGEN 09.09.76 AGENCY OF IND SCI TECH A97 B04 D16 *J5 6082-093
Fixation of enzyme by irradiation - 61220D/34
- AGEN 07.12.79 AGENCY OF IND SCI TECH D15 (D16) *J5 6081-176
Treatment of refuse contg. paper - 61036D/34
- AGRI= 20.01.78 AGRIC ELECTRIF RES D15 (D16) *SU -785-231
Anaerobic fermenter for organic waste matter - 61757D/34
- AGRI= 08.02.79 AGRIC ENG RES INST D14 *SU -786-969
Machine for removing leaves of onions - 61989D/34
- AJIN 06.10.73 AJINOMOTO KK B02 D16 =J8 1031-956
5'-Purine nucleotides produced by Nocardia or Planococcus - 71523W/43
- AJIN 18.10.77 AJINOMOTO KK D13 =J8 1031-940
Water-swellable dried food of high protein content - 46510B/25
- AJIN 06.12.79 AJINOMOTO KK B02 D16 *J5 6082-098
Purine nucleoside-5'-mono:phosphate prodn. - 61224D/34
- AJIN 10.12.79 AJINOMOTO KK B05 D16 E16 =J5 6082-096
Prodn. of L-glutamic acid - 46252D/26
- AJIN 27.12.79 AJINOMOTO KK B05 D16 *FR 2472-610
Fermentative L-glutamic acid prodn. - 60837D/34
- AKMI= 31.07.78 AS KAZA MICROBIOLOGY A97 D15 (D16) *SU -785-229
Biochemical removal of flotation agents from metallurgical effluent - 61755D/34
- AKMI= 15.12.78 AS KAZA MICROBIOL D16 H04 *SU -785-357
Micrococcus aurantiacus variety Micrococcus rubescens 53 - 61880D/34
- ALBE- 26.04.79 ALBERTA GAS CHEM IN D13 E17 =GB 2068-705
Cold water-soluble fumaric acid compsns. - 86325C/48
- ALBE- 20.11.79 ALBERTA PROVINCE D15 H01 *US 4282-103
Treating tar sand tailings for solids removal - 62122D/34
- ALFA 01.10.79 ALFA-LAVAL AB D16 =DK 8004-138
Ethanol prodn. - 28421D/16
- ALKU 11.01.80 AKZO NV B04 D16 S03 =NL 8000-173
Qualitative and quantitative immunoassays - 55418D/31
- *ALZA 04.02.80 ALZA CORP B07 D22 *EP --33-615
Sustained-release bandages - 60766D/34
- AMFI 21.04.78 AMERICAN FILTRONA CORP D18 F07 =US 4281-671
Cigarette filter additives carried on preimpregnated threads - 64740B/36
- *AMLA= 22.02.79 AS MOLD APPLD PHYS D14 X25 *SU -786-966
Electro-plasmolyser for vegetable raw materials - 61986D/34
- *AMMA 09.08.79 AMF INC A97 D16 (D13) *US 4282-261
Removal of haze precursors from beverages - 62199D/34
- *AMST- 08.02.80 AMER STERILIZER D22 E17 *US 4282-179
Low temp. disinfection with isopropanol - 62159D/34
- AMUR= 20.11.79 AMUR CELLULOSE-CARTON CO D15 =FI 8003-603
Recovery of waste-water residues contg. activated sludge biomass etc. - 50295D/28
- ANDE- 08.11.76 ANDERSON INT CORP C03 D13 =GB 1596-164
Mechanically hydrolysing keratinous material esp. feathers - 19731A/11
- ANIS 14.06.78 ANIC SPA A11 B04 D16 F06 (B07 D13 D22 F09) =US 4282-351
Chitosan-glucan complex from fungal mycelium - 00225C/01
- *ANTI= 29.12.78 ANTIBIOTICS RES INS D16 *SU -785-356
Biologically active product immobiliser - 61879D/34
- *ANTY/ 12.10.79 ANTYPAS P G D22 *US 4281-647
Inflatable bandage splint for human hand - 62017D/34
- ANVR 30.06.72 AGENCE NAT VALOR SA D15 J01 =J8 1032-003
Removing emulsified oil from water - 23460V/13
- *ANVR 28.12.79 AGENCE NAT VALORISATION B03 D16 *FR 2472-607
Pyridine type enzyme co-factors regeneration system - 60836D/34
- *ANVR 04.02.80 AGENCE NAT VALORISATION D16 *EP --33-702
2-Nitro substd. naphtho:furan derivs. - 60796D/34
- *ARKH= 03.05.78 ARKHAN FOREST TECH D15 *SU -785-233
Waste water biological treatment active slime - 61759D/34
- *ASBI= 05.12.78 AS USSR BIOL INSTR D16 S03 *DD -148-447
Microorganism disintegrator - 60507D/34
- ASPR 31.05.78 NICHOLAS PTY LTD A96 B04 D21 (A11) =US 4282-204
Inhibition of dental caries with cationic polysaccharide - 71825B/40
- ATAR- 04.02.80 ATARA CORP D15 #EP --33-407
Liq. circulation device submerged in liq. - 12736C/07
- *AUCO= 28.08.78 AS UKR COLLOIDAL CHEM D15 F09 J03 X25 *SU -785-211
Electrolyser for cleaning paper-making aq. effluent - 61737D/34
- *AUCO= 29.12.78 AS UKR COLLOID CHEM D16 *SU -785-358
Achromobacter eurydice TK microbial strain - 61881D/34
- *AUCO= 18.04.79 AS UKR COLLOID CHEM D16 E24 *SU -785-359
Pseudomonas aeruginosa microbial strain - 61882D/34
- *AZAZ 20.06.78 AZERB AZIZBEKOV PETROCHE D15 J01 *SU -784-909
Boiler feed water purificn. cation exchanger - 61673D/34
- AZIC 11.02.74 AZIENDE COLORI NAZIONALI D18 E21 F06 =CH -624-424
Direct azo dyes from 4,4'-diamino benzanilide - 55991W/34
- *AZOV= 23.02.79 AZOV BLACK SEA FISH D12 *SU -786-961
Smoking equipment for food prods., e.g. fish or meat stuffing - 61984D/34
- BADI 24.02.77 BASF AG D25 E13 =GB 1596-213
Cyclic acetal cpds. prepd. from pentaerythritol and aldehyde(s) - 63630A/36
- BAKZ 14.12.73 BAKER RES & DEV CORP D11 E19 =J8 1031-930
Oxidizer compsn. for bread making - 63160W/38
- BALS/ 16.05.79 BALSSE C C03 D13 (C04) =FR 2472-413
Agglomeration of materials with animal blood - 90114C/50
- *BARA/ 30.10.78 BARABANOV V I D15 *SU -787-062
General purpose water cleaner - 62000D/34
- *BATT 30.01.80 BATTELLE MEMORIAL D13 *EP --33-718
Heat resistant chocolate compsns. - 60802D/34
- BAUM- 04.04.77 BAUMGARTNER PAPIER SA A97 D18 (A14 A81) =US 4281-591
Cigarette filter cover strip - 49875A/28
- *BAXT 28.01.80 BAXTER TRAVENOL LAB B04 D16 *WP 8102-105
Prodn. of activated prothrombin complex concentrates - 62289D/34
- *BEAF 01.02.80 BEATRICE FOODS CO D13 *WP 8102-089
Reconstitutable coconut food-flavouring material prodn. - 62283D/34
- BEEC 13.08.74 BEECHAM GROUP LTD A97 B04 D16 =CH -624-431
Supported enzymes recoverable from aq. media - 14942X/09
- BEEC 22.11.79 BEECHAM GROUP LTD B04 D16 #FI 7903-661
Pharmaceutical compsn. contg. fibrinolytic enzyme deriv. - 27702C/16
- BENC 22.06.78 BENCKISER KNAPSACK D13 E17 (D17) =EP G006-592
Poly:alcohol esp. xylitol prepn. - 03828C/03
- BERK/ 29.12.79 BERKES K D13 =DD -148-491
Continuous chocolate compsn. prepn. - 49994D/28
- *BETZ 28.04.80 BETZ LABS INC D15 E14 *US 4282-111
Removal of oxygen in aq. boiler condensate steam systems - 62127D/34
- *BIDE- 03.01.80 BIDEECO BV D13 *NL 8000-015
Peeling potatoes and other tubers - 61618D/34
- *BIED/ 13.11.79 BIEDERMANN H D11 *FR 2472-344
Struts assembled for supporting decorative foods e.g. cakes - 60808D/34
- *BIOR- 07.12.79 BIORESEARCH CEN KK D16 E17 *J5 6082-095
Fermentative prodn. of fatty acid - 61222D/34
- *BOBR/ 25.09.78 BOBROVNIK V M D15 T06 *SU -785-216
Controlled coagulation treatment at e.g. water purificn. plant - 61742D/34
- *BOEF 05.02.80 BOEHRINGER MANNHEIM GMBH D16 E17 J04 *EP --33-540
Glycerol enzymatic determination - 60733D/34
- BOEH 29.07.75 CELA MERCK GMBH B03 C02 D22 =CH -624-274
(1)-Acylamino-(2,2,3)-trichloropropyl-triazoles and -imidazoles - 09294Y/06
- *BONN/ 08.01.80 BONN L D21 *NL 8000-085
Antiperspirant compsn. for skin application - 61622D/34
- *BONZ/ 27.12.79 BONZAGNIG D13 *FR 2472-347
Ice cream mixing bowl for small batch prodn. - 60810D/34
- BRAS- 05.02.80 BRASSERIES KRONENBO D16 S03 =EP --33-709
Bottle filler to sample beer from fermenting vessel - 44105D/25
- BRIM 09.02.76 BRISTOL MYERS CO D21 E16 =DS 2704-343
Hair brightening and dyeing compsn. - 57517Y/33
- *BRIM 18.12.78 BRISTOL MYERS CO B02 C02 D13 *US 4282-150
2,6-Di:substd. penem cpds. - 62143D/34
- BRIM 14.01.80 BRISTOL MYERS CO D13 =US 4282-265
Easily assimilated fat compsn. for infant feeding - 55647D/31
- BRIM 23.01.80 BRISTOL MYERS CO A96 D21 =BR 8100-183
Method of permanent waving and conditioning - 56983D/32
- *BRIN- 03.01.80 KONINKL BRINKERS MA D11 *NL 8000-030
Dough rolling machine has rotating rollers - 61619D/34
- *BRLE- 11.02.80 BRIT LEATHER MFRS R A82 D18 *GB 2068-999
Use of polyvalent metal(s) as tanning agents - 60962D/34
- *BRT0 08.01.73 BOC LTD D15 *GB 1596-246
Treating sewage flowing through gravity sewer - 60876D/34
- *BRUC/ 01.02.80 BRUCKER C D15 *EP --33-681
Liq. aeration pump set for waste water purificn. - 60788D/34
- BUHL 24.06.77 BUHLER GEBR AG D23 =CH -624-313
Set gap seal for flaking rolls prodn. - 02181B/02
- *BURG- 29.01.80 BURGER SOHNE AG D18 *WP 8102-090
Isolated or breakable chewing-tobacco portions - 62284D/34
- *BURG/ 29.01.80 BURGERSTEINER M D18 *WP 8102-090
Isolated or breakable chewing-tobacco portions - 62284D/34
- BURR- 04.04.77 BURRUS F J & CIE A97 D18 (A14 A81) =US 4281-591
Cigarette filter cover strip - 49875A/28
- BUTI- 01.10.79 BUTINA APS G1 D12 =DK 7904-107
Anaesthetising chamber for animals to be slaughtered - 44521D/25
- CADB 01.02.78 CADBURY INDIA LTD D13 #GB 1595-706
Cocoa butter substitute - 60959B/33
- CADB 01.02.78 CADBURY INDIA LTD D13 #GB 1595-734
Cocoa butter substitute - 60958B/33
- CALG 07.01.76 CALGON CORP A97 D15 E11 J01 =CH -624-368
Preventing scale deposition in gas washing plants - 48768Y/28
- *CANT- 02.11.78 INST CANTACUZINO I B04 D16 *RO --76-361
Bacterial antigen preservation in powder form - D/34
- *CARD/ 28.12.79 CARDON J P D14 S03 X27 (S02) *FR 2472-741
Indicator to reveal temp. rise of refrigerated prod. - 60845D/34
- BADI 31.07.75 BASF AG A60 D25 E13 F06 =CH -624-393
2,2,6,6-tetramethyl-4-piperidine-1-ol

CARL-

- CARL-17.03.77 CARLE & MONTANARI S D13 S02 =SU-776-578
Automatic prod. wt. control for e.g. chocolate moulding machine - 57578Y/33
- *CARR-15.04.77 CARR DAY MARTIN LTD D25 E19 (E34) *GB 1595-903
Textile cleaning and softening detergent compsn. - 60868D/34
- *CART-10.10.79 CARTER L M MFG CO I D14 *US 4282-091
Vibrating screen particle classifier - 62116D/34
- *CART-04.02.80 CARTIER SA D13 *EP --33-670
Automatic demoulding of soft paste cheeses such as camembert - 60786D/34
- CEDE-11.07.77 CEDERROTHS AB D22 =US 4281-650
Adhesive medical plaster with impregnated gauze dressing - 80223A/45
- CELA 29.10.76 CELANESE CORP D15 H05 (H09) =CH-624-078
Treatment of aq. organic wastes in anaerobic filter - 32088A/18
- *CELA 06.02.80 CELANESE CORP D15 *BE-887-396
Continuous treatment of effluent water contg. organic impurities - 60442D/34
- CELA 06.02.80 CELANESE CORP D15 =GB 2068-929
Continuous treatment of effluent water contg. organic impurities - 60442D/34
- CEPA 20.11.79 CELLULOSE PAPER IND RES D15 =FI 8003-603
Recovery of waste-water residues contg. activated sludge biomass etc. - 50295D/28
- CESK 02.01.80 CESKOSLOVENSKA AKAD D13 J04 =NL 8007-105
Nickel-based catalyst e.g. for hydrogenating vegetable oils - 52130D/29
- CESK 02.01.80 CESKOSLOVENSKA AKAD D13 J04 =NO 8003-956
Nickel-based catalyst e.g. for hydrogenating vegetable oils - 52130D/29
- *CETU-25.06.79 CETUS CORP D16 E36 *US 4282-324
Continuous prodn. of iodine from brines and bitters etc. - 62234D/34
- *CHEM 08.02.80 CHEM WERKE HULS AG D25 E14 *DE 3004-651
Sulphonic acid separation from paraffin sulphoxidation prod. - 60646D/34
- CHEO 26.12.79 CHESEBROUGH PONDS INC D21 E34 (E36) =FR 2472-383
Improved cold waving or straightening of hair - 52180D/29
- CHIA 08.12.79 CHISSO ASahi HIRYO KK C03 D16 =J5 6082-880
Soil improvers contg. microbiologically active material - 44356D/25
- *CHIN 26.10.79 CHINOIN GYOGYSZER D25 *J5 6081-398
Carboxyl-contg. hard water-resisting surfactant - D/34
- CHIN 28.12.79 CHINOIN GYOGYSZER A97 D13 E14 =FR 2472-348
Reducing phenylalanine content of protein hydrolysates - 50271D/28
- *CHIN 29.12.79 CHINOIN GYOGYSZER C03 D13 *FR 2472-349
Prodn. of auto-degradable starch compsns. - 60811D/34
- *CHUS 13.03.71 CHUGAI PHARMACEUTICAL KK C03 D16 *J5 6081-511
Combating fall web-worm - 61107D/34
- CIBA 03.12.76 CIBA GEIGY AG A60 D21 E16 F06 (E13) =GB 1595-808
Textile softening and hair rinsing product - 40337A/23
- CIBA 00.00.77 CIBA GEIGY AG A97 D15 E17 F06 (A26 A87 E14 F09) =CH-624-254
Low foaming wetting agent compsns. - 96264X/52
- *CIBA 12.11.79 CIBA GEIGY AG B02 D16 *J5 6083-493
Cephalosporanic acid prodn. - D/34
- CLEV-13.12.77 CLEVEPAK CORP D15 #GB 1596-190
Sewage aeration device - 47376B/26
- *COFF-31.03.77 COFFEX AG D13 *CH-623-994
Decaffeination of aq. acidic caffeine solns. - 60487D/34
- *COLB 04.02.80 COLLABORATIVE RES INC B04 D16 S03 *GB 2069-133
Antigen or antibody labelled liposome contg. encapsulated enzyme - 60987D/34
- COLG 30.05.74 COLGATE PALMOLIVE CO A96 D25 =CH-624-297
Abrasive system for tooth-pastes - 72558W/44
- COLG 15.01.75 COLGATE PALMOLIVE CO A96 B05 D21 E11 =CH-624-009
Toothpaste or dental hygiene composition - 44105X/24
- COLG 18.11.76 COLGATE PALMOLIVE CO D22 =CH-624-281
Disposable diaper with edge fastening tapes - 06082A/03
- COLG 28.03.77 COLGATE PALMOLIVE CO D25 E34 F06 =GB 1596-250
Conc. non-gelling textile softening compsns. - 55106A/31
- COLG 04.10.79 COLGATE PALMOLIVE CO D25 E34 (E17) =DK 8004-165
Retarding gelification of suspensions contg. sodium bi:carbonate - 11800D/08
- COLG 24.10.79 COLGATE PALMOLIVE CO D21 =J5 6081-514
Stabilising carrageen cosmetic compsn. e.g. tooth paste - 36518D/21
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 =GB 2068-726
Dentifrice compsns. based on aq. sorbitol - 53443D/30
- COLG 19.12.79 COLGATE PALMOLIVE CO B06 D21 E34 (E33) =GB 2068-727
Dentifrices which aid remineralisation of enamel - 30832D/18
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) =GB 2068-997
Soap bars contg. anti cracking agent - 32609D/19
- *CONF= 07.02.79 CONFECTION IND RES A97 D13 *SU-786-963
Jellied confectionery prodn. - 61985D/34
- *COOP-21.01.80 COOP AGRIC PROD B04 C03 D13 (D21) *WP 8102-106
Prodn. of biologically active product from bee drone larvae - 62290D/34
- COOX 14.12.79 COORS PORCELAIN CO A96 D21 L02 =FI 8003-894
Method of mfr. of dental appliance - 48114D/27
- CORG 13.09.79 CORNING GLASS WORKS B04 D16 =US 4282-315
Isolating specific population gps. of viruses - 25730D/15
- CORG 13.12.79 CORNING GLASS WORKS D16 (D13 D17) =FI 8003-837
Disinfecting immobilised enzyme compsns. - 46417D/26
- *CORP 30.01.80 CPC INTERNATIONAL INC D13 *EP --33-635
Cheese spreads prodn. with good shelf life - 60776D/34
- *CORP 05.02.80 CPC INTERNATIONAL INC A97 D16 (D17) *GB 2068-974
Prepn. of immobilised glucose isomerase - 60948D/34
- *COXD-06.02.80 COX DENHOLM LTD D11 *GB 2068-714
Movable rack for baking trays - 60879D/34
- *CREA-27.12.79 CREATIV-PATENTANST D15 *DE 3045-850
Sewage sludge composting plant - 60676D/34
- *CSME= 06.11.75 CONS MATERIAL WORK D15 *SU-785-213
Industrial aq. waste purificn. settler - 61739D/34
- *DAKA-31.01.80 DAKA DANSKE ANDELSS C03 D13 *EP --33-519
Mfg. powdered protein prods. from animal material - 60723D/34
- *DAVI/16.03.81 DA COSTA DAVID J A D22 *BR 8101-534
Sterilising receptacle for feeding bottle - D/34
- *DEAK 06.07.79 AKAD WISSENSCHAFT DDR D16 H04 *DD-148-465
Microbial protein prodn. from methane - 60519D/34
- *DEAK 15.11.79 AKAD WISSENSCHAFT DDR D12 *DD-148-437
Protein hydrolysate prodn. from fish - 60503D/34
- DEGM 17.09.76 DEGEMONT SA D15 =CH-624-079
Packaged plant for physicochemical purification of waste water - 04212A/03
- DELA/17.04.78 DELAUNAY J P C04 D15 =EP G005-113
Deodorising treatment for pig excrement - 79472B/44
- DEMC/27.12.77 DEMCENKO P P D23 J01 =DD-148-444
Separator for dividing water from organic solvents - 33377B/18
- *DEPH-18.01.80 DEPHARMA AG C03 D22 *EP --33-448
Foot protection e.g. an insole, disposable slipper or floor mat - 60705D/34
- *DESO-06.02.80 DESOWAG-BAYER HOLZS C03 D22 E15 *DE 3004-234
Tree wound-sealing and-protecting agents - 60598D/34
- DEUS 29.12.79 DEGESCH GMBH D13 #DD-148-490
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- DIST 29.04.77 DISTILLERS CO LTD D16 =US 4282-259
Bitter essence extn. from hops - 63484A/36
- *DIST-01.02.80 DISTRIVAL SA B04 C03 D13 (D21) *EP --33-694
Stabilised animal protein hydrolysate compsn. prodn. - 60794D/34
- *DNEN= 06.12.78 DNEPR ENG CONS INST D15 *SU-785-217
Open hydraulic cyclone type aq. waste settler - 61743D/34
- *DNME= 06.12.78 DNEPR METALLURG WKS D15 *SU-785-217
Open hydraulic cyclone type aq. waste settler - 61743D/34
- *DOJI-07.12.79 DOJIN KAGAKU KENKYU A91 D15 *J5 6081-447
Determin. of water hardness by ion exchange resin - 61099D/34
- *DUPO 09.10.79 DU PONT DE NEMOURS CO D16 E17 *US 4282-323
Recovery of lower carboxylic acids from aq. salt solns. - 62233D/34
- DUPO 05.11.79 DUPONT CANADA INC D13 =J5 6081-104
Sepn. of endosperm from comminuted oat bran - 36700D/21
- *DUSS-20.09.77 DUSSY & CO D22 S05 *CH-624-012
Lavatory door handle steriliser - 60490D/34
- DYNL 25.10.72 DYNAPOL A97 D13 =J8 1031-944
Flavouring agents - 17383V/10
- EART-10.12.77 EARTH CHEM KK C03 D22 =RO --76-255
Insecticidal and fungicidal fumigation without combustion - 72820A/41
- EAST 25.03.74 EASTMAN KODAK CO B04 D16 S03 S05 =J8 1031-958
Aqueous test solution for cholesterol assay - 37344W/22
- EGOS/30.05.78 EGOSID D15 =US 4282-070
Generating heat, cooling capacity and pure water - 89740B/50
- EISA 12.01.80 EISAI KK B05 D16 (B03) =NL 8100-110
Terpenoid(s) having antiulcer activity - 36369D/21
- *ELEC-13.12.72 INTR ELECTROMETAL D15 *RO --72-747
Closing cap for self-siphoning capsules, etc. - D/34
- *ELED 05.12.79 DENKI KAGAKU KOGYO CO D17 (D16) *J5 6082-097
Glucose prodn. in high yield - 61223D/34
- ELIL 13.12.79 ELI LILLY & CO B02 C02 D22 =FI 8003-870
Re-acylated derivs. of cyclic peptide antibiotics - 45990D/26
- ELVI-04.02.80 ELVI SPA B04 D16 =DE 3021-259
Improved Trinders reagent for measuring hydrogen peroxide - 60708D/34
- *ELVI-04.02.80 ELVI SPA B04 D16 *EP --33-462
Improved Trinders reagent for measuring hydrogen peroxide - 60708D/34
- *ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 *GB 2068-927
Recovery of metals from low concn. aq. solns. - 60922D/34
- *ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 *GB 2068-928
Recovery of metals from low concn. aq. solns. - 60923D/34
- ENIE-01.02.80 ENI ENTE NAZ IDROCA D16 (D17) =GB 2068-972
Alpha-galacto:oxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- *ENTR-29.04.80 ENTREMONT SA D13 *BE-888-232
Producing butter-fat by removing water and protein from butter - 60454D/34
- ENVI 14.02.77 ENVIROTECH CORP D15 J01 =GB 1596-122
Separating solids from liquids - 79183Y/44
- *ESMI-05.02.80 ESMIL BV D15 J01 *EP --33-575
Controlling liq. level in evaporation compartments - 60744D/34

* ESSO 20.11.79 ESSO RESOURCES CANADA D15 H01 *US 4282-103
Treating tar sand tailings for solids removal - 62122D/34

FARB 09.10.76 BAYER AG D15 =CH-624-367

Evapn. then pyrolysis of heavily polluted industrial effluent - 26956A/15

FARB 17.12.77 BAYER AG A97 D15 F09 (A26) =EP G002-475

Water-soluble amido-poly:amine cpds. for use in paper mfr. - 47346B/26

FARB 23.02.79 BAYER AG B04 D16 =US 4282-320

Glycoside hydrolase inhibitor 1-deoxy-nojirimycin prodn. - 62657C/36

FARB 08.10.75 HOECHST AG A97 D25 E34 =CH-624-442

Textile washing process using surfactant washing powder - 25278Y/15

FARB 22.01.76 HOECHST AG A60 C03 D25 E11 =CH-624-411

Dry acidic orthophosphoric acid ester salts prodn. - 54258Y/31

FARB 02.03.76 HOECHST AG D16 J02 (D15) =CH-624-309

Mass transfer in liq. medium improved by inert solid particles - 63043Y/36

FARB 19.01.77 HOECHST AG B04 D16 =US 4282-318

Alpha-amylase inhibitor for treating diabetes and obesity - 53463A/30

FARB 23.02.79 HOECHST AG D18 (D16) =US 4281-997

Dubbing leather and pelts - 64300C/37

FARB 17.11.79 HOECHST AG A96 D22 =J5 6083-355

Wound and burn dressing - 40366D/23

FARB 14.12.79 SOC FRANC HOECHST A91 D15 J01 (A14) =FI 8003-859

Powdered cationic polyelectrolyte - 48286D/27

* FATS= 10.04.79 FATS RES INST A88 D23 J01 *SU-785-209

Oils and fats refining aq. effluent purificn. by ultrafiltration - 61735D/34

* FEPU 16.11.76 FERR METAL EFFL PURIF D15 *SU-785-214

Industrial aq. effluent settler water collector tank - 61740D/34

* FERM= 02.02.79 FERMENT PRODUCT RES D14 *SU-786-967

Sepr. of potatoes that have formed into clumps - 61987D/34

* FILM= 18.12.78 FILM MATERIAL SYNTH D18 *SU-785-360

Leather scrap grinder - 61883D/34

FILT 14.02.78 FILTERS INT INC A91 D15 #GB 1596-203

Water purificn., esp. of sewage - 36436A/20

FILT 14.02.78 FILTERS INT INC A91 D15 #GB 1596-204

Water purificn., esp. of sewage - 36436A/20

FILT 14.02.78 FILTERS INT INC A91 D15 #GB 1596-205

Water purificn., esp. of sewage - 36436A/20

FIRM 11.10.71 FIRMENICH SA D23 E15 (E13) =NL 8101-418

Tricyclic aliphatic cpds - 24454U/18

* FIRM 20.12.77 FIRMENICH SA D12 E13 *CH-623-996

Flavouring foods, etc., with pyrimidine derivs. - 60488D/34

FIVE 04.10.79 FIVES-CAIL BABCOCK D17 =DK 8004-183

Rotary drum for liq.-solid mass or heat transfer - 31198D/18

* FLET= 02.02.80 FLETCHER & STEWART D16 E17 *GB 2069-000

Organic compound production by fermentation of carbohydrate - 60963D/34

* FMCC 14.04.80 FMC CORP D13 E37 *US 4282-260

Inhibiting the prodn. of clostridium botulinum enterotoxin - 62198D/34

* FORE= 26.04.79 FOREST TECH IND RES D15 *SU-785-228

Bio-filter for liquid effluent - 61754D/34

* FORK/ 03.04.78 FORKNER JH D13 *US 4282-258

Moulding edible items from moist edible material - 62197D/34

* FREG= 06.12.79 FRANCE E & G KK D21 E12 *J5 6081-513

Skin foundation cosmetic - 61109D/34

FRRR 24.12.79 FERRERO P & CIA SPA D13 =FR 2472-346

Praline or chocolates contg. two types of filling - 30827D/18

FUJI 18.05.76 FUJISAWA PHARM KK D15 =J5 2139-268

Microbial treatment of waste water - 61572D/34

* FUJI 18.05.76 FUJISAWA PHARM KK D15 *J8 1031-155

Microbial treatment of waste water - 61572D/34

FULH 27.06.75 FULLER H B CO A96 D22 (A18) =DS 2628-890

Sanitary towel with components held by pressure sensitive adhesive - 02418Y/02

* FUSO 10.12.79 FUSO KAGAKU KOGYO K D21 E12 *J5 6083-415

Dentifrice for stiffening gingiva and treating pyorrhoea - 61361D/34

GABA 02.10.79 GABA INT AG A96 B05 D21 E32 (E19) =DK 8004-145
Oral compsn. contg. stannous salt and stabiliser - 27674D/16

* GEBE= 24.04.80 GEBERIT AG D15 *BE-888-280

Waste water discharge siphon with non-return flow fitting - 60468D/34

* GELL/ 13.03.78 GELLER D YU D15 *SU-785-204

Air separator for water - 61730D/34

GENE= 13.07.79 GENETICS & IND MICR B05 D16 E16 =DD-148-464

Rapid production of L:threonine - 29484D/17

* GENM 04.03.80 GENERAL MILLS INC D13 *US 4282-262

Two-packet dessert mixes - 62200D/34

GENO 10.06.74 GENERAL FOODS CORP B05 D13 E16 =CH-623-997

Cold-water soluble aspartic acid sweeteners - 75788W/46

GENO 04.10.79 GENERAL FOODS CORP C03 D13 =US 4282-254

Improving the palatability of dog food - 29394D/17

GENO 22.11.79 GENERAL FOODS CORP D13 #FI 7903-672

Flavoured food products, esp. coffees - 45124C/26

GEVA/ 22.06.78 GEVAERT O D13 =US 4281-593

Machine for cooking and expanding cereal prod. - 76403A/43

* GHOR= 16.05.79 GEOR HORTIC VINICUL D13 S02 *SU-782-753

Fruit skin gas permeability gauge - 61651D/34

GLSM 05.11.79 MARVIN GLASS & ASSOC D13 =NL 8020-394

Flat disc confectionery novelty - 40173D/22

GORA/ 04.10.79 GORANSON B D12 =NL 8020-372

Appts. for disintegrating and mixing foodstuffs - 32554D/18

* GORI= 05.04.79 GORKI RIVER FLEET MIN D15 *SU-785-212

Disinfection of natural and waste water - 61738D/34

GREC 28.12.79 GREEN CROSS CORP B04 D16 =FR 2472-609

Myelo:peroxidase isolation from human myelogenic leukocytes - 49988D/28

GREC 25.01.80 GREEN CROSS CORP A96 D22 #EP--33-402

Perfusate for preserving organs to be transplanted - 11125C/06

GREC 28.01.80 GREEN CROSS CORP A96 D22 #WP 8102-103

Perfusate for preserving organs to be transplanted - 11125C/06

* GROD= 05.04.79 GRODNENSK AZOT COMB A41 D15 E13 *SU-785-224

Caprolactam etc. mfg. plant aq. effluent purificn. - 61750D/34

* GROT= 04.01.80 VEB OTTO GROTEWOHL C03 D16 *DD-148-519

Plant growth stimulant bitumen emulsions - 60536D/34

HAGG 05.02.80 HAG AG D14 =DE 3004-162

Drying aromatiser-contg. liq. or paste prodn. - 60737D/34

* HAGG 05.02.80 HAG AG D14 *EP--33-549

Drying aromatiser-contg. liq. or paste prodn. - 60737D/34

HAJT 03.11.76 HAJTOMUVEK ESH FESH D15 J01 =SU-786-858

Oil-water emulsions treated by macro-filter and hydrocyclone - 35167A/20

HENK 22.11.75 HENKEL KG AUF AKTIEN A97 D25 =CH-624-427

Powder for dish washing machines for washing and rinsing - 36246Y/21

HENK 23.12.76 HENKEL KG AUF AKTIEN D23 E15 =GB 1595-957

1-Ethoxy-3,3,5-tri:methyl cyclohexane for use in perfume compsns. etc. - 45812A/26

HENK 23.12.76 HENKEL KG AUF AKTIEN D23 E15 =GB 1595-958

1-Ethoxy-3,3,5-tri:methyl cyclohexane for use in perfume compsns. etc. - 45812A/26

HENK 29.11.79 HENKEL KG AUF AKTIEN D21 E14 (E13) =FI 8003-435

1-Substd. 2-hydroxy-propyl 2,4-di:aminophenol-ether(s) - 44402D/25

HENK 30.11.79 HENKEL KG AUF AKTIEN A60 B05 D21 E19 (D22) =DE 2948-256

High purity vicinal diol(s) prepn. - 44406D/25

HENK 13.12.79 HENKEL KG AUF AKTIEN D21 E24 =FI 8003-587

Oxidn. dye-based hair-dyeing compsn. - 48041D/27

* HENK 08.02.80 HENKEL KG AUF AKTIEN D23 E13 *DE 3004-661

Alkyl-substd. 1,3-dioxolan used as perfume components - 60652D/34

HESS/ 13.12.79 HESSELGREN S G A96 D21 (A11) #J5 6083-413

Adhesive compsn. for dental prostheses - 00246C/01

* HESS/ 06.02.80 HESS G D23 J02 (J01) *DE 3004-223

Distribution of gases or vapours in liquids - 60595D/34

HITA 05.07.78 HITACHI KK D15 S02 =US 4282-093

Measuring size of floc in sedimentation tank - 15664C/09

HITA 29.09.78 HITACHI KK D15 J01 K08 =US 4282-092

Inorganic adsorbent for removing transition metals from hot water - 35514C/20

* HITA 07.12.79 HITACHI KK D22 J01 *J5 6081-121

Deodorising malodorous gas using two washing towers - 61021D/34

* HITA 14.12.79 HITACHI KK D15 E31 J01 M25 *J5 6084-320

Desorption of uranium from adsorbent - 61483D/34

HOFF 06.07.76 HOFFMANN-LA ROCHE AG D13 =CH-623-995

Hard caramel prepn. using xylitol - 02120A/02

* HOFF/ 08.05.79 HOFFMAN P H D12 *US 4281-436

Shrimp stripping machine - 62009D/34

HORN- 27.12.79 HORNBACH OHG A&W D15 =FR 2472-410

Apron mechanism for liq. circulation - 49942D/28

* HUMI/ 28.01.80 HUMISTON G F D15 *WP 8102-154

Sea-water desalination appts. - 62308D/34

ICHW 28.12.79 ICHIKAWA WOOLEN TEX LTD D15 =FR 2472-541

Sludge concn. and dewatering system - 52127D/29

* ILIE/ 21.01.80 ILIES N B04 C03 D13 (D21) *WP 8102-106

Prodn. of biologically active product from bee drone larvae - 62290D/34

* INCH- 18.06.79 INST IND CHIM ALIM D13 *RO--75-920

Aqueous root vegetable soln. extraction - D/34

* INDU= 10.01.79 INDUSTR PROD PROCES D16 *SU-785-355

Brandy spirit maturing unit - 61878D/34

INFL 11.11.76 INT FLAVORS & FRAGR INC D23 E15 =GB 1595-978

Unsaturated-acetyl-di:methyl-cyclohexane cpds. - 21425A/11

INFL 11.11.76 INT FLAVORS & FRAGR INC D23 E15 =GB 1595-979

Unsaturated-acetyl-di:methyl-cyclohexane cpds. - 21425A/11

INFL 11.11.76 INT FLAVORS & FRAGR INC D23 E15 =GB 1595-980

Unsaturated-acetyl-di:methyl-cyclohexane cpds. - 21425A/11

* INFL 20.10.78 INT FLAVORS & FRAGR INC B05 D21 E15 (B07 D12 D23)

*US 4282-205

Augmenting the taste of tooth pastes - 62174D/34

INFL

- * INFL 26.12.78 INT FLAVORS & FRAGR INC D25 E15 (D23) *US 4282-274
Enhancing the aroma of fabric softeners - 62206D/34
- * INFL 18.01.80 INT FLAVORS & FRAGR INC B05 D23 E15 *EP --33-604
Prepn. of methyl di:hydro-jasmonate and analogues - 60761D/34
- * INLE- 10.04.79 INTR IND LEGUMELOR D14 *RO --75-918
High protein foodstuff processor - D/34
- INMR 31.05.77 INST MERIEUX B04 D16 =DS 2823-750
Bacterial esp. *Bordetella pertussis* endotoxin fractionation - 00267B/01
- * INRG 01.02.80 INRA INST NAT RECH B04 D16 *EP --33-686
Recovering peptide and phospho-peptide from casein materials - 60791D/34
- INTE- 11.01.80 INTEROX C03 D13 =BR 8100-127
Compsn. for assisting food digestion in ruminants - 55470D/31
- * INTE- 07.02.80 INTEC IND ELECTRONI D15 E36 J04 S03 *DE 3004-494
Cell for measuring oxidant concn. in liquids - 60626D/34
- * INTO 06.11.79 INT PAPER CO A60 C01 D22 E11 *US 4282-366
Tri:subsid.-silyl-alkyl -alkyl-di:methyl-ammonium chloride salts - 62253D/34
- INTT 08.06.79 ITT INDUSTRIES INC D16 (D11) =J5 6082-091
Selective inactivation of protease in commercial alpha-amylase - 04117D/04
- * JAPC 05.12.79 NIPPON SHOKUBAI KAGAKU A14 D25 L02 (A25 A93 A97)
*J5 6081-320
Block copolymer prepn. - 61052D/34
- JONS/ 31.10.77 JONSSON URS B04 D16 S03 S05 =FR 2472-612
Prodn. of a stable prepn. having immunoglobulin binding properties - 40601B/21
- * KANE- 07.12.79 KANEBO KESHO-HIN KK D21 E13 *J5 6081-522
Topically administrable compsn. for diagnosing skin characteristics - 61114D/34
- * KANF 19.12.79 KANEGAFUCHI KAGAKU D16 *US 4282-328
Aerobic microorganism cultivating apparatus - 62238D/34
- * KANY/ 04.02.80 KANY M D15 *DE 3004-016
Refuse compositing toner - 60574D/34
- KAOS 29.03.76 KAO SOAP KK A96 D21 E19 (A25) =J8 1032-286
Transparent aq. hair rinsing compsn. - 74356Y/42
- KAOS 22.12.78 KAO SOAP KK A96 D21 E19 =US 4282-110
Soap contg. tri:chloro-hydroxy-di:phenyl ether antibacterial - 06033C/04
- * KAOS 10.01.80 KAO SOAP KK A96 D22 *GB 2068-968
Porous flexible sheet - 60945D/34
- * KATZ/ 28.04.76 KATZ J D15 J01 *US 4282-067
High volume liquid distillation - 62102D/34
- * KATZ/ 28.01.80 KATZ J D15 E17 J01 (D16) *WP 8102-088
Distillation of impure liq. at high vol - 62282D/34
- * KAWI 04.12.79 KAWASAKI STEEL KK D15 M14 *J5 6081-180
Steel material-colour checking waste liquor treatment - 61037D/34
- * KAZV = 07.09.78 KAZVODKANALPROEKT D15 *SU -785-215
Settler for liquid effluent - 61741D/34
- * KDFO = 14.02.79 KRASD FOOD IND RES D18 *SU -786-971
Control appts. for fermentation of tobacco - 61991D/34
- * KDPO = 05.12.78 KRASD POLY D12 S03 X25 *SU -785-705
Unit for controlling moisture content of food prods. - 61966D/34
- * KEME = 26.02.79 KEMER MEAT DAIRY IN D12 *SU -782-867
Meat mincer disc grid - 61654D/34
- KEND 05.12.79 KENDALL CO A14 D22 G02 (A82 A96) =J5 6082-839
Clear mixts. of PVP and acrylic copolymers - 82662C/47
- * KHRA = 26.12.78 KHARK RADIOELECTRON D14 J09 X25 *SU -786-070
Super high frequency furnace - 61976D/34
- * KING- 03.05.77 KINGSDOWN MED CONSU D22 *GB 1595-906
Surgical colostomy dressing - 60869D/34
- * KINJ- 11.12.79 KINJIRUSHI WASABI K D13 *J5 6082-076
Granulation of powdered spices - 61219D/34
- * KLAI = 28.06.77 KLAIPEDA ZAPRYBA D12 *SU -786-960
Mixing fish and salting mixt. with economy of latter - 61983D/34
- KLEI/ 16.08.78 KLEIN J A96 B04 D16 #EP --33-397
Enzymatically active bio:catalyst prodn. - 27354C/16
- * KNOR- 30.01.80 KNORR NAEHRMITTEL AG D13 *EP --33-635
Cheese spreads prodn. with good shelf life - 60776D/34
- KOCK- 18.10.77 KOCKUMS CONS AB D13 =US 4282-319
Enzyme hydrolysis of whole grain esp. wheat - 16027B/09
- KOLL/ 29.12.79 KOLLROSS G D12 =NO 8003-815
Sausage case corrugating device - 49973D/28
- * KUEP/ 24.09.79 KUEPPER T A A88 D15 F03 J01 *US 4282-097
Waste water purifying appts. - 62118D/34
- KURE 05.12.79 KUREHA CHEM IND KK D25 E19 =J5 6081-399
Phosphorus free detergent compsn. - 46288D/26
- * KURK 04.12.79 KURITA WATER IND KK D15 J01 *J5 6081-114
Sludge dewatering appts. - 61015D/34
- KURS 12.09.73 KURARAY KK A14 B04 D16 (A96) =J8 1031-949
Acrylic acid deriv polymers compatible with living bodies - 66294W/40
- KURS 12.09.73 KURARAY KK A96 B07 D16 F06 (A14 B04) =J8 1031-951
Support with enzyme activity and living body compatibility - 66295W/40
- * KVET = 26.12.78 KAZA VET RES INST B04 D16 *SU -784-879
Prodn. of red blood cell suspension for brucellosis diagnosis - 61665D/34
- * KYOW 05.12.79 KYOWA HAKKO KOGYO KK B02 D16 *J5 6082-100
Beta-lactam antibiotic prodn. - 61226D/34
- * LAMB/ 27.11.79 LAMBERT J C D11 *FR 2472-343
Distributing dough pieces into pockets of proving chamber conveyor - 60807D/34
- LARS/ 22.11.79 LARSSON G D15 =FI 8003-480
Trough for removing water from sand - 61640D/34
- * LARS/ 22.11.79 LARSSON G D15 *SE 7909-645
Trough for removing water from sand - 61640D/34
- LECO = 10.12.79 LENGDCOMMUN ECONOM D15 L02 #J5 6084-366
Reclaiming sludge from filtration plants - 51870D/29
- * LEEN = 05.04.79 LENGDCONCONS INST D15 *SU -785-212
Disinfection of natural and waste water - 61738D/34
- LEGA/ 07.01.80 LEGASTE D23 =NL 8007-031
Steam extrn. of essential oil from vegetable matter - 36358D/21
- LEHM- 21.12.79 LEHMANN H AG D17 X25 =GB 2068-763
Massecuite heating appts. - 49886D/28
- * LEIB- 30.01.80 LEIBETSEDER CO GMBH D16 E17 *EP --33-724
Anaerobic fermentation tank for digestible substances - 60806D/34
- LINM 25.08.77 LINDE AG D15 (D17) =EP G000-861
Purifying organically contaminated waste waters contg. calcium - 18363B/10
- * LINM 08.02.80 LINDE AG C03 D13 *DE 3004-724
Protein-contg. material prepn. by aerobic microorganism fermentation - 60660D/34
- * LION- 06.02.80 LION CORP D21 E15 (D16) *GB 2068-730
Oral compsns., e.g. dentifrices, contg. dextranase - 60881D/34
- LIOY 31.03.78 LION DENTIFRICE KK D23 E15 =J8 1032-288
Perfume compsn. contg. sabinene hydrate - 83356B/46
- * LIOY 09.07.79 LION CORP D25 E17 *J5 6081-555
Lowering Kraft point of 2-hydroxy:alkane sulphonate - 61132D/34
- * LIOY 11.12.79 LION DENTIFRICE KK B04 D21 *J5 6083-416
Oral compsn. for dental hygiene - 61362D/34
- * MACR- 31.01.80 MACRODENT SA D21 M26 *EP --33-628
Dental amalgam prod. - 60773D/34
- * MAK/ 02.10.78 MAKSIMOV G M D15 *SU -785-227
Aq. effluent aerator - 61753D/34
- MANI- 21.09.76 INST MANIPULACNICH D17 S03 =CH -624-216
Measuring water content of crystalline sugar - 23673A/13
- MATM 06.07.78 MATSUMOTO SEIYAKU KOGYO A96 D21 E12 G02 =J8 1032-285
Nail lacquer giving hard, flexible, water resistant film - 15720C/09
- MATU 20.12.76 MATSUSHITA ELEC IND KK A88 D15 J01 =GB 1595-982
Reverse-permeable membrane prodn. - 00814B/01
- MEAC 22.08.77 MEAD CORP A92 D13 =CH -624-069
Aseptic packaging of acid foodstuffs - 15978B/09
- MEIJ 24.12.79 MEIJI SEIKA KAISHA B03 D16 =FR 2472-611
SF-2080A substance of apparent pyrrole structure - 52156D/29
- MERE 02.02.80 MERCK PATENT GMBH A96 B04 D16 S03 =DE 3003-836
Immunological determination of antibodies, antigens and haptens - 60703D/34
- * MERE 02.02.80 MERCK PATENT GMBH A96 B04 D16 S03 *EP --33-437
Immunological determination of antibodies, antigens and haptens - 60703D/34
- MERI 16.05.75 MERCK & CO INC B04 D16 #CH -624-430
Cell-free chickenpox virus prodn - 78722W/48
- MERI 02.09.75 MERCK & CO INC B05 C03 D22 E14 =CH -621-224
Diphenyl-alkylene polyamine antimicrobials - 16416Y/10
- * MERI 24.11.75 MERCK & CO INC B02 D16 *US 4282-322
Thiameycin, desacetyl antibiotic 890A1 and 890A3 prepn. - 62232D/34
- * MERI 01.08.79 MERCK & CO INC B02 C02 D13 E13 (D22) *US 4282-219
Antibacterial cephalosporin analogues - 62181D/34
- MERI 13.11.79 MERCK & CO INC B04 D16 =J5 6082-089
Cell culture of hepatitis B virus - 38590D/22
- * MESH/ 22.07.77 MESHCHERYAKOV N F D15 *SU -785-226
Aq. effluent aerator - 61752D/34
- MESP/ 01.02.80 RAMO MESPLE J L D15 =GB 2068-774
Prodn. of drinking water by reverse osmosis desalination - 40238D/23
- MESR 23.01.79 MESSERSCHMITT-BOLKOW-BLO D22 E36 J01 =US 4281-518
Gas component segregation from gas mixt. - 80981C/46
- * METO- 12.06.78 CENT METODOLOGIC B04 D16 *RO --76-362
Inflammatory ailment injection treatment compsn. - D/34
- MFEN- 26.09.77 M+F ENG AG D14 =CH -624-278
Domestic soft ice appliance - 28086B/15
- * MICR = 26.12.78 APPL MICROBIOL D16 S05 *SU -784-865
Microbiological and medical cell suspension research appts. - 61662D/34
- MILE 04.06.79 MILES LABORATORIES INC B04 D16 S03 =J5 6082-090
Prepn. of apo:glucose oxidase from glucose oxidase and glycerol - 90558C/51

- MILE 10.12.79 MILES LABORATORIES INC B04 D16 J04 = FI 8003-808
Tester for detecting urea contains grease - 50021D/28
- MINN 21.01.77 MINNESOTA MINING CO A96 D21 (A14) = GB 1596-241
Liq. two/part acrylic tooth filling compsn. - 55451A/31
- MISR/ 29.01.80 MISRA D K D15 F09 *DE 3003-090
Two/step alkali pulp waste liquor de:silicification - 60552D/34
- MITN 21.12.79 MITSUBISHI GAS CHEM IND D14 *GB 2068-991
Bag contg. oxygen absorbent - 60958D/34
- MITO 05.12.79 MITSUBISHI HEAVY IND KK D22 J01 *J5 6081-123
Deodorising gas contg. aldehyde from sewage treatment - 61022D/34
- MITR 27.12.79 MITSUBISHI RAYON KK A41 D15 E16 = FR 2472-558
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- MITU 07.12.79 MITSUBISHI CHEM IND KK A14 D15 (A97) *J5 6081-315
Mfg. water-soluble polymer beads for waste-water treatment - 61048D/34
- MLKO= 25.05.78 MOLD KOLKHOZZHIVPRO D15 *SU -785-207
General purpose waste water settler - 61733D/34
- MODR/ 11.09.79 MODROVICH I E B04 D16 J04 *US 4282-316
Stabilised urease soln. for urea determ. - 62231D/34
- MOEP= 06.06.79 MOSC EPIDEMIOL MICR B04 D16 *SU -784-878
Prepn. of protective somatic antigen for diphtheria bacteria - 61664D/34
- MOLD/ 12.10.78 MOLDENHAUER J B04 D16 *US 4282-326
Cell culture medium supplement - 62236D/34
- MOLD= 15.12.78 MOLDTABAKFROM COMBI D18 *SU -786-970
Fermentation of tobacco in bales - 61990D/34
- MOMD 02.02.79 MOSCOW MEAT DAIRY INST D12 *SU -786-956
Meat and bone separator - 61979D/34
- MOMD 09.02.79 MOSCOW MEAT DAIRY INST D12 X25 *SU -786-957
Separator for meat and bone, e.g. of fish - 61980D/34
- MOMM/ 02.04.80 MOMMER R P D22 E36 *BE -888-237
Suppressing ammoniacal odour from animal excrement - 60456D/34
- MONS 17.11.75 MONSANTO CO D25 E12 = CH -624-428
Ether carboxylate monohydrate - 25132Y/14
- MONS 31.10.77 MONSANTO CO A41 D22 E14 H06 (A60 H07) = EP G001-909
1,2-Bis-(4-hydroxy-aryl) ethane cpds. prepn. - 37537B/20
- MOSU 26.01.79 MOSCOW LOMONOSOV UNIV B04 D16 *SU -785-318
Bacterial luciferase prepn. - 61844D/34
- MPPR- 12.12.79 M & P PROGRAM D21 *FI 7903-890
Tooth cleaning cloth - D/34
- NAGA 29.12.79 VEB KOMBINAT NAGEMA D13 = NL 8006-201
Continuous chocolate compsn. prepn. - 49994D/28
- NAGA 29.12.79 VEB KOMBINAT NAGEMA D13 = SE 8008-878
Continuous chocolate compsn. prepn. - 49994D/28
- NAGS 05.12.79 NAGASE SANGYO KK D17 (D16) *J5 6082-097
Glucose prodn. in high yield - 61223D/34
- NAKA- 13.02.79 NAKANO VINEGAR CO L D16 = US 4282-257
Vinegar of high acetic acid concn. prodn. - 60770C/35
- NAPO- 16.06.77 NAPOCHIM INTR CHIM A96 D21 (A14) *RO --69-103
Dental methyl methacrylate suspension (co polymer prodn. - D/34
- NEST 26.01.79 SOC ASSIST TECH NES D13 = US 4282-264
Removing bitter components from protein hydrolysate - 60835C/35
- NEWN- 31.05.74 NEW JAPAN CHEM CO A97 D22 E16 (E14) = J5 0153-011
Solid cleaning compsn. for toilet - 61614D/34
- NEWN- 31.05.74 NEW JAPAN CHEM CO A97 D22 E16 (E14) *J8 1032-358
Solid cleaning compsn. for toilet - 61614D/34
- NEZU- 28.07.75 NED INST ZUIVELONDERZOEK D13 = CH -624-277
Reciprocating perforated plate for shearing yoghurt - 09291Y/06
- NICH/ 12.10.79 NICHOLS W K D14 *US 4281-976
Hay pelleting device uses hay bales as feed - 62058D/34
- NIKA- 07.12.79 NIPPON KANKO SHIKISO D21 E13 *J5 6081-522
Topically administrable compsn. for diagnosing skin characteristics - 61114D/34
- NIOF 19.12.78 NIPPON OILS & FATS KK D13 E17 = US 4282-163
Prodn. of hydrogenated fatty acid - 46538C/27
- NIPA 10.12.79 NIPPON PAINT KK D15 *J5 6082-318
Treating aq. cationic paint waste water - 61257D/34
- NIRA 08.11.78 UNITIKA KK B02 D16 J04 = US 4282-352
N(6)-Carboxy-ethyl adenosine triphosphate - 40156C/23
- NIRA 07.11.79 UNITIKA KK B04 D16 = FR 2472-608
Heat-stable glucose-6-phosphate dehydrogenase enzyme - 38404D/22
- NISC 10.12.79 NISSAN CHEM IND KK B05 C03 D23 E19 *J5 6083-435
Unsatd. aldehyde prodn. - 61375D/34
- NISC 12.12.79 NISSAN CHEM IND KK B05 C03 D23 E19 *J5 6083-434
Unsatd. aldehyde prodn. from unsatd. alcohol - 61374D/34
- NITL 11.12.79 NITTO ELECTRIC IND KK A96 B05 D22 *J5 6083-418
Poultice comprises A-B-A type block copolymer - 61364D/34
- NITT 15.04.76 NITTO CHEM IND KK D15 E16 = J8 1032-250
Waste water treatment for liquids discharged from ammoxidation - 85626Y/48
- NITT 27.12.79 NITTO CHEM IND KK A41 D15 E16 = FR 2472-558
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- NOEL- 06.02.80 NOELL G GMBH D15 *DE 3004-226
Mechanical water purification rotary disc filter - 60596D/34
- *NOEL- 06.02.80 NOELL G GMBH D15 *DE 3004-294
Mechanical water purification grating system - 60609D/34
- *NONA= 22.05.78 NON ALCOHOL BEER D15 E32 *SU -785-223
Removal of sulphate-reducing bacteria from spring-water - 61749D/34
- *NONF= 31.07.78 NON FERR METAL ENRI A97 D15 (D16) *SU -785-229
Biochemical removal of flotation agents from metallurgical effluent - 61755D/34
- *NOPE- 12.12.79 NORSKE PELS DYRFORLA D12 *FI 7903-881
For animal skinning method and appts. - D/34
- NOVA- 06.12.79 NORDISKA VATTENPROJ D15 = FI 8003-798
Removing sludge cake from chamber filter press - 51646D/28
- *NSEN= 06.06.78 NOVOS ENG CONS INST A88 D15 E14 J01 *SU -785-219
Purificn. industrial waste water - 61745D/34
- *NURM/ 11.01.80 NURMIE V B04 C03 D16 *EP --33-584
Bacterial prepn. for prophylaxis of poultry intestinal disturbance - 60751D/34
- *NUTR- 05.05.76 INST NUTRIT ANIMALA D13 *RO --76-324
Coarse fodder silo storage - D/34
- *NUTR- 05.05.76 INST NUTRIT ANIMAL D16 *RO --76-325
Bio-gas prodn. from animal waste - D/34
- *NUTR- 06.10.76 INST NUTRIT ANIMALA D12 *RO --76-326
Animal protein hydrolysate prepn. - D/34
- *NUTR- 06.10.76 INST NUTRIT ANIMALA C03 D13 *RO --76-330
Protein-based energising fodder - D/34
- ODEN= 17.09.79 ODESSA ENG INST D15 = NL 8020-180
Evaporative desalination of water - 25375D/14
- *ODPR= 05.02.79 ODESS PROVISION MAC D14 *SU -786-968
Equipment for individual supply of fruit - 61988D/34
- *ODRI 19.12.78 ODESSA REFRIG IND RES D14 *SU -785-613
Frozen meat storage chamber - 61945D/34
- OGAW/ 21.06.76 OGAWA Y D21 = J8 1032-282
Cosmetic e.g. for skin lotion, hair tonic or lipstick - 11580A/06
- OHIR/ 11.08.71 OHIRAT D15 = J4 8025-372
Waste water treatment - 61610D/34
- *OHIR/ 11.08.71 OHIRAT D15 *J8 1032-040
Waste water treatment - 61610D/34
- *OKAN/ 04.12.79 OKANOU E A97 D15 E16 J01 *J5 6081-110
Sepp. oil from waste water - 61012D/34
- *OPTR- 07.01.81 OPT ROOT MACH FAB D11 *NL 8100-051
Deep-frozen gâteau is cut into central piece and sectors - 61627D/34
- ORAA- 03.08.79 ORAA SARL B04 C03 D13 = EP --33-324
Dried colostrum - 88392C/50
- OREA 21.07.76 L'OREAL SA D21 E24 = CH -624-008
Stable solutions of specified indoaniline and indophenol dyes - 06389A/04
- OREA 09.09.76 L'OREAL SA D21 E24 = CH -624-296
(N)-Mesylaminoalkyl amino alkyl phenols - 04114A/03
- OREA 27.10.78 L'OREAL SA A14 D21 (A97) = US 4282-203
Copolymers based on vinyl acetate and unsatd. acid - 35055C/20
- OREA 28.12.79 L'OREAL SA A96 D21 E19 = FR 2472-382
Hair perming by redn. and oxidn. - 49712D/28
- *OREK= 08.07.76 OREKHOVO ZUEVSK KARBOLIT A21 D15 (A35) *SU -785-202
Purificn. of phenol-formaldehyde resin prodn. effluent - 61728D/34
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 8003-755
Hybridoma ATCC CRL-8020 - 46284D/26
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 = FI 8003-756
Mono:clonal antibody against particular human thymocyte antigen - 48100D/27
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 8003-757
New mono:clonal antibody against particular human thymocyte antigen - 48101D/27
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 8003-758
Hybridoma ATCC CRL-8014 - 46285D/26
- *ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) *EP --33-578
Mono:clonal antibody reactive with peripheral T cells and thymocytes - 60747D/34
- *ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) *EP --33-579
Mono:clonal antibody reactive with monocytes and granulocytes - 60748D/34
- *PACI/ 16.07.75 PACINIA J D15 E13 (E32) *US 4282-104
Water treatment esp. for swimming pools - 62123D/34
- *PAIN- 06.02.80 PAIN JACQUET BISCOT D11 *DE 3004-787
Extrusion baking of bread - 60663D/34
- *PANC- 20.11.79 PANCANADIAN PETROLEUM D15 H01 *US 4282-103
Treating tar sand tailings for solids removal - 62122D/34
- PARA- 14.06.76 PARAGERM FRANCE D22 = CH -624-299
Purifying and sterilising atmos. of enclosed area - 23695A/13
- *PASE 23.01.80 PASSAVANT-WERKE AG D15 J01 *EP --33-482
Sepn. of solid impurities from liq. - 60710D/34
- *PAST- 14.05.79 PASTEUR INST VETER B04 C03 D16 *RO --75-474
Anti-Salmonellae sheep abortion vaccine - D/34

- *PAST/ 02.02.80 PASTOORS E D15 *DE 3003-827
Mechanical waste water impurities removal raking grating - 60561D/34
- PERD- 23.01.74 PERDENT GMBH A96 D21 =US 4281-991
Plastics-filler dental material - 51165W/31
- *PERM- 30.01.80 PERMA D21 *EP --33-687
Two-pack hair bleaching compsns. - 60792D/34
- *PETE/ 05.10.79 PETERSEN T D23 *DK 7904-176
Wax candle conical end turning tool - D/34
- *PETR- 20.11.79 PETRO-CANADA EXPLOR D15 H01 *US 4282-103
Treating tar sand tailings for solids removal - 62122D/34
- PFIZ 05.04.74 PFIZER INC A11 D13 (A97 D17) =RO --76-424
Polycondensn. of saccharides to sugar, flour and starch substits. - 69274W/42
- PFIZ 01.06.77 PFIZER INC B04 D16 =J8 1032-318
Animal growth promoting polypeptide antibiotic 46192 - 40248A/22
- PFIZ 30.11.78 PFIZER INC D16 H01 (D13) =US 4282-321
Fermentative prodn. of xanthan gum - 44502C/25
- *PLOT/ 06.05.74 PLOTNIKOV NI D15 M14 *SU -785-221
Neutralisation of acidic metal ions contg. aq. effluent - 61747D/34
- POLY- 23.11.79 POLYTHETICS INC A96 D22 (A25) =US 4281-992
Dentures with improved thermal deformation resistance - 64436C/37
- *POWE/ 21.01.80 POWELL F D21 E17 *WP 8102-102
Denture decalcifying and cleansing - 62287D/34
- PROC 11.05.73 PROCTER & GAMBLE CO D25 =FI 8100-836
Detergent compsn contg. aluminosilicate ion exchanger - 82595V/48
- PROC 11.05.73 PROCTER & GAMBLE CO D25 =FI 8100-837
Detergent compsn contg. aluminosilicate ion exchanger - 82595V/48
- PROC 28.03.77 PROCTER & GAMBLE CO D21 E19 =GB 1596-071
Hair conditioning agent e.g. quat. ammonium salt - 70786A/40
- PROC 28.03.77 PROCTER & GAMBLE CO A97 D25 E23 F06 =GB 1596-236
Bleach compsn. contg. sulphonated zinc phthalocyanine photoactivator - 74412A/42
- PROC 12.03.79 PROCTER & GAMBLE CO D22 =US 4281-421
Dispenser for dosing hypochlorite e.g. into flush toilet - 71976C/41
- *PROT= 06.07.79 PROTEINS BIOSYNTH D16 H04 *DD -148-465
Microbial protein prodn. from methane - 60519D/34
- RAAB/ 15.02.79 RAAB S A96 D22 M14 (A14 A17) =US 4281-420
Bone prosthesis with covering of PMMA - 62733C/36
- RALS 09.01.80 RALSTON PURINA CO D11 =NL 8100-029
Milk substitute for bakery prods. - 38186D/22
- RECK 30.05.79 RECKITT & COLMAN PROD D25 E16 (E12 E34) =US 4282-109
Aq. thickened bleach compsns. - 02418D/03
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =FI 8100-686
Plasmid contg. gene from a higher organism - 70827A/40
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Plasmid contg. gene from a higher organism - 70827A/40
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =FI 8100-688
Plasmid contg. gene from a higher organism - 70827A/40
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =FI 8100-689
Plasmid contg. gene from a higher organism - 70827A/40
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 =FI 8100-691
Plasmid contg. gene from a higher organism - 70827A/40
- REGC 19.04.78 UNIV OF CALIFORNIA B04 D16 =FI 8100-690
Plasmid contg. gene from a higher organism - 70827A/40
- REGC 19.04.78 UNIV OF CALIFORNIA B04 D16 =FI 8100-692
Plasmid contg. gene from a higher organism - 70827A/40
- REIN/ 31.05.79 REINSTORFF D A96 B04 D16 E12 =FR 2472-554
Solns. of triquinoyl, its radicals or polymers prodn. - 88558C/50
- *REXN 11.09.78 REXNORD INC D15 *US 4282-102
Activated sludge waste water treatment - 62121D/34
- RHKA 18.07.78 RHEINISCHE KALKSTEI GMBH C04 D15 =DS 2960-322
Sewage sludge mixer and granulator - 05742C/04
- RHON 22.08.75 RHONE-POULENC INDUSTRIES A14 B04 D16 =J8 1032-331
Polymer latex of particles with vinyl polymer core - 17664Y/10
- RHWL 15.12.79 RHEINISCH-W ELEKTRI D15 E36 K06 =FI 8003-912
Recovering boric acid from nuclear power station effluent concentrates - 29112D/17
- *RIBA/ 28.12.79 RIBAUD M D15 *FR 2472-540
Anaerobic biological system for purificn. of effluent - 60826D/34
- RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 =CH -624-410
Antibacterial penicillanic acid derivs. - 92454X/50
- RICH 01.10.79 RICHARDSON-MERRELL INC A96 D21 =DK 8004-123
Non-adhesive gel compsn. for stabilising dentures - 27594D/16
- *RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 *BE -887-391
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- *RICT 05.02.81 RICHTER GEDEON VEGY B02 D16 *BE -887-392
Regulation of fermentative ergot alkaloid prodn. - 60441D/34
- RIKV 07.12.79 RIKEN VITAMIN CO LTD D13 =J5 6082-064
Emulsifier prepn. for improving starch-contg. food quality - 79089C/45
- RIKV 07.12.79 RIKEN VITAMIN CO LTD D13 =J5 6082-065
Emulsifier prepn. for improving starch-contg. food quality - 79089C/45
- *ROMA- 07.02.80 SOC ROMANDE IMPREGN C03 D22 F09 *DE 3023-245
Improving wood preservative absorption in timber impregnation - 40672D/34
- *ROSM= 19.12.78 ROSMYASOMOLTORG BUR D14 *SU -785-613
Frozen meat storage chamber - 61945D/34
- ROTH/ 18.12.78 ROTH JN D16 =US 4282-317
Prodn. of nutrient substrates contg. low methoxy pectin - 48398C/28
- *SAAR/ 13.12.79 SAARINEN JO D11 *FI 7903-912
Filled bakery product mfr. and plant - D/34
- SACH- 15.11.79 SACHS SYSTEMTECH GM D15 J03 X25 =J5 6081-178
Anodic oxidn. appts. for purificn. of liquids - 44190D/25
- *SAFR/ 03.07.78 SAFRONOV II D16 E34 *SU -785-210
Purificn. of wine and brandy prodn. aq. effluent - 61736D/34
- *SAGA 06.12.79 SAGAMI CHEM RES CENTRE B05 D13 E19 *J5 6081-549
Selective prepn. of d- or l-isomer of dipeptide - 61130D/34
- SAKA/ 10.08.79 SAKAIT B04 D16 =EP --33-349
Pectin prodn. from vegetable tissue, e.g. citrus rind - 17431D/10
- *SAKA/ 06.12.79 SAKATA K D21 *J5 6081-512
Cosmetic material - 61108D/34
- SALA- 25.04.77 SALANON SA D15 =GB 1596-073
Non-scaling and descaling water prodn. in a treatment chamber - 76319A/43
- *SAND/ 00.00.78 SANDERSON RS D22 *WP 8102-108
Sterilisation container for autoclaving - 62292D/34
- SANE 04.10.77 SAN EI CHEM IND KK D23 =J8 1032-353
Antioxidant for fats and oils - 43160B/23
- *SANN 11.12.79 SANYO CHEM IND LTD A97 D25 (D21) *J5 6082-895
Anionic surfactant compsn. for liq. detergent - 61340D/34
- *SANN 11.12.79 SANYO CHEM IND LTD A96 D25 E16 (D21) *J5 6082-896
Prepn. of surfactant - 61341D/34
- *SANN 11.12.79 SANYO CHEM IND LTD A96 D21 E12 (E16) *J5 6082-897
Shampoo compsn. - 61342D/34
- *SANN 11.12.79 SANYO CHEM IND LTD A96 D21 E12 (E16) *J5 6082-898
Low irritation shampoo compsn. - 61343D/34
- *SANO 08.02.80 SANDOZ AG C02 D22 *GB 2068-732
Topical application of 4-alkylamino:quinazoline derivs. - 60883D/34
- SANY 30.04.75 SANKYO KK B02 C02 D13 =CH -624-120
Antibacterial 7-alpha-methoxy-cephalosporins - 84992X/46
- *SAUN/ 13.11.79 SAUNIER B D15 E36 J04 S03 *FR 2472-751
Analysing separately for oxidants in soln. - 60846D/34
- SCHD 01.08.75 SCHERING AG B01 D16 =CH -624-415
Fermentative prepn. of (5) androsten (17) ones - 09331Y/06
- *SCHD 09.11.79 SCHERING AG B03 C02 D16 *EP --33-433
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- SCHD 09.11.79 SCHERING AG B03 C02 D16 =J5 6083-497
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- SCHD 09.11.79 SCHERING AG B03 C02 D16 =NO 8003-356
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- *SCHE 09.11.79 SCHERING CORP B03 C02 D16 *EP --33-433
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- SCHM/ 28.02.79 SCHMIDT U D12 =DD -141-608
Fish filleting machine - 53440C/31
- *SCHO- 10.09.76 SCI HOSP SUPPLIES B04 D16 *GB 1596-154
Microbiological test device - 60875D/34
- SCHO/ 16.12.76 SCHOPPE F D17 E33 =GB 1595-956
Continuous powdery active lime prodn. - 45991A/26
- *SEAF= 05.12.78 SEA FISH OCEANOGRAPHY D12 S03 X25 *SU -785-705
Unit for controlling moisture content of food prods. - 61966D/34
- SEAR 06.02.80 SEARLE G D & CO B04 D16 =GB 2068-970
Gene for expressing protein similar to human interferon - 44110D/25
- SEAR 23.01.81 SEARLE G D & CO B04 D16 E14 (B05 D13) =GB 2068-971
Synthetic gene contg. repeating codon sequence - 42123D/24
- *SEDE- 27.12.79 SEDERMA D21 E11 *FR 2472-384
Phospholipid ubiquinone complex used in cosmetics - 60812D/34
- *SEDE- 27.12.79 SEDERMA SOC D21 *FR 2472-385
Extracts of natural biological substances used in cosmetology - 60813D/34
- *SEVT= 15.02.79 SEVTEKHRYBPROM COMB D12 *SU -786-959
Device for orientating fish in one direction - 61982D/34
- SHAT/ 07.01.77 SHATTOCK G F D16 H06 =GB 1595-803
Microbiological decomposition of sludge - 53798A/30
- SHEL 14.08.70 SHELL INT RES MIJ BV D25 E17 =J8 1032-300
Carboxylic acids - 12801T/08
- *SHIB- 12.12.79 SHIBATAYA KAKOSHI K C03 D13 *J5 6083-407
Bag for protecting fruit from fungal attack - 61356D/34
- *SHID 06.12.79 SHINTO PAINT KK C03 D22 E14 F09 (E36) *J5 6081-509
Wood insecticide and fungicide compsn. - 61105D/34
- SHIG/ 12.09.75 SHIGEHIO M D15 =J5 2035-447
Treating waste water contg. flour - 61571D/34
- *SHIG/ 12.09.75 SHIGEHIO M D15 *J8 1031-146
Treating waste water contg. flour - 61571D/34
- SHIO 12.12.79 SHIONOGI KK B02 C02 D16 =J5 6083-489
Antibiotic pa-39504-X1 from streptomyces sp. atcc 31569 - 48059D/27
- SHIS 17.05.72 SHISEIDO KK A82 D21 E17 G02 (A96) =J8 1032-283
Fingernail enamel fading prevention - 65168V/37

- SHIS 28.05.76 SHISEIDO KK A96 D21 G02 = J8 1032-284
Gel compsn. for nail enamel use - 05673A/03
- SHIS 13.12.79 SHISEIDO KK A97 D21 *J5 6083-414
Hair cosmetic - 61360D/34
- SHMA 20.10.72 SHIMIZU MANZO SHOTE D17 #RO --68-262
Selective sepn of konjac flour - 15478U/11
- SIEI 28.09.78 SIEMENS AG A96 D22 G02 S05 (A14) = US 4281-668
Implantable carbon electrode - 27640C/16
- SIKS- 16.11.79 SIK SVENSKA LIVSMED B02 D16 *SE 7909-488
Haem iron rich amino acid compsns. - 61636D/34
- SIME = 05.09.78 SIBE METALLURG WKS D15 *SU -785-203
Liquid effluent cleaner - 61729D/34
- SLOV- 10.12.79 SLOVENSKA AKAD VIED A96 B04 D16 #J5 6082-088
Granulate, powder or pressing for lysing cells from tissues - 42201D/24
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 *GB 2068-760
sludge thickening appts. - 60887D/34
- SMHL 01.02.80 SIMON HARTLEY LTD D15 J01 *GB 2068-761
Sludge dewatering appts. having foraminous belt - 60888D/34
- SMIK 20.10.75 SMITHKLINE CORP D16 = CH -624-429
Device for culturing carbon dioxide requiring organisms - 47641X/25
- SMIK 22.12.75 SMITHKLINE CORP B04 D16 S03 S05 = CH -624-144
Oxidase reagent solns. for detecting Neisseria colonies - 28939Y/16
- SNAM 11.04.74 SNAMPROGETTI SPA B05 C03 D13 E16 = CH -624-091
Beta hydroxyamino acids prepn. - 57237W/35
- SNEN- 03.10.79 SN-ENGINEERING A/S D14 = DK 7904-150
Automatic process for coring fruits such as gherkins and pears etc. - 29275D/17
- SODA- 29.07.77 SODASTREAM LTD D15 = GB 1595-911
Portable water carbonator for sparkling drinks - 84161A/47
- *SOLL- 05.02.80 SOLLICH & CO GMBH D14 *DE 3004-022
Strand forming device for sweet-meat paste - 60576D/34
- *SSSE 31.01.80 SS PHARMACEUTICAL KK B04 D16 *EP --33-624
Anti-haemolytic substance M-9337 - 60771D/34
- *STAR- 22.10.79 STAR-KIST FOODS INC C03 D13 (D12) *US 4282-256
Prepn. of animal feed supplement - 62196D/34
- STBR 19.11.79 STANDARD BRANDS INC A97 D13 = FI 8003-590
Low-fat liq. spreads - 40215D/23
- STBR 19.11.79 STANDARD BRANDS INC D13 = FI 8003-591
Low fat spread for low-calorie diet - 40486D/23
- *STFI- 07.02.80 STANDARD FILTERBAU D22 (D15) *DE 3004-435
Wet hose bio-filter - 60619D/34
- SUDD 12.05.78 SKW TROSTBERG AG A23 D13 E12 (A97) = US 4282-385
Over-acid solid metal lactate for food additive use - 86066B/48
- *SUID- 06.12.79 SUIDOKIKO KK D22 J01 *J5 6081-120
Deodorising gas contg. trace amts. of methyl sulphide - 61020D/34
- SUMD 06.11.76 SUMITOMO CEMENT KK D17 = J8 1031-959
Sugar juice or dissolved sugar liquor purificn. - 48586A/27
- SUMO 31.10.73 SUMITOMO CHEMICAL KK A91 D15 J01 = J8 1032-255
Treating hexavalent chromium-contg waste waters - 09926X/06
- SUMO 02.10.79 SUMITOMO CHEMICAL KK A97 D16 = DK 8004-150
Immobilised enzyme lactase - 27719D/16
- *SUNO 10.05.79 SUNMARK INC D17 *US 4282-263
Gasified fusible sugar composition manufacture - 62201D/34
- *SVEN/ 28.01.80 SVENSSON S E B04 D16 *WP 8102-104
Oligosaccharide isolation from cell tissue - 62288D/34
- *SYNT 19.01.77 SYVA CO B04 D16 *US 4282-325
Enzyme bound corticosteroid conjugates - 62235D/34
- TAKE 13.10.73 TAKEDA CHEMICAL IND KK B04 D16 = J8 1031-952
Antibiotic B-5050-A prodn. - 76413W/46
- TAKE 13.10.73 TAKEDA CHEMICAL IND KK B04 D16 = J8 1031-953
Antibiotic B-5050-C - 76414W/46
- TAKE 30.01.74 TAKEDA CHEMICAL IND KK B04 D16 = J8 1031-954
Antibiotic T-40517 prepn. by Streptomyces fermentation - 42182Y/24
- TAKE 18.03.74 TAKEDA CHEMICAL IND KK B04 D16 = J5 0123-879
Antibiotic P-3355 prodn. - 61569D/34
- *TAKE 18.03.74 TAKEDA CHEMICAL IND KK B04 D16 *J8 1023-591
Antibiotic P-3355 prodn. - 61569D/34
- TAKE 06.12.77 SODA KORYO KK D23 E13 = J8 1032-287
Perfume compsn. for cosmetics, foods, dentifrices etc. - 58795B/32
- TAKU- 12.01.73 TAKUMA KK D15 = J4 9095-463
Waste water treatment - 61573D/34
- *TAKU- 12.01.73 TAKUMA KK D15 *J8 1031-159
Waste water treatment - 61573D/34
- *TANA 07.12.79 TANABE SEIYAKU KK B05 D16 E16 *J5 6082-099
Glutathione prepn. - 61225D/34
- TEIJ 06.12.79 TEIJIN KK A88 D15 J01 (A26) = J5 6081-105
Recovering water flux efficiency of polymeric semi-permeable membrane - 46286D/26
- *TEKH= 10.01.79 TEKHRYBPROM COMBINE D12 *SU -786-958
Unit for moving fish along cassettes of conveying unit - 61981D/34
- TENU/ 31.05.77 TENUTA A D13 = CH -623-998
Preparation of deep frozen tomatoes - 92352A/51
- TETR 18.02.77 TETRA PAK INT AB D14 = CH -624-027
Sterilising pipe for a foodstuffs filler tube - 62128A/35
- THOD 26.04.70 THOMASSEN & DRIJVER VERB D13 = DS 2119-351
Sterilisation of foodstuffs - 70483S/44
- *TIBI- 01.02.80 TIBILY CORP NV D15 F09 H03 J01 *GB 2068-762
Separating components of non-newtonian fluid - 60889D/34
- *TINR= 01.07.75 TIN RES INST D15 M14 (M25) *SU -785-222
Cyanide- and sulphide-contg. slurried effluent purificn. - 61748D/34
- *TOKU 07.12.79 TOKUYAMA SODA KK D15 J01 *J5 6081-109
Electrodialysis appts. e.g. for water desalination - 61011D/34
- *TOUR/ 20.07.79 TOURNIER C D12 *FR 2472-345
Prepn. of hooped animal leg for de-boning - 60809D/34
- *TOXN 11.12.79 TOYO JOZO KK B04 D16 *J5 6082-094
Antibiotic A-9594 - 61221D/34
- TOYJ 31.03.73 TOYO SODA MFG KK D15 J01 = J8 1032-038
Waste water clarification - 46695W/28
- TRIB/ 04.02.80 TRIBBLE T B C03 D13 E17 (D22) = DE 3040-728
Animal feed preservative contg. pyrolygneous acid - 59152D/33
- *TSHY= 08.07.76 TASHK HYDRO GEOLOGY A21 D15 (A35) *SU -785-202
Purificn. of phenol-formaldehyde resin prodn. effluent - 61728D/34
- UBEN 06.08.74 UNCLE BENS AUSTRALIA LTD C03 D12 = CH -624-280
Simulated meat pet-food prod - 00110X/01
- *UCEL= 28.08.78 UKR CELLULOSE PAPER D15 F09 J03 X25 *SU -785-211
Electrolyser for cleaning paper-making aq. effluent - 61737D/34
- *UMET= 06.12.78 UKR METALLURG WKS D15 *SU -785-217
Open hydraulic cyclone type aq. waste settler - 61743D/34
- UNIL 30.04.71 UNILEVER NV D25 = J8 1032-359
Washing powders - 74793T/47
- *UNIL 05.11.76 UNILEVER LTD D25 E34 *GB 1595-769
Spray-dried absorbent comprises sodium carbonate and bi:carbonate - 60862D/34
- *UNIL 05.11.76 UNILEVER LTD A97 D25 *GB 1595-770
Spray-dried absorbent comprising sodium carbonate and sodium silicate - 60863D/34
- *UNIL 18.12.78 LEVER BROTHERS CO D25 E13 *US 4282-156
Alpha-(di:alkyl hydroxy:malonyl) succinic acid, gamma lactone - 62146D/34
- UNIL 20.07.79 UNILEVER NV D13 = GB 2068-706
Ice-cream products including fat-based coating - 08205D/06
- UNIL 09.11.79 UNILEVER NV A97 D25 = J5 6081-400
Stable, non-aq., built detergent compsn. - 38527D/22
- UNIL 13.11.79 UNILEVER NV D25 = J5 6082-899
Low phosphate spray dried detergent powders - 40706D/23
- UNIL 26.12.79 UNILEVER NV D13 E24 = FR 2472-350
Non-migrating colourants for margarine - 49708D/28
- UNIL 17.01.80 UNILEVER LTD D25 = EP --33-601
Cleaning compsn. esp. for ovens - 55648D/31
- UNTC 17.11.72 ECODYNE CORP D15 = J4 9135-270
Inserts for pipe channels in sedimentation tanks - 40254V/22
- UNTC 17.11.72 ECODYNE CORP D15 = J8 1032-004
Inserts for pipe channels in sedimentation tanks - 40254V/22
- UPJO 24.10.75 UPJOHN CO B01 D16 = CH -624-143
(9)-Alpha-hydroxy-androstenedion fermentation prodn. - 33075Y/19
- *UPJO 22.04.77 UPJOHN CO B04 C03 D16 (D22) *US 4282-327
Pure culture of Paecilomyces abruptus - 62237D/34
- *UPJO 05.02.80 UPJOHN CO D16 *GB 2068-969
Expression of gene coding by fusing gene - 60946D/34
- *UPJO 23.06.80 UPJOHN CO C02 D13 *US 4282-228
Animal feed compsn. for increased wt. gain etc. - 62184D/34
- *URAL= 17.04.79 URAL THERMOTEC INS D15 *SU -785-218
Sand trap for aq. effluent - 61744D/34
- *USSU 05.02.80 HAG AG D14 *EP --33-549
Drying aromatiser-contg. liq. or paste prodn. - 60737D/34
- *UWAT= 10.11.78 UKR WATER ENG INST D15 *SU -785-205
Liquid effluent etc. floatation tank - 61731D/34
- *UYDU- 28.06.77 DUKE UNIV INC D16 S05 *US 4281-645
Appts. for monitoring metabolism in body organs - 62016D/34
- *UYIR= 30.03.79 IRKUT UNIV BIOLOGY A97 D15 E24 F06 *SU -785-206
Removal of aromatic amine(s) from industrial plant effluent - 61732D/34
- *UYKI= 26.04.79 KIEV UNIV D15 E33 M14 *SU -785-220
Removal of alkaline earth metal cpds. from effluent - 61746D/34
- UYOR- 28.06.79 OREGON STATE UNIV C03 D16 (D13) = US 4282-255
Enhancing growth of acid-producing bacteria in culture media - 06066D/05
- *VALO- 14.07.78 INST VALORIF LEGUME D13 *RO --75-917
Vegetable-based foodstuffs heat treatment - D/34
- VENT- 13.12.79 VENTURATOR LTD D15 = FI 8000-535
Freely suspended submersible aerator for diffusing gas into liq. - 64207C/37
- *VILY/ 06.09.78 VILYANSKII M P D15 *SU -787-061
Fibrous volumetric water filter - 61999D/34

VISK-

- *VISK- 21.11.79 VISKO OY AB D12 *FI 7903-655
Continuous inner coating of fibrous intestine - D/34
- *VITE= 18.01.79 VITEB MED INST B04 D16 *SU -784-877
Immuno-therapy of purulent septic disease evaluation - 61663D/34
- VODO= 12.10.79 VODOKANAL WATER-CAN D15 J01 X25 = J5 6081-113
Signal unit in sand separator scraper adjustment - 58141D/32
- VYSO 29.12.79 VYSOKA SKOLA STROJ TEXT A97 D25 = FR 2472-606
Prepn. of washing powder contg. immobilised perfume - 32630D/19
- VYSO 29.12.79 VYSOKA SKOLA CHEM T A97 D25 = NL 8007-006
Prepn. of washing powder contg. immobilised perfume - 32630D/19

- *WATE= 11.05.73 WATER SUPPLY CANAL D15 *SU -785-232
Biologically treated sewage deposits concn. without compression units - 61758D/34
- *WATE= 18.08.78 WATER SUPPLY PURIF D15 *SU -785-225
Aq. effluent cleaner - 61751D/34
- WEIN/ 11.01.80 WEIN G D11 = NL 8100-086
Preserving precooked foods esp. loaves by quick freezing - 36370D/21
- WELL 28.11.79 WELLCOME FOUNDATION LTD B04 D16 S03 (S05) = FI 8003-690
Preservation of fixed monolayers of tissue culture cells - 44420D/25
- WENG- 27.05.75 WENGER MFG D12 = CH -624-279
Meat substitute - 59621X/31
- *WEST- 15.11.79 WESTWOOD PHARM INC D21 E13 *US 4282-206
1-(4-Amino-phenyl)-2-morpholinyl-ethane:one - 62175D/34
- WIGG 02.08.76 WIGGINS TEAPE LTD A88 D18 F09 = SU -786-851
Fibrous element e.g. cigarette filter formed from fibre suspension - 86637Y/49
- WILL/ 21.10.75 WILLISCH H D16 = CH -624-083
Compost heap for household refuse and industrial waste - 25210Y/15
- WILS/ 05.11.79 WILSON LPS D15 = J5 6081-108
Water purificn. by reverse osmosis - 38559D/22
- *WIST- 25.01.80 WISTAR INST ANATOMY B04 D16 *WP 8102-107
Attenuated varicella virus vaccine prodn. - 62291D/34
- WMAC- 21.01.80 WESTERN STATES MACH D17 = WP 8102-114
Vertical axis continuous centrifuge partic. for sugar crystals - 40244D/23
- *WULL/ 23.02.76 WULLSCHLEGER P D21 *CH -624-010
Plant extracts of solid consistency for cosmetic use - 60489D/34

- YAMA 26.07.76 YAMANOUCHI PHARM KK B02 D16 = J8 1032-316
(7)-Methoxy cephalosporins fermentative prodn. - 29215Y/17
- YAMA/ 13.11.79 YAMAMOTO H B03 D16 = J5 6081-598
Antibacterial amino:glycoside 2-hydroxy gentamycin antibiotic derivs. - 38414D/22

- *ZABO/ 20.12.74 ZABOLOTNIKOVA V F D15 J01 X25 *SU -784-908
Electrodialyser ion-exchange membrane regeneration - 61672D/34

S	SU -508-160 X52+	57237-W BCDE	X	GB 1508-113 A16+	US 4061-775 Y50	29215-Y BD	57578-Y D
70483-S D	CA 1011-986 Y26+	BE -827-623 W35	00110-X CD	US 4126-745 A48+	PT -65-522 A12	BE -849-763 Y17+	BE -853-529 Y33
BE -766-249 S44	CH -591-215 Y41+	DE 2515-622 W43	BE -832-175 X01	CH -624-120 D34+	ZA 7605-252 A20	NL 7614-279 Y28+	NL 7704-018 Y44
NL 7006-062 S45	IT 1047-950 D01+	NL 7504-383 W44	NL 7509-177 X09	92454-X BCD	GB 1520-598 A32	DE 2657-599 Y28+	DE 2715-944 Y45
J4 6006-913 T02	J8 1031-944 D34+	J5 0137-925 W52	DE 2534-934 X09	BE -844-405 X50	AT 7606-493 A44	J5 2079-081 Y33	DK 7701-624 A02
DE 2119-351 T05	23460-V DJ	FR 2267-306 X05	NO 7502-721 X14	US 3994-877 X50	IL -50-335 C47	NO 7604-350 Y33+	FR 2348-478 A06
ZA 7102-322 T06	FR 2190-741 V13	GB 1503-771 A11	SE 7508-842 X14	NL 7608-063 Y07	CA 1088-569 C47	SE 7614-516 Y33+	DD -129-736 A18
FR 2090-700 T14	J4 9051-766 V30	CA 1046-524 B05	DK 7503-580 X18	DE 2632-018 Y07	CH -621-224 D10	DK 7605-797 Y37+	US 4142-847 B11
CH -532-907 U19	J8 1032-003 D34	CH -624-091 D34	FR 2281-069 X22	J5 2014-797 Y11	CH -621-224 D34	FR 2336-136 Y43+	CH -613-845 B45
GB 1339-503 U49	40254-V D	63160-W DE	J5 1045-067 X22	NO 7602-543 Y11	17664-Y ABD	PT -65-977 Y49+	GB 1570-410 C27
CA -942-989 V11	DE 2355-183 V22	J5 0094-154 W38	US 4061-789 Y50	SE 7608-158 Y13	NL 7609-290 Y10	J5 3015-494 A13	SU -776-578 D34
US 3873-747 W14	FR 2206-963 V38	GB 1447-745 X35	GB 1508-007 A16	FR 2318-631 Y18	DE 2637-594 Y17	AT 7609-581 B22	63043-Y DJ
NL -154-099 Y37	US 3852-199 V51	CA 1040-921 A45	AT 7506-091 A18	DK 7603-129 Y19	J5 2044-862 Y20	AT 7802-917 B31	BE -852-000 Y36
DS 2119-351 D34	CH -567-875 W46	J8 1031-930 D34	IT 1040-410 C14	ZA 7603-411 Y26	FR 2321-520 Y21	GB 1573-718 C35+	DE 2608-480 Y37
T	GB 1449-505 X38	66294-W ABD	CA 1078-662 C25	GB 1491-178 Y45+	GB 1513-194 A23	US 4242-449 D03+	NL 7702-054 Y37
12801-T DE	CA 1007-994 Y16	J5 0052-274 W40	CH -624-280 D34	IL -49-798 B08	US 4086-199 A24	CA 1093-997 D09+	SE 7702-205 Y41
BE -771-164 T08	J4 9135-270 D34	J8 1031-949 D34	09926-X ADJ	CA 1054-147 B22	CH -606-246 A48	SE 8006-064 D14	J5 2106-375 Y42
BE 7111-098 T09	J8 1032-004 D34	66295-W ABDF	J5 0073-898 X06	CH -624-410 D34	DS 2637-594 D28	J8 1032-316 D34	NO 7700-697 Y42
DE 2140-497 T09	65168-V ADEG	J5 0052-275 W40	J8 1032-255 D34	96264-X ADEF	J8 1032-331 D34	DE 2647-895 Y19	FI 7700-633 Y46
J4 7004-765 T12	J4 9012-045 V37	J8 1031-951 D34	14942-X ABD	BE -842-869 X52+	22679-Y ADEF	NL 7611-711 Y19	DK 7700-883 Y47
FR 2104-281 T29	J8 1032-283 D34	69274-W AD	BE -832-366 X09+	ZA 7603-484 Y26	J5 2021-031 Y13+	J5 2054-093 Y24	FR 2342-785 Y51
GB 1338-763 U48	82595-V D	DE 2513-931 W42	NL 7509-667 X10+	ZA 7603-483 Y26	FR 2319-632 Y19+	US 4035-236 Y29	BR 7700-923 A03
DS 2140-497 C21	BE -814-874 V48+	BE -827-490 W43	DE 2535-951 X10+	CS 7603-490 A10	DE 2550-548 Y20	FR 2328-718 Y30	DD -129-110 A10
J8 1032-300 D34	NL 7406-306 V48+	NL 7504-018 W43	SE 7509-008 X15+	CS 7603-491 A10	US 4129-563 A51+	DD -127-455 Y51	PT -66-251 A29
74793-T D	DE 2422-655 V49+	SE 7502-928 W48	FI 7502-275 X19+	CH -604-813 A41	US 4164-500 B35+	DE 2660-015 A27	US 4130-365 B01
NL 7205-871 T47	NO 7401-700 W01+	NO 7500-898 W49	DK 7503-652 X21+	CH -624-254 D34	GB 1553-246 B39+	GB 1530-730 A44	CS 7701-315 B14
DE 2220-296 T48	SE 7406-287 W01+	J5 0142-699 X02	J5 1051-582 X25+	Y	US 4183-851 C04+	DE 2660-261 B09	AT 7701-312 B40
BE -782-868 U01	DK 7402-522 W03+	DK 7501-437 X03	FR 2288-748 X34+	02418-Y AD	US 4187-226 C07+	IL -50-747 C09	IL -551-555 C35
FR 2134-687 U09	FI 7401-432 W06+	FI 7500-976 X04	BR 7505-186 X34+	DE 2628-890 Y02	CH -624-393 D34+	DS 2647-895 C22	GB 1575-417 C39
ZA 7202-866 V02	J5 0053-404 W28+	FR 2266-742 X04	ZA 7505-140 X35	BE -843-372 Y03	25132-Y DE	J5 5148-085 D04	CH -624-309 D34
J4 9045-916 V27	GB 1429-143 X13+	GB 1422-294 X04	IL -47-893 A33+	NL 7606-963 Y03	US 4014-929 Y14	J5 5148-099 D04	74356-Y ADE
CA -960-935 W05	FR 2283-220 X24+	BR 7501-950 X06	CA 1053-595 B22+	FR 2317-346 Y16	BE -848-388 Y20	CH -624-143 D34	DE 2710-468 Y42
GB 1395-006 W21	CH -591-557 Y41+	DD -117-234 X14	HU T017-195 B45	GB 1555-531 B46	DE 2652-216 Y22	BE -848-533 Y21	J5 2117-442 Y45
CH -577-029 X29	DE 2462-647 A03+	ZA 7502-131 X21	DK 7901-230 B48+	CA 1071-519 C10	SE 7612-776 Y26	DE 2552-506 Y22	FR 2345-997 A04
AT 7203-743 X50	DE 2462-649 A03+	PT -63-587 X27	SU -687-080 C21	CA 1083-745 C35	J5 2062-225 Y27	NL 7612-101 Y23	GB 1522-125 A34
US 4009-113 Y09	DE 2462-648 A03+	HU T011-928 X33	SE 8006-247 D08+	DS 2628-890 D34	NO 7603-901 Y27	FR 2332-320 Y34	DS 2710-468 B20
J8 1032-359 D34	CH -594-729 A09+	CA 1031-332 A22	AT 7506-293 D11+	09291-Y D	DK 7605-151 Y31	BR 7607-745 Y42	US 4160-823 B30
75436-T CD	CH -594-730 A09+	CH -602-796 A37	US 4267-273 D22+	BE -844-599 Y06	FR 2331-544 Y33	US 4123-375 A45	J8 1032-286 D34
J4 7023-527 T47	SE 7714-497 A23+	AT 7502-566 A40	AT 7804-554 D29	NL 7508-982 Y08	BR 7607-648 Y43	CA 1066-982 B50	79183-Y DJ
J8 1010-284 D14	SE 7714-496 A23+	J7 8047-280 B03	AT 7804-553 D29+	DE 2633-645 Y08	AT 7608-511 A11	AT 7608-607 C14	US 4055-494 Y44
J5 6081-511 D34	CA 1035-234 A32+	SU -637-089 B37	CH -624-431 D34+	DK 7603-375 Y16	GB 1505-048 A12	CH -624-427 D34	BE -863-891 A25
U	DS 2422-655 A32+	IT 1035-163 C04	44105-X ABDE	FR 2319-412 Y19	CA 1072-578 C11	42182-Y BD	DE 2801-232 A34
15478-U D	AT 7403-884 B01+	DS 2513-931 C10	BE -837-579 X24	GB 1508-252 A16	CH -624-428 D34	J5 0105-888 Y24	NL 7801-377 A35
BE -789-860 U11	CA 1052-221 B16+	RO -76-424 D34	DE 2600-708 X31	CH -624-277 D34	25210-Y D	J8 1031-954 D34	SE 7801-642 A39
DE 2154-088 U21	DS 2462-649 C27+	71523-W BD	SE 7514-748 X35	09294-Y BCD	BE -846-713 Y15+	48768-Y ADEJ	NO 7800-331 A40
ZA 7206-628 U27	DS 2462-647 C33+	J5 0063-195 W43	DK 7600-144 X41	BE -844-613 Y06+	DE 2547-134 Y18	BE -850-110 Y28+	ZA 7800-454 A42
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23673-A D	J8 1031-959 D34	US 4149-551 B18	GB 1595-911 D34+	J5 4053-110 B23	GB 2026-516 C06	DE 2943-425 C20	US 4281-997 D34
DE 2742-479 A13		CA 1089-367 C50		J8 1032-353 D34	J5 5009-691 C09	BE -879-602 C20	
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DD -131-883 A36						GB 2034-724 C24	
GB 1543-134 B13						FR 2439-7	

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GB 2043-456 C41	PT --71-857 D13	FR 2466-732 D25	WP 8102-114 D34 +	J5 6081-399 D34	SE 8008-115 D28 +		
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US 4281-992 D34 +	SE 8006-889 D22	NL 8020-372 D34	J5 6083-355 D34	FI 8003-837 D34	FI 8003-798 D34		
	FR 2466-276 D25					60488-D DE	60737-D D
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US 4281-421 D34	17431-D BD	GB 2068-997 D34	BE -886-242 D23 +	DE 2950-032 D28	J5 6084-366 D34 +	60489-D D	
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J5 5137-035 C49		GB 2066-839 D29 +	SE 8007-996 D28 +	48059-D BCD	FR 2472-541 D34	CH -624-012 D34	60747-D BD
GB 2049-720 D01 +	25375-D D	FR 2472-606 D34 +	GB 2066-039 D28 +	EP --30-719 D27			EP --33-578 D34
J5 6072-654 D31	WP 8100-707 D14	NL 8007-006 D34 +	FR 2469-877 D30 +	J5 6083-489 D34	52130-D DJ	60503-D D	
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80981-C DEJ	DE 3034-142 D15	BR 8100-047 D33	GB 2063-289 D23 +	FI 8003-756 D34	52156-D BD		EP --33-584 D34
DE 2915-953 C46	GB 2060-690 D19	NL 8007-031 D34	BR 8007-314 D24		GB 2066-816 D29	60519-D DH	
US 4281-518 D34 +	FR 2464-995 D23		J5 6082-899 D34	48101-D BD	FR 2472-611 D34	DD -148-465 D34	60761-D BDE
	US 4282-315 D34	36369-D BD		EP --30-815 D27			EP --33-604 D34 +
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FR 2470-638 D31	EP --26-539 D16 +		CS 7800-521 C23	NO 8003-750 D31	BR 8008-286 D31	60561-D D	
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86325-C DE	27719-D AD	FR 2467-595 D27	EP --33-709 D34	FR 2471-391 D32	GB 2068-726 D34	60576-D D	
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WP 8100-342 D10 +	DE 3036-872 D17	BE -887-033 D22	J5 6081-178 D34		BR 8100-127 D34		EP --33-686 D34
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WP 8002-557 C50 +	BR 8008-162 D30		FI 8003-435 D34	FR 2471-812 D33	55648-D D	60626-D DEJ	
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	FR 2472-346 D34	SE 8007-997 D28 +			60442-D D		60826-D D
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60845-D

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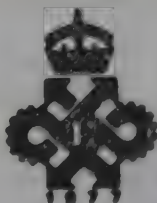
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ABSTRACTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	10 AUG - 16 AUG 81	887,430 - 887,520
-Non Delayed	31 JUL 81	888,344 - 888,453
BRAZIL	4 AUG 81	7,808,702 - 8,103,088
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*Includes numbered Basics from Weeks D29 (CPI) and D30 (EPI)

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code		Main CPI Class for Section		Patent No	
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MEDA-		A89		69369W/42 =US 3964-992	
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)					
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B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26					

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DERWENT PATENTS SERVICES

1981 INSTRUCTION CLASSES REGISTRATION FORM

A round of Derwent instruction classes, to be held during September, October and November 1981, will be of very special significance to both new *and* existing users.

The Syllabus of classes is as follows:

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A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.

Elementary BCE Coding (IC3)

A two day course for new users of CPI Sections BC & E codes with special reference to the New Chemical Code, again with discussion of examples. Max. 20 participants.

Advanced A Coding (IC4)

A two day course for those with previous training and experience of the CPI Section A codes. Max. 20 participants.

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A two day course for those with previous training and experience of CPI Sections BC & E codes, with special reference to the New Chemical Code and coverage of complex examples. Max. 20 participants.

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and General Overview (IC6)

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DERWENT PUBLICATIONS LTD. Rochdale House 128 Theobalds Road London WC1X 8RP England

Telephone: 01-242 5823 Telex: 267487 Cables: DERWENTINF, LONDON

USA Office: Suite 500, 6845 Elm St., McLean, Va. 22101

D1: FOOD; FERMENTATION

D11: BAKING

LOUE/ ★ D11 62693 D/35 ★FR 2472-917
Bakery hand tool to cut striations in bread dough piece - uses blades fixed beneath cutter plate displaced by solenoid plunger
LOUESSARD M 09.10.79-FR-025030

X25 (10.07.81) A21c-11/12

09.10.79 as 025030 (448HM)

An electrically powered hand tool is for bread prodn. in a bakery. The tool is equipped with blades to form decorative striations in the top of a dough piece prior to baking. The blades are removably fixed on the underside of a cutting plate contained in a housing which the operator position over the dough piece. A solenoid plunger is activated to ram the cutting plate down on to dough surface so that the blades dig into the dough.

The housing is pref. suspended from the ceiling for improved manoeuvrability. (5pp)

VOGE/ ★ D11 62723 D/35 ★FR 2473-267
Cake having a long storage time not contg. flour - contg. sugar, egg white, ground almonds or hazel nuts, chocolate or cocoa

VOGEL A 09.01.80-FR-000407

(17.07.81) A21d-13/08

09.01.80 as 000407 (597)

The mixt. is cooked in a moderate oven. Before mixing commences a small amt. of liquid coffee is pref. added. Egg yolk may also be pref. added. Before cooking, a small amt. of vinegar and/or perfumed alcohol is pref. added to the paste. Three pref. recipes are as follows:- (1) 130-150g non-blanchd grated almonds, 4 eggs, 6-10 cl of water, 3 teaspoons of soluble coffee, 60-120g chocolate or cocoa and 100-120g sugar; (2) 105g non-blanchd grated almonds, 6 eggs, 140g softened chocolate and 150g sugar; (3) 170g grated hazelnut, 6 egg whites, 1 teaspoon of alcohol vinegar, 1 teaspoon of rum or perfumed alcohol, 100g chocolate powder, 120g sugar.

The cake does not contain flour or fats and does not require preservatives, special packing or cold storage. (7pp)

BAKP ★ D11 62820 D/35 ★GB 2069-306
Travelling baking oven - in which gas flows in progressively cooler path along bottom of conveyor and back along its top

BAKER PERKINS LTD 16.02.81-GB-004737 (19.02.80-GB-005599)

(26.08.81) A21b-01/24

16.02.81 as 004737 (525HM)

In a baking oven of the type in which articles to be baked are passed through the oven on a conveyor at least two heaters are provided in a closed circuit gas heating system. The system includes a first blower/heater at the entry end which directs hot gas along a path under the conveyor. At the outlet end of the oven the gas is transferred back to the entry end along a path above the conveyor. As the gas proceeds along the path so it cools, and a heating environment having a desired reduction along the underside of the conveyor and a desired increase along the upperside is produced. At least one further heater is located in the circuit to boost the heating to give a required pattern.

A controllable heating pattern using but a single system. Small circulation volume and less maintenance. (9pp)

ADUM- ★ D11 D/35 ★IL --56-861
Dough additives - comprising metal salts of lactic acid and fatty acid ester(s) of sorbitan

ADUMIM CHEM LTD(YISS) 13.03.79-IL-056861

E12(E17) (31.07.81) A21d-02/06

LIBE/ ★ D11 D/35 ★IT 1051-205
Automatic charging and discharging of oven with bread

LIBERIG 29.03.74-IT-082215

(21.04.81) A21b

SAVO/ ★ D11 D/35 ★IT 1051-464
Appts. for expanding bread and pastry products

SAVOINI O 10.12.75-IT-070024

(21.04.81) A21c

NIOF ★ D11 63551 D/35 ★J8 1032-885
Bread prepn. - involves incorporating collagen peptide and water insol. sugar from soybeans into dough (J5 1.11.79)

NIPPON OILS & FATS KK 22.04.78-JP-047205

(30.07.81) A21d-02/36

22.04.78 as 047205 (22RH)

In dough for bread, collagen peptide having mol. wt. of 500-10000 and water insol. sugar component originating from soybean are incorporated. Bread prepd. has good properties, good processability and rapid ageing, etc. (J54140753) (4pp)

CANN= ★ D11 63663 D/35 ★SU-786-964
Expanded cereal flakes prodn. - by shaping and thermally treating mixt. of grain and soya bean flour, water and additives using live steam

CANNING IND RES INS 26.02.79-SU-731376

(25.12.80) A231-01/18

26.02.79 as 731376 (70VE)

Expanded cereal flakes are produced by mixing flour with salt, sugar and other components and water, cooking the dough, cooling, shaping and thermally treating. The process is accelerated and the quality of the product is improved by introducing water in such amt. that the moisture content of the mixt. is 38-45%; the cooking is carried out with live steam at 105-120 deg.C. for 10-30 min; the thermal treatment is carried out with a heat carrier having temp. of 150-170 deg.C; the air speed is 5-8 m/sec.; the duration is 2-5 min. By this method the denaturation of proteins is diminished. (2pp)

QUAK ★ D11 64100 D/35 ★US 4283-424
Frozen pizza prod. for microwave cooking - has two crust elements of different moisture content

QUAKER OATS CO 06.08.79-US-063945

(11.08.81) A21d-13

06.08.79 as 063945 (67AS)

The prod. comprises a pizza sauce filling located on a crust portion comprising a lower crust element of baked cracker type dough material having a moisture content below 5% and an upper crust element of baked bread dough type crust having a moisture content of 20-40%. The lower crust element absorbs vapour phase moisture created during microwave cooking of the upper crust element and the filling.

The absorption of moisture by the lower crust element prevents undesirable increase in the moisture content of the upper crust element and in turn prevents the pizza developing an unpalatable taste due to excess moisture content in the crust. (5pp)

PILL D11 87081 C/49 = US 4283-427
Susceptor appts. used in oven or furnace - contain chemical susceptor unit contg. polar solvent combined with solute

PILLSBURY CO 19.12.78-US-970898

E19 F06 J09 + Q74 (E37 X25 X27) (11.08.81) *J55104-648

+ H05b-06/64

19.12.78 as 970898 (963KB)

Lossy susceptor device for microwave energy is claimed, which on continued heating by microwave radiation (I) has a chemical susceptor portion (II) which becomes transparent to (I). Device comprises (a) (II) comprising a solute and a polar solvent, the amt. of solute being at least sufficient to depress the vapour pressure of the solvent by at least 25% of its b.pt. at standard pressure; and (b) a holder for (II) which includes a vent permitting solvent escape when (II) is exposed to (I).

Pref. solute is a Gp.IA or IIA salt, the solvent being water. Also claimed are package for holding a food prod. for microwave cooking, a susceptor as above and foodstuff having low moisture content and density. (15pp)

CARN- ★ D11 64103 D/35 ★US 4283-430
Filled tubular baked food prod. - having shell prepd. from high sugar content batter giving thermoplastic properties

CARNATION CO 14.09.79-US-075613 (14.04.77-US-787697)

(11.08.81) A21d-13 A23g-03

14.09.79 as 075613 (955AS)

In the prodn. of a tubular food prod. having a core of edible filling material, a semi-liquid batter having a relatively high content of mono- or disaccharides is placed between vertically spaced

opposed heated moving surfaces to form a continuous layer of controlled thickness. The batter layer is passed through a heating zone where it is baked to form a continuous pliable thermoplastic sheet having a temp. of at least 212 deg.F and moisture content not more than about 5 wt.%, which is held at a temp. above 210 deg.F and passed through a forming tube in which the edges are raised and the sheet is curved until the edges are butted together to form a continuous tube. A filling is injected at a point below that at which the edges are joined. The tube is then cooled and cut into pieces of desired length.

The batter having a high sugar content gives baked sheets which are pliable when hot but crisp and rigid when cold. The process is continuous and involves fewer steps than known processes. Also a wide range of fillings is possible as the tube is not heated after filling. (13pp)

GIOR/ ★ D11 64104 D/35 ★US 4283-431
Multilayer pizza prodn. - by covering ingredients on cooked pastry with uncooked pastry subsequently cooked with another ingredient layer

GIORDANO G 12.06.79-US-047687

(11.08.81) A21d-13

12.06.79 as 047687 (006KB)

A double-decker pizza is made by putting a layer of ingredients, including cheeses and tomato sauce, on a cooked pastry layer, and covering with uncooked pastry for partial-cooking of the assembly before adding a topping of more ingredients and finishing the cooking.

Pref. the ingredients of the topping include tomato sauce. The double-decker pizza resists drying-out at room temp. (2pp)

STAU ★ D11 64107 D/35 ★US 4283-431
Protein enriched biscuits - contg. whey protein which has been oxidised

STAUFFER CHEMICAL CO 26.12.78-US-973506 (15.12.76-US-750946)

(11.08.81) A21d-02/34

26.12.78 as 973506 (955NS)

Biscuits contain at least 6.68 wt.% based on wt. of all ingredients excluding water, of oxidised whey protein concentrate. The amount used is sufficient to raise the protein content of the biscuit by no more than 20%.

The whey may be acid, sweet or a mixt. of both. At least 40% pref. at least 60% of the sulphhydryl gps. in the protein are oxidised. Any food grade oxidant may be used; esp. pref. are metal peroxides and/or hydrogen peroxide. Oxidn. is carried out at 40-50 deg. C and takes 15 mins.-1 hr. The oxidised whey is purified and spray dried. Pref. the biscuits contain 100-250 ppm esp. 175-225 ppm residual peroxide.

The biscuits have good structure properties. No change in the recipe is required except in the proportions of flour and water. (6pp)

See Also

D16 SU 786955

D12: MEAT; FISH PROCESSING

GENE/ ★ D12 62369 D/35 ★DD -148-583
Flattening device for over thick fish - using contra:rotating rolls with adjustable roll gap in chute

GENENTZ A 25.01.80-DD-218641

(03.06.81) A22c-07

21.01.80 as 218641 (39BZ)

Fishes which are too thick to be accepted in standard fish processing machines are pressed flat in a chute by two contra-rotating rolls. One of the rolls is adjustable at right angles to the direction of transport and is preferably fitted with axial bars. The fishes slide down a chute and enter the roll gap between contra-rotating rolls. The entry of fish in the roll gap is assisted by axial bars which are fixed to the periphery of the roll. This requires no extra labour and ensures a better continuity in automated fish processing. (9pp)

VISK- ★ D12 62405 D/35 ★DE 3004-719
Continuous internal coating of cellulose hose - by maintaining constant level of aq. suspension in hose loop

VISKO OY AB 08.02.80-DE-004719

A97 P42 (20.08.81) A22c-13 B05c-07/04 B05d-07/22

08.02.80 as 004719 (39KB)

A hose, esp. a synthetic hose made of regenerated cellulose, is continuously coated internally with an aq. synthetic suspension by keeping the hose filled with the suspension in a loop before it ascends into a vertical dryer. An infrared unit, humidifier and press roll pair in a horizontal line keep the hose inflated before it is deflated and coiled up.

This produces a homogeneous internal film which makes the cellulose hose moisture- and gas-tight. (15pp)

LANG/ ★ D12 62536 D/35 ★DE 3006-029
Sausage pressing machine - with turntable spider for press moulds and suspended press cylinder

LANG H 18.02.80-DE-006029

(20.08.81) A22c-07

18.02.80 as 006029 (39DJ)

A machine to press sausage, esp. the Landjaeger type, into shape consists of a press table on which a star-shaped spider, carrying several radial press moulds can be revolved on rollers. A power cylinder, suspended on a bracket, has a press cylinder for entering each press mould in turn, with springloaded mould closure sheets protruding beyond the underside of the piston.

A turntable which can roll on rollers over a press table consists of four radial carriers, each for a press mould for two sausages. The bottom of each mould has a turned-down end with a roller and is hinged so that it can be tilted for easy discharge when the roller runs up on a cam.

SLAG- ★ D12 D/35 ★DK 7904-257
Cohered meat pieces product mfr.

SLAGTERIERNES FORSK 10.10.79-DK-004257

(03.08.81) A23b

FARH D12 73767 B/41 =DS 2960-33
Tubular package sheath - with plastic coating for inside of outside location after filling with contents esp. sausage meat

HOECHST AG 31.03.78-DE-813847

A92 Q31 (20.08.81) *DE2813-847 A22c-11/02 B65b-03/04

24.03.79 as 960338 Based on EPG004620 (160DB)

The method simultaneously fills and inverts a flexible wrapping sleeve, coated on the outside with material particularly sausage meat. The wrapping, in the form of a hollow bar rucked together, is pulled apart to smooth out the folds over a short distance and closed at one end, and thrust over a straight length of rigid pipe through which the material is delivered into it.

The straight length of wrapping, free of folds and with a closed end at the front, is moved against the pipe and inverted inward through 180 deg. as further unfolding takes place. (8pp)

PRAN/ ★ D12 D/35 ★IT 1051-04
Domestic sewage water purifier

PRANDONI A 17.12.75-IT-030380

(21.04.81) C02f

LOMB/ ★ D12 D/35 ★IT 1051-25
Meat juice for food products

LOMBARDO F 07.10.71-IT-009712

(21.04.81) A23l

PRIZ/ ★ D12 D/35 ★IT 1051-2
Automatic equipment for continuous sterilisation of milk

PRIZZONE E 25.09.71-IT-082534

(21.04.81) A23c

SART/ ★ D12 D/35 ★IT 1051-2
Fungal mycelium prodn.

SARTOR A P 08.10.71-IT-082535

P13 (21.04.81) A01h

BCRC ★ D12 D/35 ★J5 6082-2
Prod. of canned fish food product

BRIT COLUMBIA RES 14.12.79-CA-341980

(11.07.81)

ALFA ★ D12 63598 D/35 ★ SE 7909-929
Fish meal and oil centrifuge - in which viscous fluid and sediment are fed to heated tubes leading to steam and evaporated product separation chamber

ALFA-LAVAL AB 30.11.79-SE-009929
(29.06.81) A23k-01/10
30.11.79 as 009929 (1444WB)

In the extraction of fish meal with high protein value, and fish oil from fish, the raw fish is broken up and oil is sepd. from the heated pulp by a centrifuge. The oil leaves from a special outlet, the sludge and other liquid are conc. to give a fish meal of low water content.

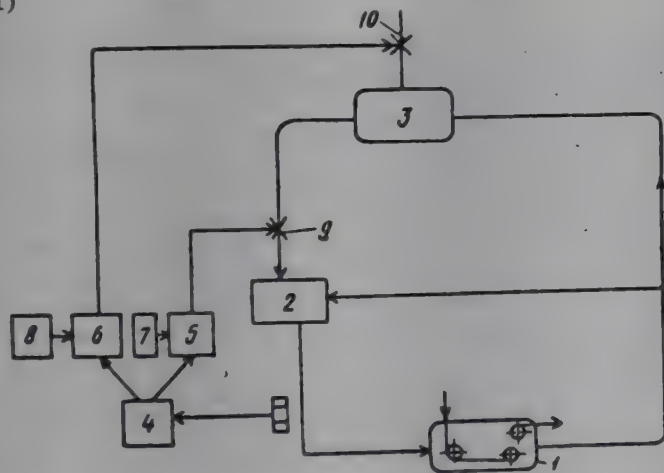
The sludge and other liquid, after leaving the centrifuge, are disintegrated and then supplied to a concentrator and pass by plug flow through one or more longitudinal tubes which are indirectly heated. The inner walls are continually cleaned by a scraper and the outlet discharges into a sepn. chamber, then the conc. product is removed for drying. (Provisional Basic previously advised in Week D29) (9pp)

AIRA/ ★ D12 63629 D/35 ★ SU-785-385
Plastics, e.g. sausage skin, prodn. process control - by making heat transfer agent flow to regeneration plant less than flow of strengthening soln. to mixer to allow for load variation

AIRAPETYANTS G M 03.01.79-SU-711555
A31 T06 X25 (A97) (10.12.80) D01f-01 G05d-27
03.01.79 as 711555 (840GW)

Controlled prodn. of plastic skins involves stabilising the concn. of the moulding soln. by varying the strengthening soln. flow-rate at the mixer (2) and the heat-transfer agent flow at the regeneration plant (3). The process is made more accurate and is used for process control in the foodstuffs industry. By making the heat-transfer agent flow less than the strengthening soln. flow by an amt. at least equal to any deviation of the moulding concn. from the permissible range on rated load, sausage skin strength can be increased by allowing for the number of spinning machine (1) in operation.

The moulding soln. concn. is measured by the sensor (4) and regulated by the strengthening soln. (5) and heat-transfer agent (6) flow-rate regulators, using the setters (7,8). The flow of strengthening soln. into the mixer is varied by the valve (9), and the heat-transfer agent flow by valve (10). Bul. 45/7.12.80 (2pp Dwg.No.1)



CONA/ ★ D12 63938 D/35 ★ US 4282-832
Poultry pinning and hair-removing machine - has rotating columnar structures supporting flexible fingers for inflection engagement with carcass

CONAWAY E T 09.11.79-US-092889
(11.08.81) A22c-21/02
09.11.79 as 092889 (67HM)

Machine comprises a frame defining a passage for receiving a poultry processing line having a no. of elongated columnar structures rotatably mounted on the frame at each side of the

passage. The columnar structures are provided with flexible fingers for free form inflect engagement with each poultry carcass moving through the passage. The poultry carcasses are cantod towards one side of the passage to facilitate inflect engagement by a guide mounted on the frame.

The poultry is mechanically pinned and de-haired. This avoids singeing the carcass over an open flame and the possibility of searing it so that it is unusable as a food prod. (6pp)

GRAH/ ★ D12 63939 D/35 ★ US 4282-633
Poultry processing plant - has divider for dividing line of suspended poultry into two for inspection

GRAHAM K Z 13.11.79-US-093747
(11.08.81) A22c-21

13.11.79 as 093747 (67BZ)

The plant comprises a conveyor for moving a line of poultry suspended downwardly on hangers and a line divider for dividing the line into two for inspection. Alternate hangers and birds carried by them are displaced laterally w.r.t. the direction of movement of the conveyor without imparting longitudinal forces to the displaced hangers. The hangers are displaced by a surface which extends parallel to the conveyor line and progressively tilts the hanger outwardly from beneath the line so that the birds are projected towards an inspection station.

Used for inspection of eviscerated birds while the viscera is still hanging from the bird so that a diseased bird can be identified from its viscera. (9pp)

FARH D12 46329 C/27 = US 4282-904
Wrinkled sausage skin and support sleeve - with sleeve ends folded inwardly for retaining flanges

HOECHST AG 11.12.78-DE-853400
A97 Q34 + Q67 (11.08.81) *DE2853-400 + F161-09
06.12.79 as 100745 (1376AT)

Article for use in making sausages consists of a hollow cylindrical sheath inside which an open-ended rod of gathered cellulose hydrate sausage casing is located. The sheath is of a flexible sheet of fusible thermoplastic polymer.

Outwardly projecting ends of the sheath are twisted by at least 30 deg. and buckled to form permanent helical folds forming end walls defining a small passage at each end through the casing can be dispersed. The folds are at least partially fused. The end walls position the rod when soaked in water. (5pp)

FARH D12 11306 C/07 = US 4283-426
Cellulose hydrate sausage skins - with age-resistant and extensible barrier coating of vinylidene chloride copolymer

HOECHST AG 27.07.78-DE-832926
A97 Q34 + P42 Q67 (A11 A14) (11.08.81) *DE2832-926 + A23g-01 B05d-03/12 B65d-81/34 F161-11
25.07.79 as 060366 (963KB)

Packaging material comprises a base layer of cellulose hydrate having on 1 surface a film coating (I) which is impervious to water-vapour, water and oxygen. (I) has a thickness corresp. to a wt./unit area of 3-10 g/sq.m.

(I) comprises a vinylidene chloride (II) copolymer contg. 90-92wt.% (II), 5.5-7wt.% acrylonitrile, 1.5-3.5wt.% methyl methacrylate and 0.5-1.5wt.% itaconic acid. The copolymer has a relative viscosity of ca. 1.04 measured at 23 deg.C in a 0.1wt.% soln. in mixt. of THF and toluene in a ratio of 70:30, and a relative viscosity of 2.8 measured at 23 deg.C in a 3wt.% soln. in mixt. of THF and toluene in a ratio of 70:30.

Used as casing for boiled and cooked sausages. (12pp)

See Also

D13 GB 1596271 D13 GB 1596294

D13: OTHER FOODSTUFFS

SAGR/ ★ D13 62467 D/35 ★ DE 3005-305
Animal feed prodn. from plant residues and waste material - by shock drying, milling to particle size below 2 MM., and sieving out fibre particles larger than 0.35 to 0.75 mm

SAGREDOS A 13.02.80-DE-005305
C03 (20.08.81) A23k-01/14

13.02.80 as 005305 (280DJ)
In a new process for the prodn. of a feedstuff or feedstuff component from plant residues and waste materials, (A) the plant material is shock dried so as to reduce the moisture

content as rapidly as possible to 10% or less (pref. ca 5-8%), (B) the dried material is ground to a particle size such that 98-100% has a particle size below 2mm but at least 8% has a particle size above 0.5mm, and (C) the ground material is sieved so as to give a fraction with a minimum particle size in the range of 0.35 to 0.75mm (depending on the nature of the plant material).

The process utilizes otherwise waste materials and gives a readily absorbable product suitable for feeding to practically all warm-blooded animals (e.g. hens, calves, sheep, pigs, cattle, goats) which retains practically all of the nutrient value of the

raw material but which has markedly reduced raw fibre content and markedly enhanced digestibility. (13pp)

FARH ★ D13 62503 D/35 ★DE 3005-642
Free-flowing solids prodn. from salinomycin culture broth - by fermenting to minimum extractable fat content and spray drying with the addn. of anticaking agents

HOECHST AG 15.02.80-DE-005642

B04 C03 (D16) (20.08.81) A23k-01/17 A61k-35/66

15.02.80 as 005642 (280RH)

In isolation of solids from salinomycin culture broths, (a) the lowest possible level of extractable fats and fat-like substances is attained in the fermentation, and (b) a physiologically tolerable anti-caking agent is added during the spray-drying. Salinomycin culture broth solids contg. physiologically tolerable anticaking agents are claimed.

Salinomycin is used as a growth and feed utilisation improving feed additive. It is also used in veterinary medicine as a coccidiostatic agent. Umpurified solids from salinomycin fermentations are suitable for use as feed additives. Observation of the conditions specified above gives a non-caking prod.; observation of either condition alone does not impart non-caking properties.

Pref. the salinomycin fermentation is continued until the extractable fat content has fallen to below 2%. The anticaking agent, which is pref. added before spray-drying, is pref. finely powdered calcium carbonate or silicic acid. (13pp)

BAEN- ★ D13 62545 D/35 ★DE 3006-158
Enriched cereal grain bird food prodn. - by soaking broken oat grains in soln. of active substances e.g. vitamin(s)

TETRA WERKE BAENS U 19.02.80-DE-006158

C03 (20.08.81) A23k-01/18

19.02.80 as 006158 (280KB)

In the prodn. of bird food by enrichment of cereal grains by introducing into a soln. contg. active substances and subsequently drying, the cereal grains are of oats and before introducing into the soln. are broken so as to expose their cross-section. Pref. the oats are hulled and then converted into groats using conventional equipment. Alternatively, each grain is broken at several points along its long axis to give pref. 2-4 pieces.

Used in prodn. of bird food enriched so as to give a predetermined protein and vitamin content. The broken oat grains have improved absorbency for the active substance soln. The treated grain is readily accepted by birds. (6pp)

BEWA- D13 39762 R/22 = DS 1959-824
Deep-frozen potato product

INST BEWARING LANDB (BEW) 04.12.68-NL-017389

(20.08.81) *BE-742-560 + A23l-01/21

28.11.69 as 959824 (047HM)

Prodn. of frozen fried potato prods. comprises cutting peeled potatoes into slices (10-25 mm thick), which are heated in water to 60-80 (pref. 65-75) deg. and then cooled to below 25 deg. the slices are then cooked in hot water or steam at 100 deg. for t min. such that the definite integral of the internal temp. T (deg.C) with respect to time, between the limits t and 0, is 300-900 (pref. 450-750) deg.C min., the slices are opt. cooled, grated or cut into small pieces, lightly fried in fat (opt. with additives) and moulded into cakes which are opt. fried on both sides; the prods. are then frozen. DS (4pp)

KORN/ ★ D13 62616 D/35 ★EP --33-975
Food material prodn. from dried banana - by forming a paste, mixing with other fruits and sugar, then drying

KORN H 12.02.80-DE-005104

(19.08.81) A23g-03 A23l-01/06

10.02.81 as 100916 (1251AT) (G) DE2720174 CH-544507 FR-606200 FR2182234 E(BE FR GB IT NL)

A food material consisting of dried 'fruit' or 'sugar' bananas is made by first mixing the original banana material, dried to nearly zero moisture content, with a dispersion medium to form a liq. or pasty mixt. This mixt. is combined with other fruit materials of approx. the same consistency and pref. also Chocolate, and homogenised.

The homogenised mixt. is then mixed with an aq. soln. of cane or beet sugar, and finally dried to a pasty mass for final use as sweets, confectionary etc.

The carbohydrate and sugar contents of the prod. can be adjusted, esp. it has a high sugar content so is useful as an energy-rich food e.g. for sportsmen or soldiers; for storage in case of emergency also a vitamin rich food additive or diet food. (8pp)

AJIN ★ D13 62644 D/35 ★EP --34-0
Nutrient compsn. contg. eighteen aminoacid(s) - useful for paediatric feeding

AJINOMOTO KK 08.02.80-JP-014428

B05 E19 (19.08.81) A23l-01/30

03.02.81 as 300433 (1251AS) (E) GB1371535 DE2654820 US41443 DE2759133 DE2909854 E(AT BE CH DE FR GB IT LI LU NL SE)

A nutrient compsn. includes, as wt.% of total amino acid component, Ile 4.5-6.08; Leu 8.7-11.78; Lys 6.58-8.9; Met 1.38-1.8; CysH 1.87-2.53; Phe 2.69-3.63; Tyr 3.79-5.13; Thr 4.30-5.82; Try 1.6-2.19; Val 4.65-6.29; His 2.43-3.29; Ala 8.32-11.26; Arg 6-8.12; Asp 3.4-4.9; Glu 6.47-8.76; Pro 8.46-11.44; Ser 7.66-10.36 (all L configuration) and Gly 1.96-2.66.

The amino acids may be present in the form of derivatives, adducts, and pref. represent 5-20 wt.% of the total compsn. Other components include carbohydrate, fat, oil vitamins, mineral preservative, emulsifier, flavouring, seasoning and water.

The compsns. are used in paediatric feeding, esp. for sick children. They can be given orally or by a tube into the intestine. (11pp)

UNIL ★ D13 62665 D/35 ★EP --34-0
Tri:glyceride compsn. for replacing cocoa butter - is mixt. of three di:satd.-oleyl glyceride(s) in specific proportions

UNILEVER LTD 07.02.80-GB-004109

(19.08.81) A23d-05

09.02.81 as 300525 (HM) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Compsn. (A) for replacing cocoa butter is a mixt. of palmitic-oleic-palmitic (POP), palmitic-oleic-stearic (POSt) and stearic-oleic-stearic (StOSt) triglycerides. Its compsn., recorded on ternary diagram, lies under the curve $(Z(Z^2) = 4(XY))$ (X and Z are respectively the proportions of StOSt, POP and POSt) and outside a polygonal segment defined by this curve and by the compsns. of palm mid-fraction (1), cocoa butter (2) and stearin (10).

The glycerides may be synthetic or may be 1,3-selectively (but incompletely) randomised fats. Compsns. can contain up to 30% other triglycerides and pref. have solids content about 3% at deg.C and at least 30% at 30 deg.C.

(A) are useful in chocolate compsns. (19pp)

INRA- ★ D13 62670 D/35 ★EP --34-0
Phosphopeptide prodn. from caseinate - by enzymatic hydrolysis and agglomeration with divalent cations

INRA INST NAT RECH 01.02.80-FR-002281

B04 (19.08.81) A23j-03/02 A61k-37/18

27.01.81 as 400117 (367AT) (F) FR2399213 FR2292435 2.Jnl. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of phosphopeptides (I) from casein-based materials containing phosphocaseinates of monovalent cations or their derivatives carried out by (a) subjecting the starting material to enzymatic hydrolysis with at least one proteolytic enzyme capable of reproducing the human protein-digestion process; (b) subjecting the hydrolysate to ultrafiltration to obtain a permeate containing the peptides from the hydrolysate; (c) adding at least one salt containing a divalent cation to agglomerate the phosphorylated peptides; (d) subjecting the mixt. to ultrafiltration to separate the phosphorylated peptides (II) from the larger agglomerated particles of (I).

Also claimed are (A) peptides (II) obtd. as above; phosphopeptides (I) obtd. as above in divalent cation (esp. Ca and/or Mg) salt form; (C) salts obtd. by replacing at least part of the divalent cations in (I) by trace elements; and (D) mineral salts of (I) having a total aromatic amino acid content of less than 0.2 (where NT equals total N x 6.38), and a free amino acid content of less than 3%.

(I) in Ca or Mg salt form can be used as dietetic foods, as additives (for increasing organic P to human levels), as medicaments, e.g. for correcting P, Ca or Mg deficiency. The trace element forms can be used to treat disorders associated with trace element deficiency or malabsorption. (42pp)

AGRO- ★ D13 62724 D/35 ★FR 24-0
Prodn. of forage by pressing and dehydrating vegetable matter at reduced cost by using dehydrator fumes to heat the evaporator

AGROPROTEINE IND 09.01.80-FR-000450

Q76 (17.07.81) A23k-03/02 A23n-01 A23n-17 F26b-21

09.01.80 as 000450 (448AT)

A process and an installation for the prodn. of pressed cake from fresh vegetable matter e.g. alfalfa. Process comprises pressing the vegetable matter to extract juice and leave a residue which is dehydrated. Effluent vapour from the dehydrator is

circulated through one circuit of an indirect heat exchanger, esp. of the shell and tube variety. Hot vapour from the dehydrator is washed and passed through the other circuit of the heat exchanger which separately exhausts cooled gases and condensate. This has the effect of raising the temp. of the satd. air in the other circuit of the heat exchanger which delivers a conc. juice in high humidity air from which it is separated.

The pressed cake pref. contains not more than 40 wt.% dry matter, esp. 30-40%. Exhaust fumes pref. leave the dehydrator at a temp. of 100-120 deg.C, at atmos. press and with a CO₂ content of 3-10wt.%. (31pp)

MARI/ ★ D13 62725 D/35 ★FR 2473-273
Non alcoholic drink prepd. by homogenising components - with juice and fruit extracts and adding magnesium L-aspartate
MARIOTTI A 16.01.80-FR-001149
E12 (17.07.81) A231-02/26
16.01.80 as 001149 (597BZ)

A pref. mixture comprises 800 g water, 100 g sugar syrup, 100 g fruit juice extract which are mixed and filtered with addn. of 51 mg of magnesium L aspartate and 2 mg ascorbic acid. The mixture may be aerated with CO₂. The additive enables better mixing, makes the mixture assimilable and refreshing, and suppresses the acid effects of the fruit and juice. (4pp)

COGE ★ D13 62733 D/35 ★FR 2473-313
Constant pressure bacterial filter partic. to sterilise milk or wine - has ceramic membrane supported by rigid ceramic porous tubular element

CIE GEN ELECTRICITE 11.01.80-FR-000581
P34 (D16) (17.07.81) A611-02/02
11.01.80 as 000581 (448HM)

A continuous steriliser for liqs. comprises a filter capable of trapping bacteria from the liq. The filter has a cylindrical, tubular element made of porous ceramic with pore dias. of 1 to 10 microns. the interior surface of the tube is lined with a ceramic membrane with pore sizes of 0.1 to 0.22 micron.

Liq. to be sterilised is pumped continuously into one end of the passage through the tubular element, where pressure is maintained at a predetermined value by an automatic pressure relief system. Sterilised liq. passes radially outwards through the wall of the tubular ceramic element to be collected in a surrounding reception tank.

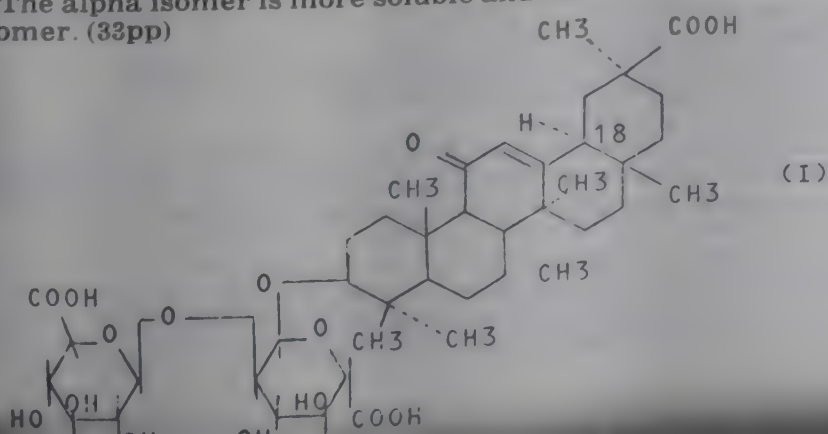
The pressure relief system pref. comprises a pressurestat controlling a relief valve which releases liq. for recycling back to the pump, or for passing onwards to a secondary bacterial filter system, or for drawing off laboratory samples. The element tube pref. has a wall thickness of between 0.5 and 2 mm. and the thickness of the membrane lining is between 10 and 50 microns.

Sterilising liq. food prods. esp. milk or wine. There is no loss of nutritive value or deterioration of flavour of the prod. in this sterilisation process. The filter is robust, corrosion resistant, easy to clean and withstands high pressures. (11pp)

MAZN ★ D13 62757 D/35 ★FR 2473-526
18:alpha glycyrrhizinic acid - sweetener surfactant and medicament, more soluble and stable than beta isomer
MARUZEN KASEI KK 29.02.80-JP-024023 (09.01.80-JP-000580)
B03 E13 (17.07.81) C07j-63
08.01.81 as 000218 (520AS)

18-Alpha glycyrrhizinic acid (I) and its salts are new. (I) has the same activity as the known 18-Beta isomer, i.e. sweetening agent, surfactant, and medicament, having the following properties: anti-allergic, anti-inflammatory, anti-viral agent, fibrinolytic, anti-ulcer agent, liver function stimulant, decholesterification agent, anti-tumour agent, antitussive, anti spasmodic, CNS inhibitor immunity inhibitor, sex hormone and suprarrenal cortex hormone activity, tissue reparation agent and mucus secretion stimulant.

The alpha isomer is more soluble and more stable than the beta isomer. (33pp)



INFL D13 64861 Y/36 = GB 1596-25
Flavouring and aroma enhancers for foodstuffs and perfumes comprising heptanonol or thiol ether derivs.

INT FLAVORS & FRAGR INC 07.10.76-US-730538 (15.09.76 US-723529)

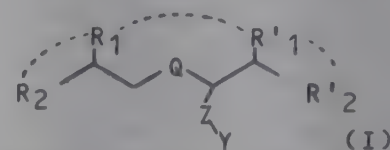
E17 (D23) (26.08.81) *US4045-491 C07c-49/17 C07c-149/14 C11d-03/50 C11d-09/44 + A231-01/22 A61k-07/46 C07d-153/*

30.08.77 as 036255 (393AS)

Alpha-oxy(oxo)sulphides, ethers, or mercaptans of formula (I) are novel and useful for augmenting or enhancing the aromas or tastes of foodstuffs, chewing gums, medicines, tobaccos, chewing tobaccos, flavouring compsns., perfume compsns., colognes and perfumed articles and detergents.

Q is -CO- or -CHOH. Z is S or O. When R₁, R₂, R'₁ and R'₂ are taken separately, then R₁ and R'₁ are the same or different and are H or CH₃. When R₁ and R₂ and R'₁ and R'₂ are taken together with attached C's, R₁ and R₂ form phenyl and R'₁ and R'₂ form phenyl. When Z is S, R₁ and R'₁ opt. join to complete cyclododecyl. Y is H, 1-4C alkyl, 3-4C alkenyl, acetyl, methoxycarbonyl-methyl or 1,3-diethylacetyl.

Proviso is that Y is H when either (i) R₁ and R'₁ complete cyclododecyl and Q is -CO- and R₂ and R'₂ are H, or (ii) R₂ and R'₂ are H; R₁ is C₂H₅ and R'₁ is C₃H₇; and Y is not H when R₁ and R'₁ are H and R₂ and R'₂ are both H or both CH₃ and Q is -CO-. (156pp)



BIOT- ★ D13 62784 D/35 ★GB 1596-271
Textured protein foods prodn. from spun protein fibres - with incorporation of non-aligned fibres

BIOTECHN PROC LTD 12.04.76-GB-014779 (05.04.76-GB-013709)

(D12) (26.08.81) A23j-03

04.04.77 as ----- (367HM)

Prodn. of textured protein prods. is carried out by stacking or winding groups of spun protein(SP) fibres to form a series of flat layers, and incorporating layers of largely untextured binder (opt. contg. chopped SP fibres) between the SP fibre layers.

The improvement comprises (a) incorporating natural edible vegetable fibres in the product so that these fibres are not aligned with the SP fibres, and/or (b) incorporating chopped SP fibres which are only partially aligned with each other or are randomly oriented, and/or (c) orienting the SP fibre layers so that the fibres in one or more layers are at an angle to those in at least one other layer.

The prods. are useful as meat or cheese analogues. They have improved texture, physical strength and cohesion. (11pp)

MRSC D13 65287 A/37 = GB 1596-294
Textured food product similar to meat in structure - contg. ionic gelling agent and non-toxic reactive metal ion

MARS LTD 09.03.77-GB-009958

(D12) (26.08.81) *BE-864-596 A23j-03 A231-01/04

09.03.78 as ----- (977AS)

Making textured food prod. comprises (1) prepg. a mixt. including nutritious ingredients and an ionic gelling agent, (2) forming a gel in the mixt. by causing the gelling agent to react with a non-toxic divalent or polyvalent metal ion through either direct treatment of discrete pieces of the mixt. in a soln. contg. the ions or inclusion of the ions in the mixt., and (3) freezing the mixt. at a slow rate such that it is not fully frozen until at least 2 hours has elapsed to form ice crystals and generate fibrous, lamellar or striated structure in the mixt.

The prod. is sufficiently tough to withstand factory handling. It is like meat. (5pp)

INFL D13 21476 A/11 = GB 1596-309
Alpha-substd.-3,3-di:methyl-2-norbornane-methanol cpds. - used for enhancing drug and food flavours etc.

INT FLAVORS & FRAGR INC 04.02.77-US-765847 (11.11.76-US-740937)

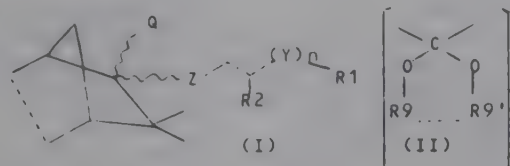
B05 E15 + P15 (B07) (26.08.81) *US4076-853 A61k-07/46 C07c-31/13 C07c-33/05 C07c-35/28 C07c-49/31 C11d-03/50 C11d-09/44

07.11.79 as 046310 (924KB)

Novel substd. norbornane derivs. are of formula (I). In (I) each of the dash lines is a C-C bond or double bond provided that at least one of the dashed lines is a single bond; n is 0 or 1 provided that n is 1 when both dashed lines are single bonds (except that n can be 0 or 1 when R₁ and R₂ are H) and n is 0 when one of the dashed lines is a C:C double bond; R₂ is H or lower alkyl; R₁ is H lower alkyl or lower alkylidene; Y is -(CHR₁₀)- or -(C(R₇)):CH-; Q is H or hydroxyl; Z is gp. (II), -(CH(OCOR₃))- , -(CH₂SO₃H)-, CO-

(CH(OR₄))- or -(C:NOH)- when Q is H; or Z is -CH₂- when Q is OH; R₃ is H or alkyl and R₄ is alkyl; R₇, R₈ and R₁₀ are each H or lower alkyl; R₉ and R₉' are each lower alkyl or together are lower alkylene.

(I) are useful in detergents and soaps, perfumes, colognes, sun screening lotions etc. to impart an intense piney note to the compsns. etc. (131pp)



HAGG D13 76360 A/43 = GB 1596-364
Decaffeinating vegetable materials esp. coffee - using liquid mixt. of e.g. carbon dioxide and solvent

HAG AG 16.06.77-DE-727191

(26.08.81) *BE-868-203 A23f-05/20

31.05.78 as 024865 (006AS)

Caffeine is extracted from plant material, such as coffee, tea, cola leaves, or their aq. extracts, using a non-toxic liq. solvent comprising a mixt. of two components, one being inherently a gas and the other being able to retain the gas in liq. form.

Specifically the gas is CO₂, and the second component comprises a substance contained in the plant material, or a substance regarded as a foodstuff, e.g. acetone, glycerides. (7pp)

CALP- D13 65589 A/37 = GB 1596-443
Stable fermented milk beverage prepn. - comprises dissolving milk protein to low lightness and then forming milk protein particles at higher pH

CALPIS FOOD IND CO 25.02.77-JP-019165

(26.08.81) *DE2808-013 A23c-09/12

13.02.78 as 005649 (937RH)

Fermented milk drink is prepd. by subjecting a fermented milk of dense milky white colour and non-fat milk solids content of 0.5-2.5% to treatment (1) comprising pH adjustment to 3.00-3.45 and heating to temp. above 60 deg.C to dissolve the protein particles and thereby reduce the colour denseness to L-value below 35. Then (2) subjecting milk to pH adjustment to 3.5-3.8 and heating the milk to above 60 deg.C to form a stable dispersion of protein particles to increase the denseness of the colour to an L-value of 40-57 pref. 40-55.

The drink is stable for a long period. (8pp)

UNIL D13 36665 A/21 = GB 1596-505
Premix compsn. contg. minor essential food ingredient - prepd. by spraying ingredient on vehicle

UNILEVER LTD 23.11.76-GB-048808

B05 C03 (26.08.81) *BE-861-026 A23c-21 A23k-01/08 A61k-09/14

21.11.77 as ----- (964BZ)

In the prepn. of a food pre-mix, dry particulated mixt. of edible inert powder and a lactose source, the lactose content of the mixt. being 20-50 wt.%, is intensely agitated and while being agitated is sprayed with an aq. soln. or slurry of active ingredient, the soln. or slurry being applied in amt. of 1-12 wt.% of the dry particulate mixt. The inert powder is a flour, feed meal, organic waste or filler used in animal foodstuffs or a filler.

Pref. the active ingredient is an oral vaccine comprising exdotoxins derived from bacterial strain(s) implicated in gastrointestinal disorders, the endotoxins being free from association with any living bacteria. Specifically the endotoxins are derived from E. coli, Salmonella dublin and/or Salmonella typhimurium. (6pp)

SMIC D13 09703 B/05 #GB 1596-548
Self adjusting breather bag for sealed storage silo - compensating for atmospheric pressure changes and retracting when inactive

SMITH A O HARVESTOR 14.04.77-US-787325 (21.04.78-GB-015823)

P12 + Q45 Q46 (26.08.81) *US4135-443 A01f-25/16

21.04.78 as 015823 (006AS)

Self-adjusting breather system for sealed storage containers, e.g. silos for silage, hay etc., comprises a flexible bag which is assembled with the silo and isolates its interior from atmos. while expanding and contracting with pressure changes.

Top and bottom regions of the bag are joined by flexible and stretchable ties, so that if the bag contracts its bottom region is pulled upwards. Pref. the ties are inside the bag. (9pp)

PROC D13 72688 A/41 = GB 1596-587
Decaffeinated coffee obtd. by solvent extraction - followed by recovery and re-incorporation of flavour and aroma constituents

PROCTER & GAMBLE CO 31.03.77-US-783246

(26.08.81) *BE-865-488 A23f-05/22

30.03.78 as 012458 (963AS)

In prepn. of decaffeinated coffee by forming an aq. extract (I) of roast and ground coffee (II), decaffeinating (I) by contact with a water-immiscible organic solvent (III) for caffeine, sepg. decaffeinated (I) from (III), improvement comprises contacting (III) contg. caffeine with sufficient water to partition caffeine into aq. phase, recovering (III) contg. flavour and aromatic constituents and incorporating into decaffeinated (II).

Pref. caffeine is partitioned from (III) by contacting water and (III) at ratio of 0.5-10:1. Pref. (III) is methylene chloride and ratio is 5-6:1; or (III) is ethyl acetate.

Method provides decaffeinated coffee of improved flavour etc. (6pp)

LYAL/ D13 39403 B/21 = GB 1596-661
Milk powder distributor for baby food - forming compacted plug for addn. of water and including counting device

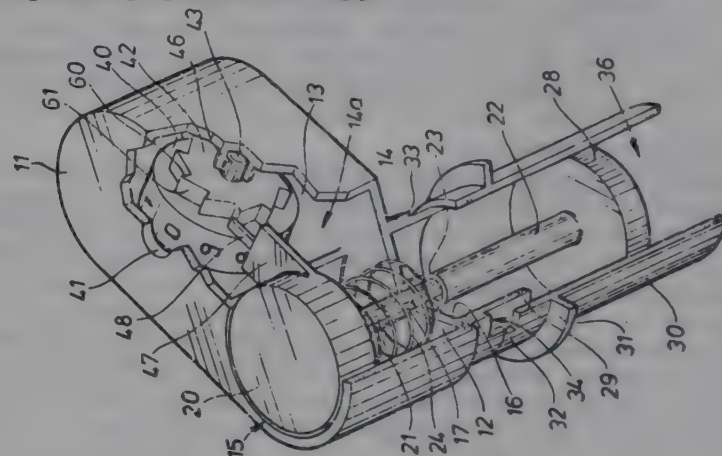
LYALL R 16.08.77-GB-034363

S02 + Q31 (26.08.81) *FR2400-693 G01f-11/10

31.05.77 as ----- (1358AS)

A measured amount of baby-milk powder is dispensed by inserting into the powder the end of a tube (30) housing a plunger (28) which is drawn into a retracted position or is retracted due to pressure in the tube on insertion. The tube is inserted to a depth greater than measuring chamber length to compact powder against the plunger and is then withdrawn with the compacted powder for subsequent dispensing using the plunger.

Insertion depth is pref. at least twice chamber length and is marked by an external flange. The tube may be adjustable in position to vary chamber length or there may be a number of interchangeable tubes of different lengths. There may be a ratchet (42) and numbered wheel (40) operated by the plunger to count dispensing operations. (9pp)



SCON D13 15863 A/09 = GB 1596-7
Sepn. of wheat gluten and wheat starch - comprising a single step, using less water and less power

KONINK SCHOLTEN-HON 24.08.76-GB-035141

(D17) (26.08.81) *BE-857-886 C13l-01 + C07g-07

23.08.77 as ----- (006NS)

Wheat gluten and wheat starch are separated in a hydrocyclone receiving a pumpable mixt. of wheat protein, wheat starch and water. The overflow fraction contains gluten in agglomerated form.

The fraction separated at the tapping point contains the bulk of the starch. Pref. part of the overflow is recycled after extraction of gluten. (5pp)

CONT-★ D13 62811 D/35 ★GB 1596-6
Reducing malodours of carboxylic acids - by intermixing with alkanolamine

CONTEMPORARY PERFUM 19.01.77-GB-002022

E16 P34 (26.08.81) A61l-09 B01d-53/34

18.04.78 as ----- (476HM)

The malodour caused by one or more malodorous 2-10C opt. carboxylic acid contaminants is reduced by intermixing with a contaminated gas phase or washing a contaminated area with a mono-, di or tri-(2-6C alkanol) amine.

The process is chiefly of use in the animal feed industry where animal products such as offal, skin and feathers are processed in bulk. The alkanolamines form stable, substantially non-volatile complexes with the carboxylic acids. (3pp)

ONT-★ D13 62812 D/35 ★GB 1596-753
 Reducing malodours of butyric, valeric and phenylacetic acids - by intermixing or washing with alkanolamine
CONTEMPORARY PERFUM 18.04.78-GB-015107 (19.01.77-GB-002022)
B05 E19 P34 (D15) (26.08.81) A611-09 B01d-53/34
 18.04.78 as ----- Div. ex 1596752 (476HM)
 The malodour caused by one or more of the contaminants butyric acid, valeric acid and phenylacetic acid is reduced by intermixing a contaminated gas phase or washing a contaminated area with a mono-, di- or tri-(2-6C alkanol) amine.
 The malodour of phenylacetic acid is associated with the prodn. of 6-amino-penicillanic acid, an intermediate in the prepn. of semisynthetic penicillins. The malodours of butyric and valeric acids are associated with sewage treatment and with the animal feed industry where animal products such as offal, skin and leathers are processed in bulk. The alkanolamines form stable, substantially non-volatile complexes with the carboxylic acids. (3pp)

BRPE D13 20321 B/11 =GB 1596-758
 Liq. fish protein food prod. for pigs - prepd. using liquefied protein, fish and accelerator additive (SW 8.1.79)
BP NUTRITION UK LTD (BRPE) 09.06.77-GB-024071
C03 (26.08.81) *FR2393-536 + A231-01/32
 27.04.78 as ----- (982AS)
 Prodn. of fish silage comprises mixing fish with preformed fish silage and an additive which can initiate and accelerate the liquefaction process. Pref. the mixing is carried out in a tank using a mechanical mixer, esp. a chopper pump. The fish used is fish waste, fish offal or scrap from the fishing industry. The additive is an organic acid, mineral acid, their salts and/or enzymes. The ratio of additive to the fish feed in the mixt. is 0.5-30(0.1-5.0)wt.%.
 No fine mincing is required and solid minced fish is conveyed. The mixing of a solid mass after addn. of acid is eliminated. The need for heavy duty equipment is avoided. (4pp)

CADB ★ D13 62815 D/35 ★GB 1596-765
 Egg-shaped confectionery article - of hollow or solid form is made in two-part mould with parting line perpendicular to major axis
CADBURY LTD 04.11.77-GB-045900
(26.08.81) A23g-01/21
 21.02.78 as ----- (1044HM)
 Confectionery article has an egg-shaped three-dimensional body formed of an edible confectionery compsn. in a mould having a parting line which is disposed in a plane contg. the minor axis of the body. The body may be solid or of shell form and is made of chocolate and may be at least partially filled with another edible confectionery.
 Used for mfr. of Easter eggs. For a given floor area, egg prodn. can be increased by up to 50% by provision of moulds having parting lines transverse to their major axis. There is less risk of seepage of soft centre confectionery from a hollow shell because of the shorter mould parting line. Since the parting line is circular it is easier to produce a matching seal between the two mould halves. The moulds themselves are mass produced in plastics for very high vol. egg prodn. (4pp)

COXC/ ★ D13 62821 D/35 ★GB 2069-307
 Animal feed compsn. contg. lactose molasses and delactosed whey - with good protein content and feed balance and stable against crystallisation
COXC F 14.02.80-GB-004983
C03 (26.08.81) A23k-01/08
 14.02.80 as 004983 (1248NS)
 Animal feed compsn. comprises a combination lactose molasses and a delactosed whey. Pref. lactose molasses contain about 34% solids, 25% sugar, 2% ash and 1% protein is used, with delactosed whey contg. about 38% solids, 15% sugar, 10% protein, 8% ash and 3% acidity.
 A well balanced feed is obtd., with good protein content, without being too salty for animals to eat it, while it is sufficiently salty to prevent overfeeding with ad lib supply. The compsn. sticks better to silage and other forage feeds than lactose molasses alone, so that wastage through run off is reduced. The compsn. has greater stability against crystn. at low temps., and it does not crystallise on storage. (3pp)

GENO ★ D13 62822 D/35 ★GB 2069-308
 Prepn. of soluble coffee with reduced acid content - by steaming, sweeping with inert gas, then extrn.
GENERAL FOODS CORP 12.02.80-US-120802
(26.08.81) A23f-05/16
 29.01.81 as 002689 (478HM)
 Soluble coffee solids (I) obtd. from an

elongated bed (i.e. length x5 the width) of roasted coffee which has been treated with (super)atmos. steam for more than 10 min. to remove volatile aromas(II) is reduced as follows: (a) the steam flow is stopped; (b) a stream of a non-reactive gas (III) (which will not condense at 0 deg.C) is passed over the steamed bed in the same direction as the steam at above 3m/min. (sufficient to entrain liq. acids in the bed); and (c) the steamed and swept coffee is extracted to afford an aq. extract which is dried. Volatiles removed during the steaming are condensed at 0-20 deg., and combined with the final aq. extract of step (c).

Treated (I) gives a coffee beverage with a relatively high level of flavourful volatiles, and no increase in sour notes. (4pp)

SAGR/ D13 62467 D/35 =GB 2069-309
 Animal feed prodn. from plant residues and waste material - by shock drying, milling to particle size below 2 MM., and sieving out fibre particles larger than 0.35 to 0.75 mm
SAGREDOS A N 13.02.80-DE-005305
C03 (26.08.81) *DE3005-305 A23k-01
 29.01.81 as 002701 (280JB)

In a new process for the prodn. of a feedstuff or feedstuff component from plant residues and waste materials, (A) the plant material is subjected to shock-drying so as to reduce the moisture content as rapidly as possible to 10% or less (pref. ca 5-8%), (B) the dried material is ground to a particle size such that 98-100% has a particle size below 2 mm but at least 8% has a particle size above 0.5 mm, and (C) the ground material is sieved so as to give a fraction with a minimum particle size in the range of 0.35-0.75 mm (depending on the nature of the plant material).

The process utilises otherwise waste materials and gives a readily absorbable prod. suitable for feeding to practically all warm-blooded animals (e.g. hens, calves, sheep, pigs, cattle, goats) which retains practically all of the nutrient value of the raw material but which has markedly reduced raw fibre content and markedly enhanced digestibility. (7pp)

HUNT/ ★ D13 62890 D/35 ★GB 2069-519
 Cooking oil purifying and clarifying appts. - with perforated diaphragm divided tank for boiling water with oil
HUNT C M 04.02.80-GB-003638
(26.08.81) C11b-03
 04.02.80 as 003638 (1358AS)

Apparatus for e.g. oil used for commercial cooking of fish and chips includes a tank to hold water and oil and with a heating element in its lower part. A perforated diaphragm encloses the element and is located above water level and there is an oil outlet a short distance below the diaphragm and above water level, and a bottom drain.

There is pref. a removable top strainer and the diaphragm is removable and conical. The water is boiled to produce a thermosiphon effect and mix with the oil, then the mixture is cooled so that phases separate and impurities precipitate from the oil to form a layer between oil and water, the oil being drawn off above this layer. (4pp)

DALL- ★ D13 D/35 ★IT 1051-106
 Tomato pulp prodn. appts.
DALL ARGINE E GHIRE 17.10.75-IT-046921
(21.04.81) A23n

BUSA/ ★ D13 D/35 ★IT 1051-237
 Agent eliminating turbidity of fruit and vegetable juices and drinks
BUSA G 16.09.70-IT-042018
(21.04.81) A23l

MARS ★ D13 63129 D/35 ★J5 6085-243
 Reclaiming waste frying oil - by adding organic solvent (mixt.) cooling and sepg. into polymerised and non-polymerised fractions
MARUI KOGYO KK 14.12.79-JP-161665
G02 (11.07.81) A23d-05
 14.12.79 as 161665 (5AS)

Process comprises (a) adding 1-10 fold amt. of organic solvent or organic solvent mixt. to waste frying oil; (b) cooling the mixt. to (-10) - (-40) deg.C pref. to (-30) - (-40) deg.C; and (c) sepg. it into unpolymerised part and polymerised fraction.

Crystallised unpolymerised part can be reused as frying oil and the polymerised part can be used as material for oily paints, epoxidised oil etc. Pref. organic solvent is acetone or its mixt. with other organic solvents such as hexane, (m)ethanol, MEK, ethylketone etc. can be used. (4pp)

MEIP ★ D13 63130 D/35 ★ J5 6085-250
Protein material prodn. - by first adding neutral or alkaline endo-peptidase type protease in sodium or potassium caseinate
MEIJI MILK PRODS KK(NISP) 12.12.79-JP-160294
(11.07.81) A23j-03/02
 12.12.79 as 160294 (5AS)
 Process comprises (a) adding neutral or alkaline endo-peptidase-type protease in sodium or potassium caseinate obtd. by solubilising acidic casein with alkali; (b) decomposing enzymatically such that only the viscosity of the soln. is decreased greatly without any large decrease in the solubility of casein while suppressing the decompsn. degree so that bitterness and decompsn. odour are not formed; (c) heat-inactivating the enzyme; (d) adding calcium salt and phosphate; (e) recovering fine insolubilised casein; and opt. (f) spray-drying.
 Protein material which neither changes the properties of foods nor gives specific odour to foods, can be prepd. from milk casein. Thus obtd. protein material is free of bitter taste and specific odour and it shows a solubility of below 20% in pH range between slightly acidic and slightly alkaline. (4pp)

MEIP ★ D13 63131 D/35 ★ J5 6085-251
Proteinaceous material mfr. - includes solubilising milk casein and treating with neutral or acidic protease
MEIJI MILK PRODS KK(NISP) 12.12.79-JP-160295
(11.07.81) A23j-03/02
 12.12.79 as 160295 (5WB)
 Method comprises (a) solubilising milk casein, (b) treating it with the neutral or acidic protease which coagulates casein in the presence of calcium ion and (c) sepg. thus formed insoluble decomposed product of casein. Pref. the starting material is acidic casein, rennet casein, sodium caseinate, potassium caseinate, etc. In the case of acidic casein it is pre-solubilised with alkali and deodorised with active carbon, etc. The enzyme which coagulates casein in the presence of calcium ion is pref. papain, rennet, ficin, etc.
 Protein material which neither changes the properties of foods nor imparts a specific odour to foods, can thus be prepared from milk casein. The obtd. protein material is free from bitter taste and specific odour and is solid under neutral conditions. It is esp. used for enriching foods prepd. from cereals. (5pp)

GENO ★ D13 D/35 ★ J5 6085-255
Prod. of dog food having improved taste
GENERAL FOODS CORP 15.11.79-US-091225
C03 (11.07.81)

KIMI- ★ D13 63132 D/35 ★ J5 6085-269
Seaweed and roe prepn. - includes spreading fucoidin soln. on brown algae and immersing in fresh water
KIMITSU KAGAKU KENK 11.12.79-JP-160940
(11.07.81) A23l-01/33
 11.12.79 as 160940 (5WB)
 Method involves (1) spreading fucoidin soln. on brown algae e.g. sea weed, kajime, etc. or dissolving out fucoidin in brown algae by notching shallow scores on brown algae and immersing it in fresh water, the solution contg. divalent metal salt except Mg and Hg salt or succinic acid soln.; (2) arranging fish roe on the thus treated brown algae; opt (3) drying it or semi-drying it. (4) immersing it in a soln. contg. trivalent metal salt or spreading the soln. on it; and opt. drying it.
 Fucoidin is a polysaccharide composed of fucose. In the (1) divalent metal salt or succinic acid is used to promote dissolving out of fucoidin and suppressing the dissolving out of arginate and the swelling of algal body. The trivalent metal salt is ferric chloride, aluminium chloride, etc. imparts (4) proper water resistance to the product.
 The obtd. sea-weed with roe is similar to that naturally occurring in texture, taste and flavour. (3pp)

TSUK ★ D13 63196 D/35 ★ J5 6086-108
Aq. thiabendazole dispersion - contg. sucrose fatty acid ester, shellac and sodium citrate or polyphosphate
TSUKIHOSHI KK 15.12.79-JP-163367
E13 (13.07.81) A01n-25/04 A01n-43/78
 15.12.79 as 163367 (6AS)
 Aq. thiabendazole dispersion contains (a) thiabendazole; (b) sucrose fatty acid ester; and (c) shellac as essential ingredients, and (d) sodium citrate or polyphosphate as supplementary ingredients. Dispersion is used as a preservative for citrus fruits and bananas and has good spreading, wetting and adhesive properties.
 Pres. of citrus fruits with aq. thiabendazole dispersion. Sodium citrate

approx. 1500 ppm. (4pp)

ICHI- ★ D13 63552 D/35 ★ J8 1032-8
Dried mushroom prodn. - by slicing, low temp. drying, freezing, immersing in tocopherol-contg. gelatin soln, water removal and drying (J5 27.1.79)
ICHIBAN SHOKUHIN KK 00.00.78-JP-000772
(30.07.81) A23b-07/02
 25.08.75 as 000772 78 (22HM)
 Edible mushroom is sliced vertically, dried at low temp. or under freezing, and immersed in a gelatin soln. contg. 20-40 wt% tocopherol, followed by removal of water and drying. The resulting dried prod. has good flavour. (J54011268) (3pp)

AJIN ★ D13 63553 D/35 ★ J8 1032-8
Soybean protein extn. from soln. or suspension - by isoelectric pptn. and re-suspension in alkali contg. alcohol which neutralised to recover curd (J5 7.4.80)
AJINOMOTO KK 02.10.78-JP-120345
(30.07.81) A23j-01/14
 02.10.78 as 120345 (22BZ)
 Soybean protein soln. or suspension is heated and subjected to isoelectric precipitation to give protein precipitates. The precipitates are suspended in alkali-contg. alcohol, neutralised at pH 5.5 to 8.5, and then thus resulting neutralised curd is recovered. The protein can be obtained at low cost. (J5504835) (6pp)

FUKO D13 84021 X/45 = J8 1032-8
Foamable oil and fat compsns. - contg. milk solids and emulsifier by heat
FUJI OIL KK 14.03.75-JP-031366
(30.07.81) *J51106-750 + A23l-01/19
 14.03.75 as 031366 (AS)
 Foamable oil and fat compsns. are prepd. from 28-60 w/w% of oil and fat, 72.40 w/w% of aqueous solution containing milk solids such as skim milk etc. and emulsifier, which is characterised by applying 0.05-2.5 w/w% of lecithin and 0.1-2.5 w/w% monoglyceride of fatty acid together as the emulsifier, and pasteurizing the compositions after the emulsification and heating. Storage stable products are obtd. which can satisfy the requirements for taste and flavour, plasticising resistance and mould keeping property. (J51106750) (6pp)

NISS- D13 11066 A/06 = J8 1032-8
Highly preservable whipped cream prepn. - avoid agglomeration of fat globules which makes the emulsion viscous or solid
NISSE KK 14.06.76-JP-070036
(30.07.81) *J52154-560 A23l-01/19
 14.06.76 as 070036 (5KB)
 The method comprises adding wheat gluten powder, Avicel (RTM: a mixt. of fine crystalline cellulose and CMC) and sorbitan fatty acid ester to a cream having a fat content of 24-30%, and pure vegetable hardened oil; and pre-emulsifying, sterilising, homogenising and ageing at low temp. The whipped cream does not suffer from the bote phenomenon, even after preserving at 35 deg.C for a month.
 The mixt. comprises 0.05-0.4% Avicel RC, 8-16% wheat gluten powder, and 0.1-0.2% sorbitan fatty acid ester. After emulsification at 80 deg.C, sterilisation at 140 deg.C for more than 4 secs. and homogenisation at a shearing stress of 15 kg/sq.cm, the ageing is practised at more than 100 days. (J52154560) (4pp)

AJIN ★ D13 63554 D/35 ★ J8 1032-8
Sweetness of citrus fruit increased - by spraying leaf or fruit with soln. of amino acids during growing period (J4 2.9.74)
AJINOMOTO KK 25.00.73-JP-003098
E16 (31.07.81) A01n-37/44
 25.12.72 as 003098 73 (22BZ)
 To the surface of leaf or surface of fruit of citrus fruits is applied a soln. contg. arginine, proline, gamma-amino butyric acid, ornithine, glycine, valine, leucine, isoleucine, glutamic acid, asparagic acid, lysine, or hydroxy proline, during the growing period. The sweetness of the citrus fruits is improved. (J49091829) (2pp)

SHUD/ ★ D13 63556 D/35 ★ J8 1032-8
Egg-contg. foamed dried foodstuff prodn. - by mixing with starch, protein and flavouring agent, blending, moulding and heating with HF current (J4 9.8.73)
SHUDO A 15.11.71-JP-090643
(31.07.81) A23b-05/02

protein and flavouring agent, followed by blending. The resultant is heated at lower than 60 deg. C, followed by moulding, and heating by high frequency current to foam and dry the prod. (J48056859) (6pp)

NEST D13 29091 A/16 = J8 1033-056
Stable, aq. soya suspensions prodn. - by grinding the beans, destroying the anti trypsin factor by heating and milling to specified particle size

SOC PROD NESTLE SA 08.10.76-CH-012793
(31.07.81) *DE2745-221 A23c-11/10 A231-01/20

07.10.77 as 120846 (922AT)

Method comprises comminuting the beans in water at 90-100 deg.C until a particle suspension is obtd. in which the particles are 100-500 microns or less. The dispersion is then steam-heated to 120-160 deg.C and milled until a suspension is formed, the protein and fat corpuscles of which have a particle size of 2-10 microns and the cell wall residues of which are 40-300 microns or less.

The prod. is used, together with the ultrafiltration retentate of cow's milk/whey, in the prodn. of a cow's milk substitute. The bitterness (anti-trypsin factor) is removed without excessive protein denaturation. Almost no sedimentation takes place and the product's taste and consistency are acceptable without the need for additives. (J53047553) (7pp)

FUJI-★ D13 63557 D/35 ★ J8 1033-057
Souring cream after sterilisation and homogenisation - by the addn. of kefir grain followed by fermentation and filtration (J53.7.75)

FUJIYAKK 27.11.73-JP-132162
(31.07.81) A23c-13/16

27.11.73 as 132162 (22AT)

Cream contg. 40 to 50% milk fat is sterilised and homogenised, and 5 to 10% kefir grain is added, followed by fermentation at 10deg. C for 40 to 48 hrs. The prod. is filtered to remove kefir grain and the resultant is aged at 6-10 deg. C for 24 hrs. (J50082257) (2pp)

NISS ★ D13 63558 D/35 ★ J8 1033-063
Feedstuff for cultivation of fish - contains dried seaweed powder to inhibit degradation of alpha-starch binder (J4 6.11.74)

NISSHIN FLOUR MILL KK 08.03.73-JP-026551
C03 (31.07.81) A23k-01/18

08.03.73 as 026551 (22KB)

In feedstuffs for cultivation of fish using alpha-starch as binding agent, 0.5-4.0% of dried powder of seaweed such as Konbu, Wakame, etc. having particle size of less than 200 microns is added so degradation of alpha-starch can be inhibited. (J49115893) (6pp)

KINJ- D13 53259 B/29 = J8 1033-066
Treating foodstuff prepd. from soybean to remove soybean odour - by addn. of spirit oil contg. isothiocyanic acid
KINJIRUSHI WASABI 10.11.77-JP-135046
(31.07.81) *J54070-455 A231-01/20

10.11.77 as 135046 (22AT)

Processed foodstuff prepd. from soybean is mixed with spirit oil contg. isothiocyanic acid ester or a substance contg. the spirit oil in an amt. of 0.5-70 mg spirit oil per 100 g of the foodstuff. The resulting foodstuff is free of soybean odour.

The processed foodstuff includes various kinds of paste foodstuffs (e.g. Kamaboko, Chikuwa, Hanpen, etc.) prepd. from soybean, defatted soybean, etc. The isothiocyanic acid ester has formula RNCS, where R is typically allyl. The material contg. this ester includes Eutrema wasabi, mustard, etc. The spirit oil contg. the isothiocyanic acid ester of material contg. the spirit oil may be added to the foodstuff during or after its prepn.

In an example, defatted soybean powder is mixed with Eutrema wasabi powder in an amt. of 0.05-12 wt.% together with water, followed by blending and kneading, and the prod. is heated at 70-80 deg.C for 30 mins. The prod. is free from soybean odour, and can be used for prepn. of various kinds of foodstuffs. (J54070455) (3pp)

AJIN D13 80925 A/45 = J8 1033-068
Prepn. of dry bean curd used e.g. in instant soups - by kneading mixt. of vegetable protein or animal albumin protein, oil and fat, water and a quality improver, freezing and drying
AJINOMOTO KK 11.03.77-JP-026686
(31.07.81) *J53113-047 A231-01/20

11.03.77 as 026686 (5RP)

Method comprises kneading the mixt. of 10 pts.wt. (as pure protein) of vegetable protein or animal albumin protein, 2-40 pt.wt. of oil and fat, 30-140 pts.wt. of water and 0.0001-1 pts.wt. of at least 1 of the cpds. selected from ascorbic acid, erthorbic acid, and their

salts; freezing; and drying.

The dry protein food (called dry bean curd) is highly preserved and can be restored to the food showing the appearance, taste and flavour and texture like bean curd, with water. The restored bean curd-like food can be served similarly as bean curd and the dry protein food can be partic. applied as the material for instant soups. By kneading the mixt. of vegetable protein, oil and fat and water, freezing and drying, a dry easily restorable bean curd is obtd. when a slight amt. of the quality-improving agent is added. (J53113047) (4pp)

YOKO- D13 04457 C/03 = J8 1033-366
Fine powdery coated L-ascorbic acid (salt) prepn. - by adding to organic solvent soln. of hydrophilic wax, oil, fat etc. which is pptd. out onto the L-ascorbic acid (salt)

YOKOHAMA YUSHI KOGY 23.05.78-JP-060618

C02 E13 (03.08.81) *J54154-514 A61k-09/60 + A61k-31/37
23.05.78 as 060618 (5AS)

The method comprises (a) adding at least 1 of hydrophilic wax, oil and fat, fatty acid, natural resin, etc., of which at least 1 has crystallising property, to an organic solvent, in which L-ascorbic acid or its salt shows low solubility and the hydrophilic substance shows high solubility, so that its concentration is 5-50 w/w%, (b) dissolving the hydrophilic substance with heating, (c) adding L-ascorbic acid or its salt to the solution. (d) keeping the suspension for 0.5-24 hrs. at the optimum crystallising temperature of the hydrophilic substance for crystallising out the hydrophilic substance including L-ascorbic acid or its salt as the nucleus and (e) removing the organic solvent. The fine powder is so prepared that L-ascorbic acid or its salt is included 1-80 w/w% in the fine powder. As organic solvent hydrocarbon, ketone, halohydrocarbon, etc. having b.pt. less than 100 deg.C can be used.

Fine powdery coated L-ascorbic acid or its salt, from which L-ascorbic acid or its salt is hardly exposed to air, can be easily prepared without crushing. It is stable and resistant to humidity and can be used as an additive for foods and feeds. (J54154514) (5pp)

HAGG D13 76360 A/43 = J8 1033-395
Decaffeinating vegetable materials esp. coffee - using liquid mixt. of e.g. carbon dioxide and solvent

HAG AG 16.06.77-DE-727191

(03.08.81) *BE-868-203 A23f-05/20 B01d-11 C07d-473/12
14.06.78 as 072034 (597NS)

The selective extraction of caffeine from vegetable materials using a liq. solvent comprises using a two-component mixt. as solvent. The first is, on its own, gaseous under the conditions used and the second comprises a cpd. having physical characteristics such that the mixt. of the two cpds. is liq. at the temp. used.

First components are CO₂, N₂O, SF₆, Xe, CF₄, methane, ethane, ethylene, acetylene, cyclopropane but pref. CO₂ or mixts. contg. CO₂. The second component is pref. substances contained in the vegetable material or waste food prods., e.g. coffee oil.

The process is esp. used for decaffeinated coffee and tea. The process is an improvement on previous processes using carbon dioxide above the critical point or liq. CO₂ which required long extractions with excessive energy consumption, requiring a considerable amt. of appts. rendering the process uneconomic. (J54036299) (7pp)

NIUS D13 01026 C/01 = J8 1033-401
Low mol. wt. chitosan prodn. - by treating chitosan, obtd. by deacetylating natural chitin, with hydrogen peroxide soln. at pH 6-12

NIPPON SUISAN KAISHA 15.05.78-JP-057441

A11 B04 (04.08.81) *J54148-890 C08b-37/08
15.05.78 as 057441 (936AS)

Low mole.wt. chitosan is produced by treating chitosan obtd. by deacetylating natural chitin with 0.007-0.35% of H₂O₂ soln. adjusted to pH 6-12. Chitosan having selected mol.wt. is obtd. without side reactions such as colouring. The glucoside bond of high molecular chitosan is cleaved selectively without any effect on the amino gp. thereof. The desired mol.wt. is obtd. by controlling the reaction time.

Specifically, chitosan is dispersed in water and adjusted to pH 6-12, pref. 9-11.5, and heated to desired temp. with stirring. The H₂O₂ soln. is added to the dispersion in one or several portions. The reaction time is 2-5 hrs. The reaction temp. is 20-90 (pref. 30-70) deg.C. After the reaction, the low mol.wt. chitosan is water-washed, dried and pulverised.

As the H₂O₂ soln. used is cheap and safe, the prod. can be used for intermediate treatment of foods or for cosmetics and medicines. (J54148890) (5pp)

ANON ★ D13 63572 D/35 ★RD-208-003
Protected ascorbic acid prepn. - by heating with fat and spray chilling

ANONYMOUS 20.07.81-RD-208003
B03 E13 (10.08.81) C07d-00/*
20.07.81 as ----- (AT)

The protected ascorbic acid (I) comprises discrete particles of ascorbic acid having a particle size of about 4 microns coated with a hardened fat having m.pt. of about 80 deg.C. Prepn of (I) comprises heating a mixt. of discrete particles of ascorbic acid having a particle size of about 4 microns and a hardened fat having a m.pt. of about 80 deg.C to a temp. above the m.pt. and subsequently spray-chilling.

The discrete particles of ascorbic acid having a particle size of about 4 microns can be readily prepd. from commercially available ascorbic acid using a conventional grinding appts. e.g. a ball mill. The fat is pref. hydrogenated castor oil, although any other hardened fat having a m.pt of about 80 deg.C and being acceptable to the food industry can also be used.

(I) is esp. suitable for use in a wet high temp. environment; e.g. when foodstuffs which are to be fortified with ascorbic acid require processing at a temp. of about 65 deg.C and in the presence of water.

ANON ★ D13 63585 D/35 ★RD-208-026
Protein hydrolysates sepn. from sludge contg. hydrolysis mixts. - using ultrafiltration, used for sepn. of animal, vegetable and single cell protein hydrolysates

ANONYMOUS 20.07.81-RD-208026
(10.08.81) A231-00/*
20.07.81 as ----- (513HM)

In the prior art GB2018121 (main claim) a food additive is prepd. from blood by sepn. of a specified sludge from a specified supernatant at a pH of above 4.0. Claim 18 of the same prior art claims sepn. by means of a centrifuge.

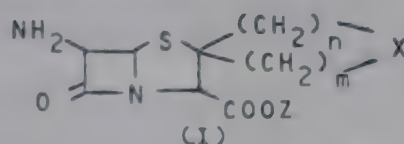
It has now been found that sepn. by ultrafiltration gives very high yields of hydrolysate and also eliminates any contaminating microorganisms present in the starting material. The system can also be used to separate other protein hydrolysates than the blood cell hydrolysates indicated in GB2018121 from the accompanying sludge, esp. those originating from seeds, beans or nuts such as soya beans, rape seed, cotton seed, sunflower seed, peas, peanuts, cereals (maize, wheat, barley, oats, rye, rice), potatoes and leaves including alfalfa. Animal protein hydrolysates can also be separated, including those from whole blood, milk, whey, casein and meat, and single cell protein hydrolysates.

UNIO D13 53859 A/30 = SU-786-902
6-Amino-2-spiro-heterocyclyl-penam carboxylic acids - intermediates for 6-acylamino cpds. useful as broad spectrum antibacterials and animal feed additives

UCB SA 18.01.77-GB-001905
B02 C02 (07.12.80) *DE2801-849 A61k-31/43 C07d-499/82
18.01.78 as 566653 (GW)

Penam derivs. of formula (I) and their alkali metal salts and their esters are new: In (I) Z is H, alkali metal ions or a carboxy protecting gps., esp. benzyl. X is S or O. n + m are each 1 or 2, esp. 2.

They are prepd. by an 8-stage synthesis from 2-formyl-2-phthalimidotert. butyl acetate and alpha-NH2-mercapto- (oxa or thia)-cycloalkane-acetic acids. Esp. useful against gram negative species which elaborate beta-lactamase. They are useful therapeutically in human and veterinary medicine and as animal feed additives. (I) have some antibacterial activity themselves. Bul. 45/7.12.80 (8pp)



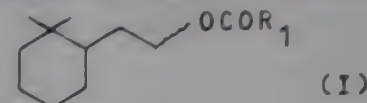
INFL D13 03751 Y/02 = SU-786-013
Fragrance modifying compsns. - contg. 2,6,6-trimethyl 1-cyclohexen 1-yl acetaldehyde enol esters

INT FLAVORS & FRAGR INC 07.10.75-US-620355
B05 E15 + P15 (07.12.80) *US4000-090 C11b-09
22.10.76 as 347753 (GW)

Fragrance modifying compsn. comprises a 2,6,6-trimethyl-1-cyclohexen-1-yl acetaldehyde enol ester of formula (I), together with an auxiliary ingredient (where R1 is 1-5C alkyl).

Cpds. (I) are added to foodstuffs, chewing gum, toothpaste, medicinal products, perfumes, cosmetics, soaps, detergents, etc. to modify and/or intensify the flavours and aromas.

definite sweet, floral, fruity fragrance. Bul. 45/7.12.80. (3pp)



UGLI = ★ D13 63662 D/35 ★SU-786-902
Mixt. for cheese spread prodn. - contg. cooking fat, skimmed milk and powder, vegetable oil emulsion, sodium citrate and phosphate, carotene, and phosphatide(s)

UGLICH BUTTER CHEES 27.11.78-SU-689167
(15.12.80) A23c-19/02
27.11.78 as 689167 (70VE)

Cheese spread is prepd. by pasteurising skimmed milk; cooling; emulsifying the fat in skimmed milk; introducing a bacterial leaven and rennet; curdling the mixt.; working the curd, forming and pressing.

This method is improved by introducing into the skimmed milk, before the pasteurisation, an emulsion obtd. by mixing a liquid vegetable fat with a hydrolysed component in a weight ratio of 1/2-1/8-9/, heating to 58-60 deg.C, introducing 1-1.5% of dried skimmed milk, 0.05-10.1% of trisodium citrate, 0.15-0.20% of Na2HPO4, 0.05-0.1% of phosphatides, and 0.1-0.15% of carotene. This mixt. is then diluted with equal quantity of skimmed milk, and homogenised. Before the curd-working, the cheddarisation process is performed.

By this method the biological value of cheese is increased and its consistency is improved. Bul. 46/15.12.80. (3pp)

CANN = ★ D13 63664 D/35 ★SU-786-902
Horse-radish sauce prodn. - from horse-radish, fat, sour cream, pepper, salt, vinegar, flour and broth

CANNING IND RES INS 08.02.79-SU-724933
(25.12.80) A231-01/22
08.02.79 as 724933 (70VE)

Horse-radish sauce is produced by comminuting horse-radish; mixing it with a fat, sour cream, pepper, salt and vinegar; passivating and thermally treating. This method is improved by adding broth and flour; carrying out the passivation in two stages, first by evaporating 10-14% of the mass before the addition of the fat, and in the second stage treating in the fat for 1-2 min. at 140-150 deg.C; the thermal treatment is carried out at 80-90 deg.C. The flour and the broth are introduced before the thermal treatment, and the horse-radish and vinegar afterwards.

By this method, the sauce acquires uniform pasty consistency, good taste and prolonged storage stability, (months). Bul. 46/15.12.80. (2pp)

BEIG/ ★ D13 63964 D/35 ★US 4282-8
Stable, dry packaged, sterile nutrient compsn. - useful for reconstitution to give pyrogen free intravenous solns.

BEIGLER M A 20.07.78-US-926399
B05 C03 P31 P33 P34 (D22) (11.08.81) A61b-19 A61j-01 A61m-02
20.07.78 as 926399 (1248BZ)

Prepn. of a stable dry packaged, sterile, pyrogen-free nutrient compsn. involves providing a solid nutrient compsn. contg. 0-30% moisture (not over 15% when the nutrient is an amino acid, carbohydrate and not over 10% when it is a vitamin). The solid can be readily dissolved in water at 185 deg.F to form an aq. soln. that will pass a 5 micron filter by gravity at over 1l/hr. and a 0.1 micron filter at over 1l/2 hrs. The compsn. is sealed in a moisture-proof, micro-organism impermeable container, the sealed compsn. is subjected to a sterilising dose of an ionising ray.

The compsns. are intended for parenteral, esp. intravenous admin. to mammals, including man, after reconstitution with sterile water. The nutrients include food additives, e.g. sugars, minerals, vitamins, amino acid, protein hydrolysates, oligopeptides, keto and hydroxy analogues of amino acids, starches, gelatins etc. Therapeutic agents such as antibiotics, anticoagulants, antiarrhythmics, anticancer agents etc. may be included with the nutrient compsn. (10pp)

EGMO- D13 13326 C/08 = US 4282-8
Revolving heater drum - with stationary coaxial shell inside and burners for tangential flames in annulus

ETAB GEN MEC OUEST 26.07.78-FR-022097
Q78 + Q74 Q77 (11.08.81) *DE2928-131 + F27b-06/08
17.07.79 as 058277 (1358WB)

A heater, partic. for baking crepes, includes a rotatable drum with open ends and holding a burner with a nozzle directing flame perpendicularly of a drum diametral plane so that hot gas is circulated adjacent to the drum wall. An air inlet provides oxygen for the burner and a draft.

The nozzle is located in the outer space while the air inlet is within the central space. The drum is pref. of metal and the divider is coaxial with it and of the same shape, with its ends extending beyond the drum ends so that hot gases generated in the annular space are directed away from air entering the divider towards the air inlet. (5pp)

HER- D13 57316 C/33 = US 4283-392
Infusion soln. for parenteral feeding - contains minerals, amino acid(s) and kinin(s) to inhibit nitrogen loss

THERAGES 23.01.79-CH-000644
B05 (11.08.81) *EP--13-962 A61k-37
2.01.80 as 114241 (963HM)

Infusion soln. for low-caloric parenteral nutrition comprises 10-100 (50-100) g of essential and non-essential amino acids per l of soln., 50-10,000 (200-1000) microg of Bradykinin and/or kallidin per l and mineral salts. The pref. kinin is Bradykinin and this is used at 100-5000 microg/l.

Soln. is used to protect the depot proteins in a patient, esp. one during a state of stress e.g. after surgery or at the time of an infection. (4pp)

ARB D13 27368 C/16 = US 4283-400
Medicated animal feed based on liver meal - to mask taste of veterinary medicines for e.g. cats and dogs

BAYER AG 25.09.78-DE-841668
B05 C03 (11.08.81) *DE2841-668 + A61k-31/43
0.09.79 as 073990 (963HM)

Medicated animal feed comprises 0.1-20 pts.wt. of pharmaceuticals selected from anthelmintics, praziquantel, tetramisole, febantel, teramisole, niclosamide, piperazine salts, chloramphenicol, tetracycline, penicillin derivs., ampicillin, cloxacillin, and 6-chloro-6-dehydro-17 alpha-acetoxypregesterone; 1-20 pts.wt. of a binder selected from starch, polyvinylpyrrolidone, gelatin, sodium alginate, and cellulose derivs.; 50-99 pts.wt. of liver meal (I) as formulation auxiliary and 0.04-5 pts.wt. of other auxiliaries. (I) is pref. defatted liver meal.

The presence of (I) gives pleasant taste to compsns. enabling voluntary oral uptake of pharmaceuticals e.g. by dogs, cats etc. (4pp)

USGY ★ D13 64099 D/35 ★ US 4283-423
Prod. of nutrient compsn. contg. urea and calcium sulphate - useful as free flowing supplements for fertilisers and animal feeds

US GYPSUM CO 20.08.79-US-067976
C03 (C04) (11.08.81) A23k-01
20.08.79 as 067976 (1248AT)

Prod. of a nutrient compsn. contg. urea in granular free-flowing form comprises (a) dry blending a mixt. of particles passing 100 USS mesh and comprising at least 10% urea and at least 10% CaSO₄ as hemihydrate or anhydrite, (b) compacting the mixt. into a sheet at 160-225 deg. F and (c) crushing the sheet to granules.

The compsns. are useful as animal feed supplements and fertiliser supplements. The granules are homogeneous mixts. of the two materials and are not sufficiently hygroscopic to prevent them being free-flowing and not subject excessive caking or moisture pick-up on storage. (8pp)

GENO ★ D13 64101 D/35 ★ US 4283-425
Low fat potato crisp prodn. - by coating potato slices with globular protein and microwave cooking

GENERAL FOODS CORP 19.05.80-US-151212
(11.08.81) A231-01/21
19.05.80 as 151212 (955AS)

Low fat potato crisps of added fat content up to 10% are prep. by coating raw potato slices with globular protein, applying a layer of edible oil on top of the protein coating, and microwave heating the slices for suff. time to give a prod. having the flavour crispness and colour of conventional deep fried crisps.

The prod. has a lower calorific value than conventional crisps. Potato varieties not normally suitable for crisps may be used. (5pp)

KALS- ★ D13 64102 D/35 ★ US 4283-429
Homogeneous stable liq. seasoning and colouring compsn. - contg. hydroxylated lecithin and tartrate ester(s) or partial glyceride(s)

KALSEC INC 28.02.80-US-125423
(11.08.81) A231-01/22
28.02.80 as 125423 (955AT)

A homogeneous liq. condiment compsn. for flavouring or colouring foods or beverages contains (1) hydroxylated lecithin, (2) tartaric acid esters of mono and diglycerides and (3) one or more edible flavourings or colourings, the ratio by wt. of (1) plus

The compsn. may be dispersed in water or oil phases, and can provide all the colouring and flavouring ingredients reqd. in a food in a single compsn. The compsn. is stable indefinitely to sepn., oxidn. etc. and has no functional effect on food except the dispersion of the colouring and flavourings. (9pp)

MITC/ ★ D13 64105 D/35 ★ US 4283-432
Beverage powders made from dahlia tubers - by extn. of solubles, concentration and controlled roasting to develop flavour

MITCHELL W A 13.08.80-US-177934 (12.12.78-US-973856)
(11.08.81) A23b-04/04
13.08.80 as 177934 (955KB)

Dahlia flavour powders are prep. by (a) grinding scrubbed dahlia tubers to particle size 10 mesh USS sieve, (b) soluble solids in a concn. of 15-25 wt.% by filtration and pressing from the insol. solids; (c) concentrating the soluble solids at 50-110 deg.C to a thick syrup or solid of solids content 70-99%, (d) heating the residue of (c) to 102-225 deg.C for 3 mins to 2 hrs. and (e) grinding the prod. to particle size 10-100 mesh.

Also claimed are beverage powders prep. by blending 1-99% of the dahlia powder with tea, coffee or cocoa powders, or 3-95% of the dahlia powder or the above mixts. with tea, coffee or cocoa with a sugar which is sucrose, dextrose, lactose, fructose or cereal hydrolysate of D.E. 5-50.

The powders give excellent pleasant tasting beverages in milk or water. (4pp)

FIRM D13 24786 C/14 = US 4283-433
Alpha, beta-unsatd. aldehyde flavouring agents - comprising di:alkyl-substd. alk-2-en-1-al cpds.

FIRMENICH SA 14.09.78-CH-009632
C03 E17 (11.08.81) *NL7906-797 A231-01/22
07.09.79 as 073446 (963HM)

Method for imparting, improving or modifying the organoleptic properties of foodstuffs, animal feeds and beverages comprises adding 0.01-2 ppm. of at least 1 alpha, beta-unsatd. aldehyde selected from 2,6-dimethyl-oct-2-en-1-al; 2,5-dimethyl-oct-2-en-1-al; 2,5-dimethyl-hept-2-en-1-al, and 2-ethyl-7-methyl-oct-2-en-1-al.

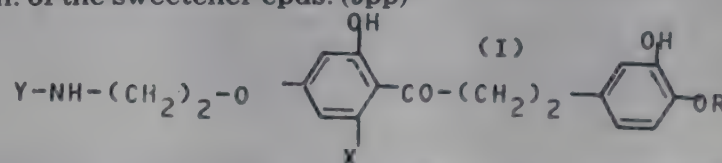
Modified foodstuffs etc. are also claimed, esp. where the cpds. are used to impart, improve or modify the meaty and fatty notes. In particular, the cpds. are used to modify the oily-green gustative note of foodstuff subjected to a frying process. (4pp)

DUBO/ ★ D13 64106 D/35 ★ US 4283-434
Poly:alkoxy-4-amino-ethoxy-4'-alkoxy-di:hydro chalcone derivs. - useful as potent sweeteners for foods, beverages, medicaments etc.

DUBOIS G E 14.04.80-US-140064
B05 E14 (11.08.81) A231-01/23
14.04.80 as 140064 (1248AT)

Polyalkoxy-4-(Aminoethoxy)-4'-alkoxydihydrochalcones and derivs. of formula (I) are new. R is 113C alkyl; X is H or OH; Y is H or SO₃M; and M is a cation.

Cpds. (I; Y is SO₃M) are sweeteners for use in foods, beverages, medicaments etc. They are used at 0.01-0.001 of the amt. of sucrose required to give a desired sweetness level, esp. at 0.2-0.005% in foods etc. Cpds. (I; Y is H) are intermediates in the prepn. of the sweetener cpds. (9pp)



UNIL D13 68612 T/43 = US 4283-436
Hard fats - consisting of middle fraction of palm oil with distearyl-oleylglycerol or palmityl-oleylstearoyl glycerol

LEVER BROS CO 02.04.71-GB-008503 (02.04.71-GB-008501)
E17 (11.08.81) *NL7204-288 A23d-05 + A23g-01

16.12.76 as 751309 (+2.4.71-GB-008501) (+31.3.72; 21.11.73-US-240265; 417865) (393AS)

Hard fat replacer consists of palm mid-fraction and (a) at least 85% pure 1,3-distearyl-2-oleyl glycerol, (b) at least 85% pure 1-palmityl-2-oleyl-3-stearyl glycerol, or (c) a mixt. of (a) and (b) to increase the flexibility of the palm mid-fraction.

Pref. the hard fat replacer consists of 60-75wt.% palm mid-fraction and 40-25wt.% (a). Using the hard fat replacer hardened milk chocolate and plain chocolate suitable for tropical use, can be prep. as well as excellent normal plain and milk chocolates. (15pp)

FRIY ★ D13 64108 D/35 ★US 4283-437
Preventing light-struck in farinaceous foods fried in cotton seed oil - by removal of cyclopropenoid fatty acids from the oil

FRITO-LAY INC 02.08.79-US-063090

(11.08.81) A231-01/21

02.08.79 as 063090 (478AT)

The development of light-induced, undesirable organoleptic characteristics in oil-absorbent farinaceous foods (I) fried in cottonseed oil is prevented by using a non-hydrogenated oil in which the cyclopropenoid fatty acid (II) content is not more than 0.1%.

The cottonseed oil pref. has (II) content not more than 0.05 wt.%, and also has the chlorophyll content less than 0.4 ppm pref. less than 0.3 ppm. (II) (and chlorophyll) may be reduced to the required level by treatment of commercially available, refined, bleached and deodorised (but not hydrogenated) oil with acid-activated, finely-divided adsorbent, e.g. acid-treated Al₂O₃ (total surface area at least 25 sq. m/g pref. at least 50 sq. m/g).

Removal of (II) from cottonseed oil affords fried prods. (esp. potato chips) in which the desirable odour and taste is more effectively retained even under conditions normally leading to light struck. (It is disclosed that (II) are responsible for the presence of 1-decyne in light-struck fried foods). (7pp)

HOFF D13 89713 B/50 = US 4283-559
Synthesis of astaxanthin - from new tri:methyl-cyclohexenone deriv.

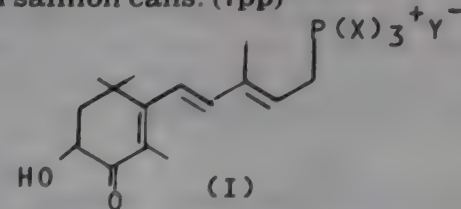
HOFFMANN-LA ROCHE INC 29.03.79-CH-002922 (02.06.78-CH-006074)

E24 (11.08.81) *EP---5-748 C07f-09/54

21.05.79 as 040625 (982WB)

Phosphonium salts of cyclohexene derivs. of formula (I) (where X is aryl, pref. phenyl and Y is halogen) are new. (I) is produced from 6-hydroxy 3-(5-hydroxy-3-methyl 1,3-pentadienyl) 2,4,4-trimethyl 2-cyclohexen-1-one (II) and is used for producing the natural colouring agent astaxanthin by reacting with a dialdehyde.

(II) is produced from a 2-hydroxyketo isophorone, and astaxanthin occurs in salmon cans. (7pp)



INFL ★ D13 64164 D/35 ★US 4283-559
4-Methyl-3-cyclo-hexenyl-methanol derivs. - useful organoleptic agents for perfumes, foodstuffs, medicinal prods. etc.

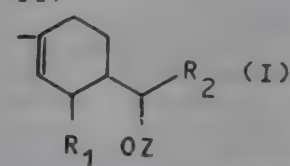
INT FLAVORS & FRAGR INC 05.12.79-US-100528 (20.10.79-US-953128)

B05 E13 (11.08.81) C07c-33/14

05.12.79 as 100528 Div.ex 4197328, 4221721 C.i.p. 4195099 (+2.2.79-27.6.79-US-008925, 052334) (1248)

4-Methyl-3-cyclohexenylmethanol derivs. of formula (I) are new. In the formula Z is H or MgHal, the Hal being Cl, Br or I; and (a) R1 is Me and R2 is EtCHMe or allyl; or (b) R1 is H and R2 is pentyl.

Cpds. (I) are broadly disclosed in US4197328 (Der. 29130C/1) and are organoleptic agents used to augment the aroma or taste of foodstuffs, perfumes, colognes, toothpastes, chewing gum, medicinal prods. etc. (18pp)



See Also

D15 J5 6087403	D16 J8 1032918	D16 J8 1032919
D16 J8 1033073	D16 SU 786916	D16 SU 786917
D23 J8 1032989	D23 SU 786912	

D14: FOODSTUFF MACHINERY

STED/ ★ D14 62494 D/35 ★DE 3005-604
Strainer for solids sepn. from liquids - is plastic funnel with foil slots of downward decreasing size insides

STEDING R 15.02.80-DE-005604

(20.08.81) A23f-03/16 A23f-05/26 B01d-23/28

15.02.80 as 005604 (39KB)

A filter, esp. for hot drinks such as tea or coffee, is a funnel in the shape of an inverted truncated cone, made of a rigid and heat-resistant plastic. The bottom is closed, the top open and the sides have two windows in which metallic filter foils have been inserted. These foils have rows of elongated slots which decrease in length and in width from the top towards the bottom.

This filter results in a quick and uniform filtering action, independent of the height of the ground material in it. Fine grains are prevented from entering the filtrate. (11pp)

VVBZ- ★ D14 62557 D/35 ★DE 3043-730
Centrifugal flash dryer - with tangential inlet and outlet of cylindrical drum enclosing revolving shaft and blades

VVB ZUCKER & STARKE 21.12.79-DD-217975

Q76 (20.08.81) F26b-03/10

20.11.80 as 043730 (39AS)

Centrifugal flash dryer for pasty, adhesive, agglutinant and moist material, e.g. potato gratings or starch, consists of a cylindrical horizontal or vertical dryer with a dia.-to-length ratio of 1:1.5 to 1:12 (1:2 to 1:6). A central shaft carries adjustable blades, passing close to the wall, and a tangential inlet, for the material and the drying agent, is provided at one end of the drum and a tangential outlet at the other end. A motor drives the blades in the same direction as the swirling flow.

Arrangement results in a greatly simplified centrifugal flow, feed and distribution of drying agent and moist material. No interruptions occur due to encrustations. (15pp)

MIKE- ★ D14 62696 D/35 ★FR 2472
Extrusion press for confectionery icing, tooth paste etc. - single piston simultaneously delivering two pastes as composite extrusion

MIKE & KREMMEL LTD 02.01.80-GB-000100

P71 + Q56 (10.07.81) A23g-03/28 B01f-03/10 B01f-05/06 B01f-07/14

30.12.80 as 027762 (448KB)

The press comprises a cylinder contg. a piston which is advanced from one end while the other end has a discharge nozzle through which the advancing piston extrudes paste. Inside the cylinder a coaxial open-ended pipe extends some distance from the discharge nozzle towards the piston. The volume of the cylinder between the piston and the adjacent open end of the pipe is filled with one type of paste and the vol. around the pipe with a different, second type of paste.

The pipe has at least one radial passage adjacent the extrusion nozzle. This allows at least one line of second paste to be extruded upon a core of first paste. This composite extrusion is produced continuously as the piston advances. Several radial passages may be formed through the wall of the tube.

Used in extrusion of pastes, icing etc. for the mfr. of confectionery prods., biscuits, tooth paste and cosmetic creams. (7pp)

GELB/ ★ D14 62726 D/35 ★FR 2472
Machine for extrn. of juice from soft fruits - separates stone from pulp by rotor blades pressing juice and flesh through cylindrical screen perforations

GELB G 09.01.80-FR-000375

(17.07.81) A23n-01

09.01.80 as 000375 (448KB)

The machine comprises a horizontal cylindrical chamber at both ends and contg. a coaxial, cylindrical, perforated screen extending full length of chamber. Within this fixed screen a coaxial rotor is turned by an external motor. One end wall of the chamber has an aperture through which fruit is fed into the screen interior. The opposite wall has a discharge aperture through which waste solids to be cleared from the screen interior are removed.

The rotor has a centre shaft fitted with radial arms each carrying a longitudinal blade which sweeps the circumferential inner face of the screen with slight clearance, pref. about 0.5 mm. The rotor pref. has 2-6 blades. At least two blades are pref. angled in opposite directions w.r.t. the swept surface. Between the chamber end wall with discharge aperture and the adjacent ends of the rotor blades, an axial clearance is provided which exceeds the size of fruit stones to be discharged. (9pp)

GUIG/ ★ D14 62751 D/35 ★FR 2473-479
Dispenser for package of frozen prod. from bottom of stack - employs grippers with inflatable bellows jaws spring-loaded against extension

GUIGAN J 16.01.80-FR-000900 (29.01.79-FR-002199)
P27 Q35 (17.07.81) A23p-01 A47f-10 B65g-59/06
16.01.80 as 000900 (448RH)

In the parent patent, a dispensing mechanism delivered a single packet of frozen prod. from the bottom position in a vertical stack of such packages. The mechanism comprises a pair of jaws to grip the bottom package and free it from the remainder of the stack which is retained by a holding device. The jaws and the holding device grip the packages with independently inflatable pads. As a pad collapses to release its grip, there is no danger of ice adhesion between pad and package.

In this addn. each pad now comprises a rigid back plate on which a bellows is fixed to be extended by inflation with compressed air. The bellows has two opposed walls each with a central 'V' formation, the apexes of the 'V's pointing towards each other. The 'V's are opened out as the bellows extends. The apexes of the 'V's are spring-loaded towards each other e.g., by being joined with tension spring.

The spring ensures that the bellows contracts sharply as soon as air pressure is dropped. This makes for a clean, positive release between pad and package. (10pp)

APVC ★ D14 62823 D/35 ★GB 2069-311
Heat treating particulate material - by heat treatment vessel followed by tumbler for treatment with liq.

APV CO LTD 15.02.80-GB-005147
(26.08.81) A23l-03/16

15.02.80 as 005147 (525HM)

Appts. for heat treating particulate material comprises a first rotary heat treatment vessel and a second such vessel adapted to receive a mixt. of heated particulate material and liquid from the first vessel. The second vessel includes a screen which in one position retains the particles whilst allowing the heated liquid to pass to an outlet for recirculation back to the first vessel, and in a second position allows the particles to drop into a second treatment subsequently introduced into the second vessel.

The invention finds use in cooking and sterilising food particles by treatment with live steam in the first vessel and with a sauce in the second vessel. An increased output is achieved over the prior art. (4pp)

NEST ★ D14 62824 D/35 ★GB 2069-312
Batch heat treatment of particulate solids - in rotating vessel with liquid subsequently separated in second rotary vessel

SOC PROD NESTLE SA 15.02.80-GB-005182
(26.08.81) A23l-03/16

15.02.80 as 005182 (1358KB)

Treatment partic. of foodstuffs, comprises heating in a rotating vessel imparting a tumbling action and contg. substantial amts. of liquid, then transferring the mixt. to a second rotary vessel, discharging the liquid, introducing a different liquid and rotating to tumble and blend solids and liquid.

Solid and liquid are pref. sepd. in the second vessel by a reversible strainer and the solids is cooled in the heat-treatment vessel. The second vessel does not require a jacket. The first liquid is e.g. hot water, partly formed by condensn. of live steam injected to heat the batch. The second liquid is e.g. a sterile sauce. (4pp)

TOKU ★ D14 62999 D/35 ★J5 6084-629
Drying agent comprises porous silica laminae and fibres - e.g. of cellulose, used to keep food e.g. cookies, and instruments dry

TOKUYAMA SODA KK 14.12.79-JP-161424
J01 (10.07.81) A23l-03 B01d-53/26 B01j-20/10

14.12.79 as 161424 (55NS)

A drying moulding (I) is claimed. (I) consists of an aggregate of silica laminae with average dia. (long axis) of 0.1-30 microns) mean thickness 0.005-0.1 microns, and fibrous material. The ratio of the fibrous material to silica is pref. 100:30-250 (wt.parts). In the silica, the volumn of the pores (pore radius of up to 0.5 microns) is pref. at least 2.5 cc/g.

The prod. is esp. useful for moisture proofing instruments, or foods such as cookies, nori, or senbei etc. Organic and inorganic

be any shape, it can be re-used repeatedly by drying, and can be mixed with other drying agents etc. (7pp)

MATU ★ D14 63138 D/35 ★J5 6085-31
Gas roaster using far IR rays - obtd. by coating radiative material with far IR ray radiating material

MATSUSHITA ELEC IND KK 14.12.79-JP-162911
M13 P28 (11.07.81) A47j-36/02 A47j-37/06

14.12.79 as 162911 (117KB)

A gas roaster utilises far infrared rays is obtd. by a coating the surface of a radioactive material made of Cu or its alloy or Al or its alloy with a far IR ray-radiating substance, e.g. CaO, MgO, Al₂O₃, TiO₂, SiO₂, SiC, ZrO₂ etc., and placing the radiative material so treated so as to heat the outer surface of the radiative materials by gas burner.

The gas roaster is rapid and gives even roasting, is effectively applicable to toaster, etc., because the roaster is most suitable for the heating of foods. Thus, the roaster makes a greater contribution to the saving of energy in roasting foods etc. For example, roasting time required for a food is reduced to 1/4 by using this roaster as compared with the case of the conventional roasters. (3pp)

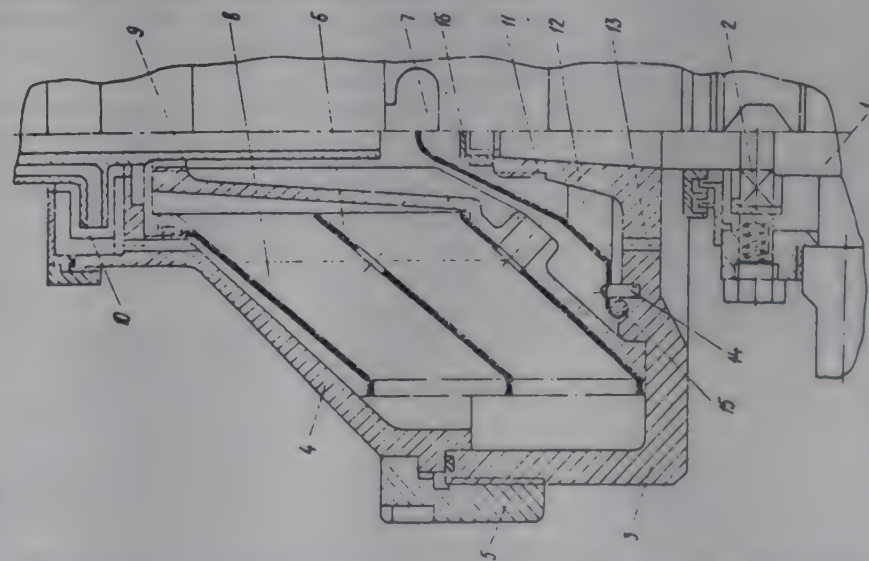
STAR/ ★ D14 63699 D/35 ★SU -787-090
Centrifugal separator for hot liquid substances - contains paraboloidal shell with air cushion mounted between working chamber and main bearing

STAROKOZHEV V A 02.01.79-SU-706316
J01 P41 (17.12.80) B04b-01/08 B04b-15/02

02.01.79 as 706316 (135GW)

Increased service life of the main bearing in the centrifugal separator for liquid substances processed at 50-100 deg.C., e.g. for cream and animal fats, is ensured by protecting the bearing against heat of the substances being centrifuged. For this purpose, between the central shaft (1) which revolves on spring-tensioned ball bearing (2) and the working chamber of rotor (3) is mounted a screen in the shape of a paraboloidal shell (11) fixed to rotor (3) with screws (14) and sealed with O-ring (15).

The air cushion (12) under shell (11) is connected by openings (13) to the atmosphere. The rotor fixed to shaft (1) by nut (16) contains a packet of conical trays (6), lid (4) clamped to rotor (3) by connecting ring (5), central channel (9) for feeding initial suspension (e.g. cream at 75-98 deg.C.), and openings in lid (4) for discharge of light fraction (high-fat-content cream), and top channel (10) for discharge of heavy fraction (buttermilk). The streamlined shape of protective shell (11) reduces fragmentation of fat globules during the sepn. process. Bul. 46/15.12.80. (3pp Dwg.No.1)



MOMD ★ D14 63881 D/35 ★SU -787-826
Food products freezing by direct contact with coolant - involves placing prod. in container so that gap is formed between prod. and container wall

MOSCOW MEAT DAIRY INST 26.02.79-SU-731384
Q75 (15.12.80) A23l-03/36 F25d-03/10

26.02.79 as 731384 (110GW)

The method is used for food prods. freezing and is carried out by prod. positioning in a container and supply of carbon dioxide at high pressure with subsequent retention. In order to reduce loss of prod. mass and reduce energy consumption during transportation and storage process, the prod. is placed in the container forming a gap between the prod. and the container wall. During the retention process a staged pressure discharge is carried out from (5.3-10) x 10 power 5 to the atmos., pressure with pressure intervals between the stages in the limits (0.5-5.0) x 10

power 5. The retention duration is 5-300 secs. Bul.46/15.12.80. (3pp)

MLFO = ★ D14 63882 D/35 ★ SU-787-827
Rapid freezer with vortex heat exchangers - has longitudinal baffles which separate high and low pressure sections, used for fruit and vegetables

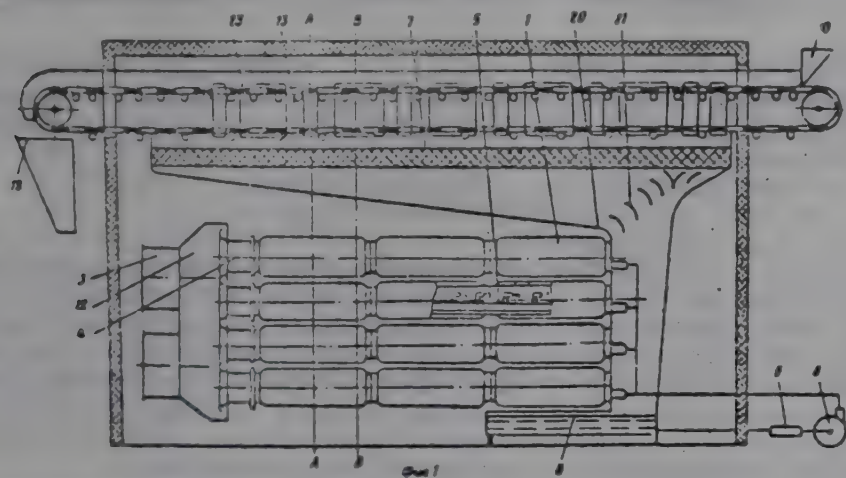
MOLD FOOD IND RES 28.10.75-SU-186448

Q75 (15.12.80) F25d-17/06

28.10.75 as 186448 Add 516884 (110GW)

The rapid freezing appts. described in Parent Cert. No. 516884, can be used for fruit and vegetables. It has vortex heat-exchangers (1) for air cooling, swirlers (4), antifreeze atomisers (5), fans (3) and droplet separators (7) for antifreeze drops sepn. from the air. The appts. also has a tray for antifreeze drops collection, a circulation pump (8) and filter (9).

In order to reduce the size of the appts. size when working with two conveyors, the appts. is additionally provided with longitudinal baffles placed on the high pressure section side forming an additional low pressure section. In order to intensify heat transfer, each vortex heat exchanger inner pipe is connected to the outer pipe along the whole of its length by solid or perforated connectors (2). Bul.46/15.12.80. (3pp Dwg.No.1)



MLFO = D14 90912 B/50 = SU-787-828
Rapid freezer for food - has fan, air cooler, and net-like carrier plates attached to conveyor line which follows helical path through freezer chamber

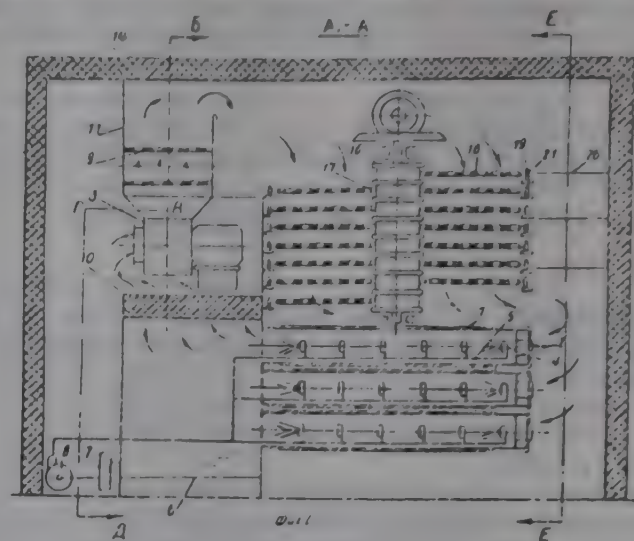
MOLD FOOD IND RES 01.02.78-SU-576361

Q75 (15.12.80) *SE7900-850 + F25d-17/06

01.02.78 as 576361 (110GW)

The rapid freezer has vortex heat exchangers, swirlers, centrifugal fans (3), manifolds with atomisers (4) for antifreeze atomisation, droplet separator (10) and tray (6) for the antifreeze collection. The freezer also contains an arrangement for prods. displacement, a circulation pump 8, and filter 7.

In order to reduce freezer size and ensure freezing of various prods., the prod. displacement arrangement consists of two vertical rotating bearings 16, a multistage cable conveyor (17) (attached to vertical bearings), meshed trays (18) for the products and spiral monorail (19). Rollers for displacement along the monorail are placed on one side of the meshed tray. One end of the tray is provided with a stop for tight connection to the cable conveyor. Bul.46/15.12.80. (4pp Dwg.No.2)



REYN/ ★ D14 63963 D/35 ★ US 4282-853
Adjustable broiler stove - has movable griddle with wt. compensator for applying uniform lift

REYNOLDS HR 15.09.78-US-942637 (10.12.76-US-749316)

P28 (11.08.81) A21b-01 A47j-37

15.09.78 as 942637 (67BZ)

The stove comprises an oven chamber in which radiant heat is supplied from the top having a movable food supporting griddle. The griddle is positioned in the chamber in spaced relation to the radiant top heat and a wt. compensating mechanism compensates for the wt. of food supported by the griddle to ensure that a selected position is reliably maintained within the oven.

Different wts. of food supported by the griddle are readily compensated for so that a selected broiling position can be reliably maintained within the oven. (7pp)

PARW- ★ D14 63989 D/35 ★ US 4283-01
Enrobing appts. for spraying food prod. - has nozzle with piston actuated cleaning plunger for nozzle orifice

PAR-WAY MFG CO 31.10.79-US-090040

P42 (11.08.81) B05b-15/02 B05c-05

31.10.79 as 090040 (67AS)

Enrobing appts. for spraying a food ingredient over the exterior of a food prod. comprises a nozzle having an inner orifice for the food ingredient and an outer orifice for spray air. A piston reciprocates in a cylinder within a housing above the orifices and has attached to it a clean-out plunger that extends through an ingredient delivery tube into the inner nozzle orifice. As the piston reciprocates in the cylinder the plunger cleans and unclogs the inner orifice.

The inner orifice which tends to become clogged by the food ingredient can be cleaned automatically by the clean-out plunger without dismantling the appts. (9pp)

D15: WATER TREATMENT

WASS- ★ D15 62379 D/35 ★ DD-148-627
Water restoration by biological sediment decomposition - by introducing enzymes and carbon substrate into local anaerobic zone created by covering

INST WASSERWIRTSCHA 16.01.80-DD-218479

(03.06.81) C02f-11/04

16.01.80 as 218479 (200AT)

In water restoration by biological sediment composition, a local anaerobic zone is created at water bottom by means of a gas-impermeable, movable covering e.g. welded PVC foil sheets. Enzymes and C substrate are introduced into the anaerobic zone, so as to accelerate microbial decomposition. The water enriched with the sediment-released materials is drawn off after completing decomposition and the sediment is stabilised.

The sediment can be stabilised by supplying O₂-rich water or by

phosphates, CO and CH₄. Marsh gas can be led off and used heating the anaerobic zone. (5pp)

KUBL/ ★ D15 62411 D/35 ★ DE 300
Multistage filter press system for sewage sludge - recharges chambers cyclically between pressure thresholds

KUBLER H 09.02.80-DE-004826

(20.08.81) C02f-11/12

09.02.80 as 004826 (39BZ)

Sewage sludge is dewatered in a multi-stage filter press in a first active period of pumping the sludge with additives of or Ca(OH)₂ or FeCl₂ is ended when an upper pressure threshold is reached. In several subsequent cycles the pump is switched reaching an upper threshold and is started when the pressure dropped to a lower threshold. At least the first topping-up cycle started with a time delay relative to the time of reaching the upper pressure threshold which lies between a typical

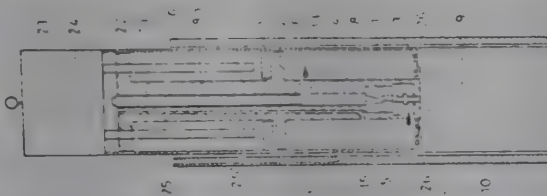
Although the dry matter content of the filter cake may be at most 2-5% deg. than the optimum of 55%, the filtering time is reduced by 30% and more so that a 25% higher throughput is achieved. (30pp)

IHLE- ★ D15 62415 D/35 ★ DE 3004-855
Measuring waste water activated sludge oxygen consumption - using hollow chamber with internal suction and compression device

IHLE INGENIEURGES 09.02.80-DE-004855
S03 (20.08.81) G01n-37
09.02.80 as 004855 (1297DH)

Arrangement is described for measuring changes in condition of liq. pumped around a loop is esp. for measuring the oxygen consumption in a waste water activated sludge mixt. using a measurement sensor. The liq. is sucked into and forced out of a container (1) internal chamber (4) via an opening. A compression device moves inside the chamber and is of a corresponding cross-section. The pump (5) and measurement sensor (6) forming the liq. loop are arranged inside the container (1). The compression device may be a swivelling flap or a piston (2).

The device is simply constructed, easy to operate and economical. Its control and regulation systems are economical and an additional tempering of the liq. is unnecessary. The device can be cleaned economically. (18ppDwg.No.2)

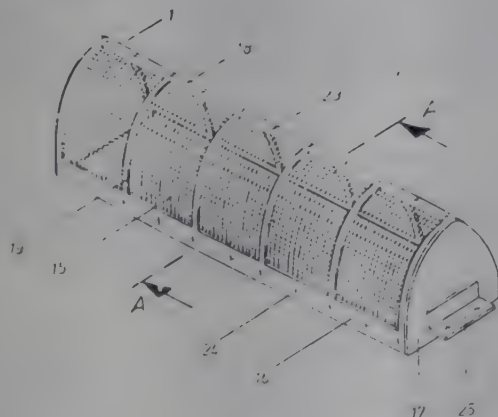


LENZ/ ★ D15 62430 D/35 ★ DE 3004-961
Construction of basket with internal fabric - for screening particles from cooling or drinking water

LENZ R 11.02.80-DE-004961
J01 K06 P43 (20.08.81) B01d-29/04 B07b-01/46
11.02.80 as 004961 (1480DH)

A basket with an internal screening fabric is affixed to belts motor-driven in a closed circuit or to circular holding drums and is intended for removing particles from outwardly moving liq. It consists of a hollow open structure assembled from angled and flat profiles welded into basket shape. A pre-formed fabric of corresp. shape is gripped inside the basket by clamping strips, washers and holding screws. The baskets are strong enough to resist the pressure differences arising during screening.

Used for removing contaminating particles from drinking water or from the cooling water in thermal or nuclear power stations. The internal location of the fabric makes clamping bands unnecessary, and since standard profiles are widely used and less welding is involved, total production cost is reduced by about 40%. (14pp Dwg.No.3)



BOSC ★ D15 62457 D/35 ★ DE 3005-249
Closed cycle exchanger resin regeneration - by concurrently pumping regenerating agent over resin pref. in two steps and washing

BOSCH R GMBH 13.02.80-DE-005249
J01 M14 (20.08.81) B01j-49 C02f-01/42
13.02.80 as 005249 (200RH)

Ion exchanger resin (A), regeneration by passing a regenerating agent concurrently over (A), the regenerating agent is pumped around in a closed cycle, contg. (A) until the reaction is completed.

The process can be applied to all ion exchangers, esp. to cation exchangers for removing metal ions, e.g. from galvanising plant rinsing waters. A quasi-unending resin column condition is achieved. Exchanger capacity is made high use of with only a small regenerating agent excess, e.g. a 10-20% excess.

Regeneration pref. takes place in 2 steps. A regenerating agent-free, highly conc. extract is formed in the 1st step and a regenerating agent-contg. extract in 2nd step. About half of total regenerating agent required is used in each step. Extract of 2nd step can be used for pre-regeneration in a subsequent regenerating cycle. Regeneration is followed by a pref. multi-step washing process, in which the washing water too is pumped round in a closed cycle. (11pp)

ROTE- ★ D15 62459 D/35 ★ DE 3005-251
Floating material sepn. from grinding waste waters - by adding inorganic acid soln. contg. polyvalent cation and or polyelectrolyte, adjusting pH and flocculating

ROTENBURGER METALLW 13.02.80-DE-005251
(20.08.81) C02f-01/52
13.02.80 as 005251 (200RH)

Grinding-, esp. frictional grinding waste waters are worked up (a) mixing with 0.01-10 (0.1-1)% inorganic acid soln. contg. 5 g/l to saturation, esp. 10.-15 g/l, di- or polyvalent cations and/or 0.1-5 g/l cation-active polyelectrolytes. (b) A neutralising agent is added to set pH 6-9 (6.5-8.5). (c) A flocculant is charged until flocculant concn. in waste water reaches 0.5-20 (1-5)mg/l. While adding the chemicals, the mixt. is stirred. After flocculant addn., stirring velocity is reduced for 10 secs. to 5 min., so that the sludge can be sepd. from water by settling.

Floating materials are flocculated, to form a clear run and a sludge which settles and can be separated by filtration.

The acid in (a) is esp. HCl. The cations can be Fe, Mg and esp. Al and Ca. In (b) pH can be set with milk of lime. While adding the chemicals, the waste water is stirred esp. at 200 r.p.m. stirring is then continued at 60 r.p.m. for 1-2 min. (8pp)

DAMB- ★ D15 62500 D/35 ★ DE 3005-635
Demetallising aerobic clear sludge suspension contg. metal sulphate - by adding cpd. forming soluble metal deriv. which is pptd. and sepd.

DAMBACH-INDUSTRIE AN 15.02.80-DE-005635
(20.08.81) C02f-11

15.02.80 as 005635 (200AT)

In metal-, esp. heavy metal removal from a clear sludge, present as an aq. suspension, an aerobic clear sludge is used, contg. the metal components as metal sulphates. (a) A chemical cpd., (I), is added which converts the metal sulphates into water-soluble metal cpds. (b) The suspension is mechanically sepd. into a solids-rich- and a solids-deficient phase. The solids-deficient phase contains the metal cPds. dissolved in water. (c) The dissolved metal cpds. are pptd. out of the solidsdeficient phase by adding a precipitant and/or flocculant, and sepd. mechanically.

The de-metallised low solids phase can be discharged to sewer system. Sepd. metal cpds. can be recovered. The metal-depleted high solids sludge, contg. about 100 ppm metal, can be used in agriculture. (12pp)

SCHN/ ★ D15 62501 D/35 ★ DE 3005-637
Liq. farmyard manure treatment - using paddle-mixer and hot air produced from natural sources

SCHNEIDER A 15.02.80-DE-005637
P11 (20.08.81) A01c-03/02

15.02.80 as 005637 (39AT)

Liq.-animal farm waste and liq. manure in a pit are treated with gas or air which has been heated before injection into the pit contents. The heat input required comes from natural sources; either the air is taken from the warm air extraction plant in the animal stables, or it is heated by solar heat collectors or heat pumps using the heat of the earth.

This is a simple and low-cost method of speeding up the fermentation and of improving it. (9pp)

GKSM- ★ D15 62553 D/35 ★ DE 3013-905
Organic cpd.-contaminated waste water purificn. - by ozonising using chemically stable, inert adsorbent catalyst pref. silica gel

GKSS FORSCH GEESTA 11.04.80-DE-013905
(20.08.81) B01j-21/08 B01j-35/02 C02f-01/78

11.04.80 as 013905 (200AT)

Catalyst for ozonising contaminant-contg. waste water has (a) chemical stability to ozone, (b) long-term stability, and (c) can be shaped for use in packed columns. The catalyst is an adsorbent inert towards O₃, esp. SiO₂ gel or an SiO₂ gel-coated filler. Pref. packed column-fillers are pyrolysis silicate or silicone elastomer calcined at 600 deg.C under N₂.

Catalytic ozonising process use in organic cpd.-contaminated

waste water processing to drinking water is claimed. The catalyst retains its catalytic activity in use. Even low residual organic cpd. concns. can be eliminated completely. (22pp)

FARB ★ D15 62597 D/35 ★ EP --33-903
Precipitating agent for phosphate ions and colloids - is mixt. of hydrated ferrous, ferric and aluminium sulphate(s)

BAYER AG 09.02.80-DE-004825

E31 (E33) (19.08.81) B01d-21/* C02f-01/58

28.01.81 as 100614 (1251HM) (G) DE2843053 EP---9718 AT-143455 DS-124374 CH-227986 E(AT BE CH DE FR GB IT LI NL SE)

Precipitant comprises (wt.%) FeSO₄ (A) 10-50 (15-35); ferric sulphate (B) 16-50 (18-40); Al sulphate (C) 2-15 (3-12); MhSO₄ (D) 0-10 (3-10); TiOSO₄ 0-10 (3-10), all hydrated so that water of hydration (F) is 5-30 (8-28). Opt. the compsn. includes an excess of metal oxides of up to 25 wt.% (on total mixt.).

Also new is prepn. of a pptg. agent by reacting 1 mole (A)-hydrogen sulphate (pref. FeSO₄.H₂SO₄) with 0.6-1 mole ferric oxide (which has not been heated at over 850 deg.C during its prepn.). The mixt. is opt. heated at up to 150 (70-150) deg.C, and air can be introduced during the mixing and heating stages.

The compsn. is used to ppte. phosphate ions and to flocculate colloids in waste water. It produces a sludge which settles more quickly and which has a higher solids content than sludges prod. from individual sulphates. (24pp)

WATE = ★ D15 62694 D/35 ★ FR 2472-943
Floating decanter with tubular risers to clarify river water etc. - pumps water ashore from collecting tank above risers

WATER PROBLEMS RES(PAMF=) 07.01.80-FR-000244

Q42 (10.07.81) B01d-21/02 C02f-01/52 E02b-15 E03b-09/16

07.01.80 as 000244 (448HM)

Installation is for clarifying water taken from a river etc. by passing the water through a floating decanter. The installation is of the type which comprises a float supporting a submerged enclosure. The enclosure contains a set of parallel riser passages, open top and bottom and set at an angle between horizontal and vertical. Water passes up the riser passages, depositing solid impurities en route. The open tops of the risers deliver into a reception tank.

The lower ends of the risers are now divided into a number of groups. Each group is provided with a common, vertical entry channel extending below the risers. The reception tank overflows into a surrounding channel which supplies the inlet of a delivery pump.

Preclarification of turbid water from rivers etc. to be further purified for drinking. Clarification of turbid water for irrigation, factory processes and services. Adaptable for wide range of capacities e.g. between 5,000 cubic metres/day and 25,000 cubic metres/day. The plant can handle water contg. originally between 1500 and 5000 mg/l of suspended solids. (20pp)

DEGM ★ D15 62698 D/35 ★ FR 2472-951
Three stage reaction appts. for continuous prepn. of coagulant(s) - esp. activated silica or aluminosilicate gel or basic aluminium chloride

DEGREMONT SA 07.01.80-FR-000198

E33 (E36) (10.07.81) B01j-19/18 C02f-01/52

07.01.80 as 000198 (597)

The coagulants and/or flocculants are prepd. by a total or partial neutralisation reaction between 2 primary reactants using three chambers in series. The first (A) is for mixing, the second (B) for storage having recirculating means to (A) and the third is for maturation and the prod. formed is used directly from it for the purificn. of water. The relative reaction volumes are 1 for A, 0-15 for B and 1-20 for C. The amt. of recirculation from (B) to (A) is 0-2000% of the flow.

It is particularly used to prepare activated silica, activated aluminosilicate gel and basic aluminium polychloride, and it enables adequate agitation avoiding local supersaturation, which, for example in the case of basic aluminium polychloride, results in ppt. of aluminium hydroxide. (7pp)

BECK/ ★ D15 62736 D/35 ★ FR 2473-344
Transportation skip for draining liq. from wet sewage sludge etc. - has raised hollow filter member extending up into skip space

BECKERICH C J G 09.01.80-FR-000376

(17.07.81) B01d-35 C02f-11/12

09.01.80 as 000376 (448RH)

An open-topped skip, transporter bucket etc. of the type which is designed to drain liq. from wet sludge being carried in the skip. Within the skip space, a raised hollow member presents a perforated filter surface which extends up into material being

another leads down to drain holes

form a ridge extending longitudinally of the skip space. The lower ends of the plates are set apart and fixed to the bottom of the skip space.

Alternatively, the hollow member can be a perforated pipe several of which project upwards from the bottom of the skip space. The bottom of the skip space can be twin-walled with drain holes in the lower wall and hollow members feeding liq. in the gap between the twin walls.

Used for draining liq. from sludge during transportation after removal from waste water purificn. plants, industrial drainage sumps etc. Improved drainage of entire contents of skip. The new skip remains robust and inexpensive. (10pp)

LONG- D15 87032 A/48 = GB 1596-23
Slurry dehydrator

LONGWOOD ENG CO LTD 31.03.77-GB-013664

+ P71 (26.08.81) *J53123-373 + B01d-25/38 B30b-09/20

23.03.78 as ----- (006AS)

Slurry dewatering appts. comprises a concave screen against which a moving roller carried by a rotor is pressed. An imperforate extension of the screen is shaped to let the roller move radially outwardly, for relieving its pressure effect before it leaves the screen.

Dewatered slurry exits through a port near the junction of the screen and its extension, any slurry which falls off the roller onto the extension being directed back into the appts. (4pp)

BRTO D15 40430 A/23 = GB 1596-31
Single tank purificn. of waste water with oxygen - dissolved in mixt. of recycled aq. sludge and waste water

BOC LTD 12.09.77-GB-037978 (04.02.77-GB-004699)

(26.08.81) *BE-863-517 + C02f-03/22

06.02.78 as ----- (+ 16.2.77; 17.3.77-GB-006490; 011365) (006AS)

Waste water treatment process esp. for sewage, comprising bubbling O₂ into a passage to which are delivered respectively streams of (a) waste material and (b) aq. liquor contg. bacteria sludge.

The combined bubble-contg. streams are fed into a calm upper layer of clarified aq. waste in a treatment vessel, to reduce momentum of the streams before it settles. Stream (b) is recycled material from a lower zone of the vessel. (15pp)

ELSA/ D15 86442 A/48 = GB 1596-31
Rapid sewage treatment under anaerobic conditions - biological bed contg. extracellular enzyme from aerobic cultivation of Gram-positive bacteria

EL-SAYED R M 09.05.77-SE-005386

(26.08.81) *DE2820-086 C02f-03/28 + C12n-09

08.05.78 as 018340 (393AS)

Biological purificn. of liq. waste comprises (a) producing cultivation of only Gram-positive bacteria in an aerobic environment rich in nutrition, a suspension of extra-cellular enzymes and bacteria; (b) sepg. the bacteria from the suspension by transferring the suspension into an environment poor in nutrition, so that the bacteria enters into a dead phase and settles, (c) adding the remaining suspension of extra-cellular enzymes to the waste so that the enzymes are present during purificn. with active microorganisms in the biological bed, (d) anaerobically purifying in the bed to achieve degradation.

Process makes it possible to have a very short retention time in the biological bed and an extremely low formation of sludge. (11pp)

LINK- D15 40762 A/23 = GB 1596-31
Gas-liquid contacting process - by injecting the gas into a stream entering the top of column to create a stable foam

LINKROSE LTD 16.05.77-GB-020488 (26.11.76-GB-049385)

J02 + P14 (26.08.81) *DE2752-662 B01j-01

21.11.77 as ----- (006NS)

Method of contacting liquid and gas, comprises top-feed column with gas and liquid with the latter at speed enough to cause foaming, so that a foam blanket, in which gas is trapped against escape, is formed over the full cross-section of the column top.

Treated liq. is drawn off from the column bottom. Process column contains mobile packing materials, such as a carrier for bio-mass or enzyme. (10pp)

LINK- D15 40762 A/23 = GB 1596-31
Gas-liquid contacting process - by injecting the gas into a stream entering the top of column to create a stable foam

LINKROSE LTD 16.05.77-GB-020488 (00.00.78-GB-007385)

J02 + P14 (26.08.81) *DE2752-662 + A01k-63/04

24.02.78 as ----- Div.ex 1596738 (006NS)

Fish farming process comprises injecting oxygenated wa-

build up a top foam blanket with no air space above it.

O₂ and water flow rates are adjusted to keep the foam blanket stable. (3pp)

UHDE **D15** 70828 A/40 = GB 1596-799
Demineralised water prodn. - by passing water through cation and anion exchange beds, giving prod. for industrial processes and steam raising

UHDE F GMBH 24.05.77-DE-723297

(26.08.81) *BE-867-431 C02f-01/42

22.05.78 as 021181 (977AS)

Prepn. of desalinated water having conductivity less than 0.3 micro S/cm comprises (1) passing feed water through a strong cation exchange material in the hydrogen form, (2) passing the water from (1) contg. not less than 0.5 myNa/l through a strong cation exchange material in the hydrogen form at least 5% and at most 50% of which is in the form of a suspended bed and the remainder of which is in the form of a fixed bed, and (3) passing the water from (2) through an anion exchange material in the OH form.

The water may be used for physical and chemical processes and as feed water for steam prodn. (6pp)

TOLL- * **D15** 62830 D/35 ★ GB 2069-353
Liq. agitating and/or aerating appts. - in which liq. is passed through restricted passage mixed with air and fed into expansion chamber

TOLLEY PROCESS ENG 13.01.81-GB-000940 (15.01.80-GB-001262)

J02 (26.08.81) B01f-03/04 B01f-13/02

13.01.81 as 000940 (525AS)

In an appt. for aerating a liq., the liq. is fed through a narrowing passage to a restricted passage into which air is introduced. The air/liquid mixture passes from the restricted passage into an expansion chamber where great turbulence is effected to ensure a high degree of aeration.

High aeration is achieved. Appts. is of use in the treatment of sewage or organic effluent. (5pp)

ENGH * **D15** 62855 D/35 ★ GB 2069-472
Recovery of precious metals from soln. - by contact with feathers, hair, hoof meal or horn meal

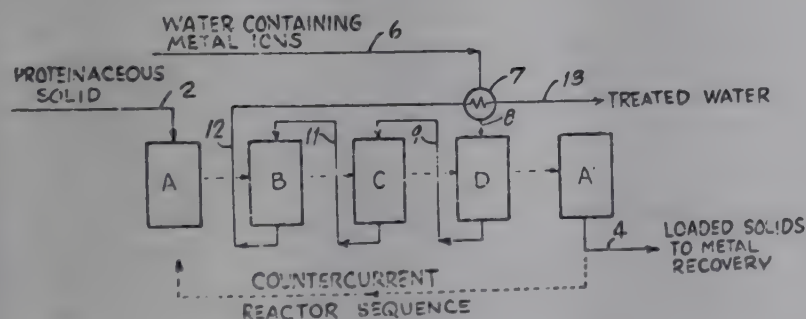
ENGELHARD MINERALS CORP 12.02.80-US-120801

J01 M25 (26.08.81) B01d-15 C02f-01/28

27.01.81 as 002419 (1135DH)

Pt, Pd, Rh, Ru, Ir, Au and Ag may be recovered. Contact is typically at 5-90 deg.C for at least one hour and may be batch or preferably continuous countercurrent. The figure shows the preferred procedure in which the proteinaceous material is passed successively from bed (A) through beds (B, C, D) to bed (A') countercurrently to solution (8).

Useful for the recovery of precious metals from sea water and industrial wastes. Metals can be economically recovered even from very dilute solutions. (6pp Dwg.No.2)



GLOU/ * **D15** 62858 D/35 ★ GB 2069-476
Sterilising water flowing through pipe - by locating flow restrictor in pipe and using water pressure upstream to force sterilising liq. into pipe downstream

GLOUCHKOW P E I 29.01.81-GB-002653 (12.02.80-GB-004555)

(26.08.81) C02f-01/50

29.01.81 as 002653 (525HM)

Water flowing through a mains pipe is sterilised by locating a flow restrictor in the pipe. Water is drawn from the relatively high pressure region above the restrictor into the top of the reservoir and forces sterilising liq. from the bottom of the reservoir via a capillary tube into the pipe at the relatively low pressure region below the restrictor.

The water and sterilising liq. are sepd. by a layer of particulate

material having a specific gravity between that of water and that of the sterilising liq. which may be Na hypochlorite.

Simple plant which requires minimum maintenance and which can be used in supplies to remote villages. (4pp)

FILT- * **D15**
Deodorising candle for filters

FAB FILTROS FIEL 18.12.75-IT-030442

(21.04.81) C02f

D/35 ★ IT 1051-181

EBAI * **D15** 62930 D/35 ★ J5 6015-84
Regenerating ion exchange resin in desalination appts. - include sepg. resin into anion and cation exchange resin and treating with sodium hydroxide and hydrochloric acid respectively

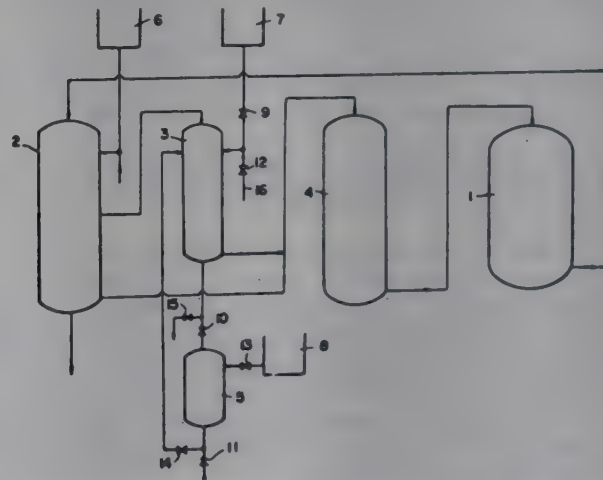
EBARA INFILCO KK 17.07.79-JP-090814

(16.02.81) B01j-49 C02f-01/42

17.07.79 as 090814 (51WB)

Method comprises (a) introducing used resin from a desalting tower (2) to a tower (2) to separate it in to anion exchange resin and cation exchange resin, (b) introducing sepd. anion exchange resin from tower (2) to tower (3), supplying HCl (6) into tower (2) to regenerate the sepd. cation exchange resin, (c) supplying a soln. (7) of NaOH into tower (3) to regenerate the anion exchange resin (d), introducing resulting waste soln. from tower (3) to tower (5) to convert strongly basic anion exchange resin of tower (5) to an OH type anion exchange resin, (e) supplying soln. (8) of CaCl₂ into tower (5) to obtain a soln. of Ca(OH)₂.

Method further involves (f) introducing the soln. of Ca(OH)₂ into tower (3) to exchange Na(+) of cation exchange resin left in the regenerated anion exchange resin with Ca(++) of the soln., to recover a soln. of NaOH used as regenerating agent for anion exchange resin (a), introducing both regenerated resins from towers (2) and (3) to a mixing tower (4) to obtain a mixed resin, and (h) introducing the mixed resin from tower (4) to the desalting tower. (4pp)



NITL * **D15** 62976 D/35 ★ J5 6084-601
Membrane separator module cleaner - where resistance of flow of cleaning balls in liq. is reduced using two branch port dividers

NITTO ELECTRIC IND KK 07.12.79-JP-159589

J01 (10.07.81) B01d-13

07.12.79 as 159589 (26RH)

A device is claimed for cleaning tubular membrane separator modules assembled in a separator for ultrafiltration, reverse osmotic separation, etc. of a liquid. The modules are connected in parallel to a common raw liquid feeder. Cleaning balls such as soft sponge balls are used for cleaning the surface of each module membrane. The object is to reduce the resistance of flowing balls in the liquid, with use of two-branch port dividers.

The novelty is as follows. A first two-branch port divider is connected to the feeder. To each branch port the first divider, a second two-branch port divider is connected. In such manner the feeder is branched up to the same number of the modules, and the final branch ports are connected to them. Through these dividers, the balls are branched and distributed into the modules. (4pp)

KURK * **D15** 62977 D/35 ★ J5 6084-602
Solid-liq. contacting device - for e.g. purifying water with active carbon, includes multiple beds of active carbon which are easily replaced when degraded

KURITA WATER IND KK 13.12.79-JP-160767

J01 (10.07.81) B01d-15/02 B01j-08/08

13.12.79 as 160767 (26WB)

Device is claimed for contacting a liquid such as raw water with a solid such as active carbon charged in a column for purifying the liquid. Support plates are horizontally disposed in the column to form a multi-stage bed of the active carbon in the column.

Each support plate has holes for dropping the carbon down to

the next lower stage, and liquid feed ports for feeding the liquid up the column. The holes of one support plate are located offset to those of both adjacent support plates. (4pp)

MARU- ★ D15 62978 D/35 ★ J5 6084-603
Oil sepn. from water - by passing water through filter medium stretched over porous tube
MARUTOMO KOKEN KK 10.12.79-JP-160013
J01 (10.07.81) B01d-17/02
10.12.79 as 160013 (26KB)

Method is claimed for agglomerating very fine oil drops or emulsion with water and sepg. them from the water, using a filter for sepg. oil from water. The object is to avoid clogging of the filter with suspended solids in the water fed from a water source.

A porous tube is closed with end caps. A filtering medium is stretched over the side wall of the tube. The water source is connected to a circuit for passing the raw water through the filtering medium alternately from the outer side and inner side of the medium at desired time intervals. (3pp)

KANA- ★ D15 62979 D/35 ★ J5 6084-605
Rapid back wash filter - includes rotary holder for tubular filter elements mounted on vertical rotary shaft in pressure chamber
KANAGAWA KIKI KOGYO 12.12.79-JP-160292
(10.07.81) B01d-29/24
12.12.79 as 160292 (26WB)

In a device for filtering crude liquids such as dirty water contg. suspended solids, a rotary holder is mounted on a vertical rotary shaft located in a pressure chamber. Tubular filtering elements are mounted on the holder so as to communicate with a side feed port and drain port of the chamber. The elements are housed in the chamber so as to communicate with its filtrate port. When back washing the elements, the holder is rotated so that the elements are communicated with a back washing source, one after another, while they are isolated from the feed port. (4pp)

TOCH- ★ D15 62981 D/35 ★ J5 6084-607
Solid-liq. separator - has feed hopper above filter drum and pusher plate moving reciprocally along lower bottom wall of hopper
TOCHIGI HOKUBU ISEK 11.12.79-JP-159742
P71 (10.07.81) B01d-33/06 B30b-09/20
11.12.79 as 159742 (26AS)

Device is claimed for feeding a raw material having low fluidity such as excrement of domestic animals to a solid-liq. separator having squeeze rolls in contact with a filter drum. Improvement is that a hopper is disposed above the drum and a pusher plate is movably disposed in the hopper to push the raw material toward the drum. The pusher plate is movable reciprocally along a lower bottom wall of the hopper, extending near to the drum surface, so that the raw material is pushed into a space defined by the roll and drum of the separator. (4pp)

MITC ★ D15 62986 D/35 ★ J5 6084-612
High purity water prodn. - with high temp. condensed water fed into filter contg. elements precoated with carbon fibre pieces
MITSUI PETROCHEM IND KK 10.12.79-JP-159277
Q72 (10.07.81) B01d-37/02 C02f-01 F22d-11/06
10.12.79 as 159277 (26AS)

Prodn. of high purity water to be used in a boiler, from condensed water fed from a heater, uses steam as a heating medium in a chemical prodn. plant such as a petrochemical prodn. plant. Improvement is that the condensed water at 100-300 deg.C is directly fed into a filter contg. filter elements, each precoated with carbon fibre pieces of length 0.2-1 mm and dia. about 10-60 microns.

Clads (sic) and other impurities are removed effectively. (4pp)

NICH- D15 57211 D/32 = J5 6084-613
Purificn. of liq. media - by kneading with viscoelastic material
NIPPON CHEMTECH CON 30.10.79-JP-140974
A97 H03 J01 (D17 H05 H07) (10.07.81) *EP--32-610 + B01d-43 C02f-01
30.10.79 as 140974 (96KB)

Suspensoid is removed from suspension by blending suspension with highly viscous soln., and removing suspensoid from highly viscous soln. contg. the suspensoid. Process removes suspensoid from various suspension consisting of suspensoid differing in sort, quantity and particle size distribution. Pref. highly viscous substance is tar, asphalt, aq. PVA soln., aq. gelatin soln. aq. starch soln. etc.

Dilute aq. suspension (1% solid) of activated sludge was added to a solution of atactic polypropylene were being stirred. This polymer was coloured brown, and

absorbed in an amt. of 20% with atactic polypropylene, and the sepd. water contained 0.01 wt.% of organic substance. (4pp)

NIDE ★ D15 63013 D/35 ★ J5 6084-68
Heavy metal removal from waste water - by adding ferrous salt and alkali to water and stirring to effect oxidn. to ferrite which absorbs metals

NIPPON ELECTRIC KK 12.12.79-JP-161334
J01 (10.07.81) C02f-01/62
12.12.79 as 161334 (51WB)

Method comprises adding a ferrous salt and alkali to waste water contg. heavy metals, gently stirring the resulting soln. in air to oxidise the ferrous salt to ferrite, and adsorbing the heavy metals with the ferrite to remove the heavy metals from the waste water. The ferrous salt is oxidised in oxygen concn. higher than that of atmospheric air.

In an example, 0.1 mol ferrous sulphate was dissolved in 1l of a soln. contg. 200 PPM of Cu(2+), 200 PPM of Zn(2+), and 200 PPM of Ni(2+). The resulting soln. had its pH adjusted to 9.5 with caustic soda. The soln. was stirred at about 250 r.p.m. at 20 deg.C for 9 hours in compressed air of 3 atmos. The ferrous sulphate of the soln. was oxidised to ferrite, and Cu(2+), Zn(2+), and Ni(2+) in the soln. were adsorbed with ferrite. (2pp)

NOJI- ★ D15 63014 D/35 ★ J5 6084-688
Waste water treatment - by adding oxidn. agent to water fed into filter contg. manganese oxidn. catalyst and passing resultant water through activated carbon

NOJIMA-GUMI KK 12.12.79-JP-161820
(10.07.81) C02f-01/72 C02f-09
12.12.79 as 161820 (51WB)

Method comprises (a) adding oxidising agent to waste water, (b) introducing the waste water contg. the agent into a filter consisting of a manganese system oxidising catalyst, and (c) introducing the resulting water into a bed of active carbon to obtain purified water. The catalyst is obtd. by mixing MnO₂ with a binder, shaping the mixt. and sintering it.

Waste water is introduced from a tank (1) into a filtering apparatus (2) to obtain filtered water. Oxidising agent (4) sodium hypochlorite, is added to the filtered water in a tank (3). The resulting water contg. the agent is introduced through a mixer (5) into a filtering apparatus (6) packed with a bed of oxidizing catalyst to obtain purified water.

Method is used for treatment of waste industrial water or drain water. (4pp)

EBAI ★ D15 63015 D/35 ★ J5 6084-6
Treating waste water contg. urine and faeces - by diluting adding magnesium cpd. and opt. hydrogen phosphate, stirring etc.

EBARA INFILCO KK 10.12.79-JP-160176
(10.07.81) C02f-01/56 C02f-03/02
10.12.79 as 160176 (51AS)

Method comprises diluting waste water contg. urine, faeces, BOD, NH₃, and H₃PO₄ with water, adding a Mg cpd. or a mixt. of a Mg cpd. and H₃PO₄ to the resulting diluted water, stirring the water with bacteria deposited solid particles in an aeration tank to biologically treat it, adding a cationic polymer to the resulting water to separate the resulting aggregated substance.

The waste water is introduced with a Mg cpd., such as Mg(OH)₂ or MgO, into an aeration tank equipped with an air lift pipe, and stirred with bacteria deposited solid particles. The resulting biologically treated water is mixed with a cationic polymer to the aggregated agent in a mixing tank, and filtered in a dehydration device to obtain dehydrated cake and sepd. water. The sepd. water is introduced with an inorganic type aggregating agent into a settling tank to obtain purified water. (5pp)

TOKEN ★ D15 63139 D/35 ★ J5 6084-6
Treating toilet flushing water for recycling - by mixing with fungicide, biodegradable colourant, ammonium salt and condensn prod. of formaldehyde and sodium naphthalene sulphonate

TAKENAKA KOMUTEN KK 13.12.79-JP-162344
P34 Q42 (11.07.81) A611-02/16 C02f-01/50 E03d-05/*
13.12.79 as 162344 (117AS)

Faeces washing water is mixed with a fungicide, e.g. fast-acting inorganic chlorine-based fungicide, slow-acting organic chlorine-based fungicide, etc., a biodegradable colourant, e.g. basic blue GGL, an ammonium salt, e.g. ammonium chloride, ammonium sulphate, ammonium nitrate, etc., and formaldehyde condensn. prod. of sodium dinaphthalene sulphonate either separately or in combination, and the

colourising effect and biological treatment effect, and is applicable to the toilet of trains, etc., where washing water is repeatedly used. (3pp)

EBAI ★ D15 63393 D/35 ★ J5 6087-402
Membrane sepg. liq. contg. organic and/or inorganic reductant - into conc. soln. and soln. which has passed through membrane
EBARA INFILCO KK 14.12.79-JP-163311
(16.07.81) B01d-13
4.12.79 as 163311 (96WB)

Process for sepg. liq. contg. organic and/or inorganic reducing substance into conc. soln. and soln. which has passed through a membrane using permeable membrane, comprises treating the liq. with maintaining the treating system under an oxidative atmos., continually or intermittently by adding oxidative substance to the liq.

The surface of the membrane does not become fouled.

In an example, a soln. (contg. organic substance of 720g/l as COD) discharged from biological reaction and sedimental sepn. was mixed with ferric chloride 120 mg/l and hydrogen peroxide 20 mg/l, and reacted for 5 min., passed at 4 kgf/sq.cm through ultrafiltration membrane (differential molecular wt. 12,000), and sepd. into conc. soln. and membrane-passed soln. The membrane-passed water had a 200-150 mg/l COD. (6pp)

DAIL ★ D15 63394 D/35 ★ J5 6087-403
Crosslinked semipermeable membrane - comprising water-insol. polyether polymer contg. hydroxy gps., which are partly substd. and then crosslinked

DAICEL CHEM INDS LTD 18.12.79-JP-164350

A88 (A25 A26 D13) (16.07.81) B01d-13

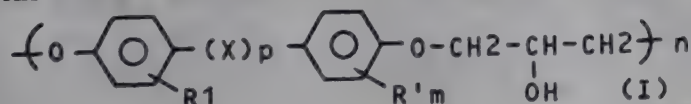
18.12.79 as 164350 (96DJ)

Crosslinked-type semipermeable membrane, is prepared by (1) preparing of semipermeable membrane consisting of water-insol. polymer capable of forming membrane by substituting a part of hydroxyl group of the polymer of the formula (I) with one or more substit. gps. of sulfoalkyl ether group, sulfoaryl ether group, sulfoaralkyl ether or sulphuric acid group, or their alkali metal salts, or their ammonium salts, or their nitrogen-contained basic organic cpd. salts.

(2) crosslinking of the semipermeable membrane with amino resins, aldehydes, di- or tri-functional epoxy cpd., and/or water soluble polyvalent metal cpd.

R and R' are halogen, nitro, or (m)ethyl, X is divalent group, m) ethylene, propylene, isopropylene, propylidene, ether gp., sulphide carbonyl, sulfoxide, sulphonic acid gp. or cyclohexyl methylene group, 1 and m are 0-4, p is 0 or 1, n is an integer 100-1000.

The semipermeable membrane of the invention is used for desalination of sea water, brackish water and brine, treatment of industrial waste water and concn. of fruit juice. (7pp)



TOYM ★ D15 63395 D/35 ★ J5 6087-405
Reverse osmotic module - comprising hollow yarn bundles arranged around a porous casing, used for water filtration

TOYOBO KK 17.12.79-JP-163406

(16.07.81) B01d-13

14.12.79 as 163406 (26DJ)

A module is claimed for filtering a dirty water, using hollow yarns for the reverse osmosis of the water. The yarns are arranged around a porous casing. One end of each yarn is opened at one side of the casing to drain a filtrate of the water through the wall of yarn. The object is to increase the effective filtering surface area of the module, without increasing the total size.

The yarns are bundles of flat bands and the bands are spirally wound around the casing in the opposite spiral directions so that the bands cross to each other at cross points uniformly distributed over the entire outer surface of the casing. (5pp)

NATA/ ★ D15 63396 D/35 ★ J5 6087-406
Fresh water prodn. from sea water - by reverse osmosis, in which pressure tank is immersed in sea water together with filter case subject to sea water pressure

WATANABE I 17.12.79-JP-163708

(16.07.81) B01d-13 C02f-01/44

17.12.79 as 163708 (26KB)

Fresh water is produced from the sea water, using the reverse osmotic method. Method uses a pressure tank, and filter elements housed in a case connected to the tank. A gas feed pipe and filtrate drain pipe are connected to the tank. The object is to easily filter the sea water and take out the filtrate from the tank.

The tank is immersed in the sea together with the filter case subject to the sea water pressure. The inner pressure of the tank is held at atmospheric pressure to apply the difference between the sea water pressure and the inner pressure. Through the gas feed pipe a compressed air is fed into the tank to take out the filtrate. (4pp)

SANY- ★ D15 63398 D/35 ★ J5 6087-409
Oil-contg. waste water purifier - includes inverted conical tank and vertical circular tube in the centre of tank

SANYO KAKO KK 17.12.79-JP-162806

(16.07.81) B01d-15 E01d-17/04 C02f-01/28

17.12.79 as 162806 (26WB)

Device is claimed for purifying waste water contg. oil, utilising the gravitational difference between them. It comprises an inverted conical tank and a vertical circular tube disposed in the centre of the tank.

The tube is so located that the gap between the lower end of the tube and inner surface of the tank is small. An adsorbing filter charged with inorganic adsorbent contg. silica and alumina is disposed at the upper opening of the tank so that the water is fed into the tank and the sepd. water flows into the filter through the tube.

High purity water is obtd. (3pp)

HITT ★ D15 63399 D/35 ★ J5 6087-410
Device for treating waste water - in which sludge pit is formed on bottom of sedimentation and sepn. tank and cover is laid over pit

HITACHI CONSTRUCT MACH 17.12.79-JP-162690

(16.07.81) B01d-21/*

17.12.79 as 162690 (26KB)

A device is claimed for treating a dirty water in a sedimentation and sepn. tank, using an agglomerant for precipitating sludge, while the sludge is circulated in the tank through a circulating pipe outside it. In the conventional device, the sludge was mixed with the raw water in the tank, making difficult adjustment of the sludge circulation rate. The object is to suitably control the sludge circulation rate.

A sludge pit is formed in the bottom of the tank and a cover plate is laid above the pit, above which a stirrer is rotatable disposed for stirring the sludge with the water. An injection pump is inserted into a raw water feed pipe to inject the sludge from the pit. (4pp)

HITT ★ D15 63400 D/35 ★ J5 6087-411
Device for agglomerating suspended solids in dirty water - includes a precipitator-separator tank having an overflow wall attached at the side wall to form basin from which filtrate is removed

HITACHI CONSTRUCT MACH 17.12.79-JP-162689

(16.07.81) B01d-21/24

17.12.79 as 162689 (26RH)

A device is claimed for agglomerating suspended solids in a dirty water and pptg. them in a stirring tank, flock growing tank, and precipitator-separator tank arranged in this order, is claimed, so that the raw water is stirred in the stirring tank with agglomerant to form flock, the flock is grown in the next tank, and the sludge is pptd. in the last tank.

The object is to produce a clean water having a high purity. The novelty is as follows: The precipitator-separator tank has an overflow wall attached at the side wall at one end of the tank to form a basin from which the filtrate is taken out. Side weirs are fixed to the wall and centre weir is vertically movably located at the wall. (4pp)

KUBI ★ D15 63401 D/35 ★ J5 6087-412
Sludge sepn. process - by alternately operating feed pump and drain pump at specified time interval, to drain PPTD. sludge from tank

KUBOTA KK 18.12.79-JP-165201

(16.07.81) B01d-21/24

18.12.79 as 165201 (26DJ)

A method is claimed for precipitating dirty sludge contained in dirty water and sepg. it in a sedimentation tank connected to a water feed pump and drain pump for draining the pptd. sludge from the tank. Both pumps are alternately driven with specified time intervals.

The object is to easily control both pumps depending on the sludge content change in the raw water. Depending on the sludge content in the water, the total drive time of the feed pump is preset. From the preset drive time, the time intervals of the feed pump is determined, while the drive time of the drain pump. (3pp)

KURK ★ D15 63402 D/35 ★ J5 6087-413
Leakproof filter press filter plate - in which feed block is attached to outer edge of frame and communicating with filter chamber via groove cut in recess of plate

KURITA KIKAI SEISAK 14.12.79-JP-162986

(16.07.81) B01d-25/12

14.12.79 as 162986 (26WB)

A filter plate of a filter press is claimed for filtering dirty water. A central recess is cut into each side face of filter plate and a frame is formed along the entire marginal edge of the plate. A filter cloth is laid across the frame to form a filter chamber between the plate and cloth.

A raw water feed block is attached to the outer edge of the frame and connects with the filter chamber through a water feed groove cut into the recess of the plate. The groove is connected with a feed port of the block. (3pp)

TOYO- ★ D15 63403 D/35 ★ J5 6087-414
Liq. filter giving continuous and automatic operation - comprises unsatd. polyester resin, glass flakes and catalyst combination of ketone peroxide and hydroperoxide and/or per:oxy:ester

TOYO FILTER KOGYO K 18.12.79-JP-164231

(16.07.81) B01d-25/16 B01d-29/38

18.12.79 as 164231 (26AS)

Device for filtering a liq. such as dirty water, comprises a rotary cylindrical filter element housed in a filter casing. Improvement is that the element has parallel slits over the entire side wall to form a filtering area. The element is mounted rotatably in both directions in the casing. A disc unit is attached at the casing to clean the slits of the element by means of discs half inserted into the slits, during rotation of the element.

Liq. even of high concn. or viscosity can be continuously and automatically filtered. (4pp)

NISA- ★ D15 63404 D/35 ★ J5 6087-415
Laminated water filter medium - comprising laminated synthetic resin fibre mats having different packing densities

NIPPON SANGYO KIKAI 17.12.79-JP-163751

(16.07.81) B01d-39/16

17.12.79 as 163751 (26DJ)

A laminate filtering medium is claimed for filtering dirty water and the use method therefor is also claimed. The element is suited for purifying water in a fish farming tank. The object is to filter off not only flock but also very fine solids suspended in the water.

The medium consists of synthetic resin fibre mats having different packing densities; the mats laminated so that those having high packing densities and those having low packing densities are alternately laminated. The element is housed in a case so that the raw water first passes through the low-packing density mat, to filter off the flock. (5pp)

MITO ★ D15 63422 D/35 ★ J5 6087-491
Electrolytic treatment of night soil - by adding sea water and electrolysing using insol. anode and alkali-resistant cathode

MITSUBISHI HEAVY IND KK 17.12.79-JP-163932

(16.07.81) C02f-01/46

17.12.79 as 163932 (34KB)

Night soil is subjected to effective electrolysing treatment to remove in single procedure NH₃ and BOD components and simultaneously to carry out sterilisation by adding sea water in such amt. that chlorine ion concn. of the night soil becomes at least greater than 8 times the NH₃-N concn., followed by electrolysing by means of electrodes comprising insol. anode and alkali-resisting cathode.

The oxidation reaction rate becomes more rapid (2 times) than that in convention break point chlorination process due to not only direct oxidn. with chlorine but also to direct oxidn. by electrode reaction. The electrolysing treatment is carried out continuously over long period without any concn. of hard components e.g. Ca²⁺ and Mg²⁺. Process is performed as sec. or advanced treatment, thereby installation area is largely decreased COD removal, deodorisation and decolourisation are achieved. (7pp)

KURK ★ D15 63423 D/35 ★ J5 6087-496
Removing organic material and phosphorus components from waste water - includes aerobically treating with activated sludge and anaerobically treating sludge in presence of calcium ion

KURITA WATER IND KK 17.12.79-JP-162820

E33 (16.07.81) C02f-03/30 C02f-09

17.12.79 as 162820 (34WB)

Organic material and phosphorus components are removed simply by treating waste water without any

contamination of treated water and with a reduced amt. of components-removing agent and a decreased amt. of sludge (a) treating the water with activated sludge under aerobic conditions to degrade the organic matter and to adsorb the phosphorus components onto the activated sludge (b), treating the sepd. activated sludge under anaerobic conditions at pH 8-9 the presence of Ca(2+) to cause release of PO₄(3-) (c), sepg. into liquor and a P-released activated sludge which is recycled to the aerobic treatment; and (d) contacting the sepd. liquor with a sec. crystal of Ca phosphate, e.g., obt'd. by depositing Ca phosphate on a filter medium, e.g., made of Ca₅(PO₄)₃OH(hydroxyapatite), Ca₅(PO₄)₃F (fluoroapatite), Ca₃(PO₄)₂, natural phosphorus ore etc., in the presence of Ca(2+).

Anaerobic treatment of the activated sludge is carried-out with addition of a portion of the crude water. (5pp)

EBAI ★ D15 63424 D/35 ★ J5 6087-497
Treatment of highly conc. organically polluted water - involve oxidising with aerobic bacteria, adding coagulant and dewatering

EBARA INFILCO KK 18.12.79-JP-164236

(16.07.81) C02f-03/22 C02f-11/14

18.12.79 as 164236 (34WB)

Polluted water e.g. night soil etc. is biologically oxidised with aerobic bacteria without pre-dilution by oxidising it biologically then adding coagulant contg. at least a cationic polymer coagulant and mechanically dewatering to separate it into dewatered cake and separated liquor.

The dewatering is easily and effectively carried-out, and the sepd. liquor is highly clarified and its BOD greatly lowered. The amt. of coagulant added in subsequent coagulation treatment is lowered greatly and the amt. of sludge generated is greatly decreased.

Biological oxidation treatment is e.g. carried-out by biological trickling filters, biological fixed-film rotation disk system, submerged filter bed system and diffusion aeration etc. portion of the dewatered cake is recycled to the biological oxidation treatment to maintain MLSS of biological oxidn. treatment apparatus under high concn. (3pp)

JAOR ★ D15 63425 D/35 ★ J5 6087-500
Sludge dewatering in night soil, industrial effluent treatment includes adding cationic or anionic polymer coagulants in excess of that required for neutralising electric charge on solids

JAPAN ORGANO KK 20.12.79-JP-164761

A97 P71 (16.07.81) B30b-09/12 C02f-11/14

20.12.79 as 164761 (34WB)

In dewatering by flocculation a sludge formed in treatment of sewage, night soil and industrial effluents etc. by adding organic polymer coagulant, the improvement comprises adding cationic or anionic organic polymer coagulant in amts. in excess than that required for neutralising the electric charge of solid the sludge and an invert cationic or anionic org. polymer coagulant in amt. for neutralising the excess amt. polymer coagulant, followed by stirring to form yarn-like coagulated substance.

The yarn-like coagulated substance is thus intertwined with flocs of solids to form composite flocs which are easily dewatered using a screw press-type dewatering machine without leakage through its screen. The yarn-like coagulated substance has a dia. of 0.1-0.5mm and length of 0.5-30 mm, and exhibits strong physical strength. (7pp)

SNAM D15 01417 V/01 = J8 103
Seawater desalination plant - with multiple regenerative stages

SNAMPROGETTI SPA 07.07.72-IT-026732

(01.08.81) *BE-801-425 B01d-01/26 C02f-01/04

05.07.73 as 075333 (HM)

Tall vertical column is divided by horizontal bulkheads into a number of short stages each contg., except for the base section, two vertical tube bundle film type evaporators each set being fed from a corresp. tank above it in the same stage and in draining into a corresp. tank in the stage below. The tanks in the top section are fed direct with raw seawater preheated as described below, and the tanks in the base section have evaporators below them but have the conc. brine drains leading from them. Immersed weir type pressure locks are placed at the base of each tank to throttle the pressure differential between stages.

The sea water is preheated by horizontal tube type heat exchangers near the floor of each stage, through which is pumped upwards to the main feeds at the top and then through exchangers which also act as condensers for vapour escaping through separators in the upper parts of the walls of all stages except those in the top compartment, use the latent heat

syphons and the floors are also linked by valved pipes for inert gases which may be used in the column, the bottom having a vacuum connection port. Live steam is injected into the top compartment and the sweet water drained from the base. Reduced scale due to highest concn. of brine being in of the system. (J49053160) (6pp)

KANA/ ★ D15 63559 D/35 ★ J8 1033-124
Oil-water separator - has tanks with ports covered respectively with lipophilic and hydrophilic filters (J5 31.3.75)

KANAIH 28.07.73-JP-085233

J01 (01.08.81) B01d-17/02

28.07.73 as 085233 (26DH)

Device for continuously separating oil from water comprises a filter tank having two filtrate ports. One is covered with a lipophilic fibre cloth filter and the other with a hydrophilic fibre cloth filter. A partition wall is formed between the ports. (J50033551) (3pp)

SEIW- D15 65315 B/36 = J8 1033-125
Flocculant for waste water sludges - contains araban, galactan and rhamnosan, and is used for waste from dye, metal, food or chemical prodn., pulp mills, etc.

SEIWA KASEI KK 31.12.77-JP-158156

(01.08.81) *J54093-851 B01d-21/* + C02f-11/14

31.12.77 as 158156 (3AT)

The flocculant for sludge discharged from dye mfr., metal processing, food mfr., chemical mfr., pulp mills, etc., contains araban, galactan and rhamnosan as components.

The addn. of this flocculant to waste water, after pH regulation and sludge coagulation, in amt. of 1-20 ppm. brings about the flocculation and pptn. of (in)organics, dyes, etc. present in waste water in a very short time. Impurities present in the waste water coalesce into one body, and the coalesced substance is undivisible and also strongly absorbs BOD, COD, suspended solids and dyes. The treated water is very clear, and can thus be discharged to the environment. (J5409385) (3pp)

SUID- ★ D15 63560 D/35 ★ J8 1033-126
Sand and sludge scooper - comprising ejector for jetting water upward and pump for pumping supernatant in pond and feeding to ejector (J5 2.6.75)

SUIDO KIKO KK 15.10.73-JP-114705

J01 (01.08.81) B01d-21/18

15.10.73 as 114705 (26RH)

A device is claimed for removing sand and sludge pptd. in the bottom of a sedimentation pond. It comprises an ejector for jetting water upward, and a pump for pumping the supernatant in the pond and feeding it to the ejector so that the sand and sludge is sucked up by the ejector. (J50065037) (3pp)

NISS ★ D15 63561 D/35 ★ J8 1033-127
Waste water purifier - with filtering medium vertically separated by porous plates through which water passes (J5 9.7.75)

NISSHIN FLOUR MILL KK 03.12.73-JP-134274

J01 (01.08.81) B01d-23/18

09.07.75 as 134274 (26BZ)

A device is claimed for purifying waste water fed into a tank, which is partitioned by vertical porous plates radially arranged around a vertical shaft to form filtering chambers, so that the water passes through the porous plates, each charged with a filtering medium. (J50084966) (3pp)

ROBE- D15 01094 T/01 #J8 1033-130
Filter bed clarifier - incorporating foraminous screens preventing breakup and migration of particle layers

ROBERTS-BOZE INC (ROB) 06.04.70-US-025695 (04.09.71-JP-068443)

(01.08.81) *US3623-978 B01d-37

04.09.71 as 068443 (26DH)

Method and device are claimed for purifying a liquid such as water. The device comprises a filter tank charged with filtering media forming beds in layer on a screen laid in the tank. A grid is laid above the beds to avoid cracking of beds. (J48034371) (8pp)

ZINJ D15 36446 A/20 = J8 1033-133
Liquid aeration by dividing stream into vertical sheets - each encountering downwardly apertured aeration pipe

ZINK J CO 17.01.77-US-759915

J02 (01.08.81) *US4081-378 B01f-03/04 C02f-01/74

12.01.78 as 002346 (295HM)

Liq. is aerated in an appts. which includes a tank closed at the top and bottom. The liq. is admitted to the bottom of the tank and is divided into upwardly flowing vertical sheets by a slotted horizontal dividing wall.

small holes drilled in its under surface on both sides of its lowermost centreline. Near the top of the tank is a horizontal baffle which extends almost to the walls of the tank and serves to separate air from the liq. The air is removed through an upwardly directed pipe near the centre top of the tank while the liq. is removed through a similar downwardly directed pipe.

Appts. is used to add a gas to a liq. and partic. air to water to lower its BOD. The system is simple and aerates a liq. at min. cost and a max. liq. delivery rate. (J53090160) (8pp)

SUMS D15 77472 A/43 = J8 1033-158
Treating waste water contg. suspended particles - by adding fine ferrite powder to agglomerate the suspension; incinerating and recycling after crushing

SUMITOMO SPEC METAL KK 02.03.77-JP-022999

(01.08.81) *J53108-657 + C02f-01/52

02.03.77 as 022999 (117RP)

Treatment comprises adding at least 1 fine magnetic powder, such as Ba-ferrite, Sr-ferrite, Ni-Zn-ferrite or Mn-Zn-ferrite to the waste water to catch any suspended particles. The flocks consisting of magnetic fine particles and suspended particles are subjected to incineration at 300-900 deg.C., and then the incineration residua are crushed for recovery as magnetic fine particles and recycled.

Method avoids formation of residual sludge. (J53108657) (3pp)

MIUR- D15 92162 A/51 = J8 1033-159
Hydrazine deoxidant compsn. for water - contg. cobalt(II) salt and sodium acetylacetonate as accelerator

MIURA SEISAKUSHO KK 06.04.77-JP-039643

E36 (E12 E31) (01.08.81) *J53130-850 + C02f-01/58

06.04.77 as 039643 (6KB)

A hydrazine-type deoxidant is produced by adding to hydrazine hydrate 0.01-5% of a mixt. of 90-30% of a CO₂ + -salt and 10-70% of sodium acetylacetonate as accelerator. Used for removal of dissolved oxygen from water to protect a boiler against corrosion. At a low temp. cpds. of this type show a good deoxidising effect, esp. at 30-40 deg.C.

CO₂ + -salts include CoCl₂, Co(NO₃)₂, CoSO₄, but hydrated or complexed salts can also be used. Sodium acetylacetonate may be easily obtd. by reacting equal mols. of acetyl acetone and caustic soda at not more than 1000 deg.C. The CO₂ + -salt content of the accelerator is pref. 70-50%. If the Co salt content exceeds 90%, the salt itself is less effective, resulting in much lower rate of reaction; if the content is less than 30%, the combined effect of the two reagents is lost. (J53130850) (3pp)

SALA- ★ D15 63593 D/35 ★ SE 7909-739
Probe for use in pumping of sedimented material - activates pump and suction mouthpiece according to solid matter content of sediment

SALA INT AB 26.11.79-SE-009739

(29.06.81) B01d-21/24

26.11.79 as 009739 (1444WB)

In an arrangement for pumping sediment from the bottom of a liquid collection chamber, there is a mouthpiece on the suction device which is on a movable support arrangement. A sensing device measures the concn. of the material and moves the mouthpiece of the suction device, and varies the speed of the pump, according to the concn. (Provisional Basic previously advised in Week D29) (16pp)

BELU ★ D15 63784 D/35 ★ SU -787-415
Water-soluble redox polymer prodn. - by reacting specified amino-polymer with 4,5 di-methoxy-1,2-benzoquinone to increase yield and capacity

BELOUSSIAN LENIN UNIV 22.01.79-SU-750353

A91 J01 (A11 A14) (18.12.80) C08f-08 C08j-05/20

22.01.79 as 750353 (124VE)

Higher yields of water soluble high capacity redox polymers are obtd. more simply by reacting water-soluble amino-polymer(pref. aminodesoxydextran (I), caseine, albumin, polyvinyl amine or partially hydrolysed poly-N-vinyl pyrrolidone) with 4,5-dimethoxy-1,2-benzoquinone (II) at 20-25 deg. C.

Water is used as solvent, the product is dialysed, salted out with methanol or dried lyophilically, and finds use in catalysis, water treatment etc. (3pp)

LEVO- D15 79104 C/45 = US 4283-211
Ambient energy recovery from water and water purification - by freezing with working fluid superheated at m.pt. of water

LEVOR INC 09.04.79-US-028720

G04 X15 Q74 + Q51 Q75 (11.08.81) *DE3013-510 F01k-25/08 + F25c-01 F25d-05

09.04.79 as 028720 (926AS)

Power system is described which uses the latent heat of fusion of water to raise the potential energy of a working fluid and which generates (electrical) power on release. Saline-, brackish- or contaminated water is heat exchanged at at least 0 deg.C with a liq. working fluid with a b.pt. between 0 deg.C so that the fluid is boiled under autogenous pressure and the water is frozen to form ice.

The vapourised fluid is released from pressure in an expansion engine and the heat absorbed from the water converted into available kinetic energy. The vapour is condensed by heat exchanging with a eutectic compsn. and the ice formed in the first heat exchange reaction, less prod. ice in an amt. equivalent to cooling of vapour in the expansion engine.

Prod. ice from the first heat exchange is removed and washed with a small amt. of melt, the remainder being recovered as fresh water. Condensed fluid is pumped into heat exchange contact with extra water in a selected state and against the autogenic vapour pressure of the working fluid at the water temp. (9pp)

BONA-★ D15 64046 D/35 ★US 4283-283
Activated carbon cup shaped water filter - has carbon confined between filter sheets in form of replaceable filter cartridge

BON AQUA 20.03.80-US-132318
(11.08.81) B01d-27/02

20.03.80 as 132318 (1050AS)

Water filter of the type comprising a cup having a mass of activated carbon confined between upper and lower filter sheets, is modified in that the activated carbon and filter sheets form a filter cartridge which is replaceable. The cartridge is cylindrical in cross-section and is an interference fit within a cylindrical wall portion of the cup.

The upper filter sheet extends across the entire inlet end of the cartridge and is sealed to an outwardly-extending annular flange of the cartridge, the flange being supported by an inwardly-extending shoulder of the cup wall. The lower filter sheet is smaller than the outlet end of the cartridge and is sealed to an inwardly-extending annular end wall of the cartridge. The sheet overlies the central cartridge outlet which in turn overlies the pure water outlet.

Design facilitates replacement of filter unit. (6pp)

POGC D15 80227 A/45 = US 4283-290
Recovering e.g. copper or cyanide from aq. soln. - using a liq. membrane process comprising contact with an emulsion having an aq. inner phase and a hydrophobic outer phase

DAVY INT OIL CHEM 06.07.77-GB-028317

E37 J01 M25 (11.08.81) *BE-868-732 + B01d-13

15.10.79 as 084550 (+ 3.7.78, 5.12.77-US-921721, 857821) (393AS)

Recovery of a dissolved species from its aq. soln. involves (a) providing an emulsion comprising droplets of aq. interior phase surrounded by hydrophobic exterior phase which is immiscible with the aq. soln., which is permeable to the species, and which contains non-ionic oil-soluble surfactant, the aq. interior phase comprising a component capable of rendering the species for permeable, (b) mixing the aq. soln. with the emulsion to allow the species to permeate the exterior phase, to desorb from the exterior phase into the interior phase, and to be rendered non-permeable to the interior phase, (c) sepg. the emulsion from the

aq. soln. now depleted in the species, (d) breaking the sepd. emulsion to coalescen the aq. interior phase and (e) recovering the coalesced interior phase contg. the species.

The improvement comprises (f) forming the emulsion by emulsifying the aq. interior phase in the hydrophobic exterior phase under controlled shear conditions to produce droplets of interior phase in the exterior phase all of a size within 0.3-10 micrometers with most of the droplets distributed over 0.8-3 micrometers, and (g) breaking the sepd. emulsion by subsection to an electrostatic field.

Emulsion breaking is effected simply without addn. of further solvents on chemicals. (14pp)

PROC D15 79415 C/45 = US 4283-300
Inhibiting manganese staining, esp. of toilet bowls - by adding soluble polymer to water

PROCTER & GAMBLE CO 09.04.79-US-028612

A97 Q42 (A14 A17) (11.08.81) *EP--18-344 C11d-03/39 + C11d-07/54

09.04.79 as 028612 (937HM)

Staining of water contacting surfaces such as the porcelain of toilet bowl caused by water contg. at least 50 ppb of Mn (II) ions and an oxidising agent is inhibited by dispensing into the water 0.1-10 ppm pref. 3-4 ppm water soluble partially hydrolysed polyacrylamide of ave mole wt. of 2000-10000 contg. amide gps. hydrolysed to pref. 80% to carboxylate or carboxylic acid gps.

The oxidising agent which oxidises Mn (II) to Mn (IV) which results in staining is also identified as a source of hypochlorite ions. (9pp)

SUMO D15 33011 C/19 = US 4283-359
Polyacrylonitrile reverse osmosis membrane prepn. - from soln. in di:methyl:formamide contg. formamide, giving high sepn. capacity (NL 25.4.80)

SUMITOMO CHEM CO LTD (SUMO JAPE) 21.08.79-JP-106763 (23.10.78-JP-130628)

A88 J01 (A14) (11.08.81) *DE2942-763 B29h-07/20 + B29d-27/04
18.10.79 as 085957 (945AT)

Prod. of polyacrylonitrile reverse osmosis membrane involves shaping a soln. of acrylonitrile polymer in formamide-contg. DMF, while maintaining the soln. at above its gelation temp.

Solvent is removed by (1) contacting one side of the prod. with an aq. soln. of temp. below 15 deg. C contg. at least 10 wt.% water-soluble solvent and (2) contacting the other side of the prod. with an aq. soln. of temp. above 0 deg. C contg. up to 50 wt.% water soluble solvent. Contact is immediate or after contact of the sides with an inert atmos. The resulting solidified membrane is heat treated at 50-120 deg. C, then subjected to plasma treatment.

Asymmetric membranes of high mechanical strength can be obtd. Water permeability and salt rejection ability can be controlled. Recovery and refining of solvent in the mfg. process is easy. (10pp)

See Also

D13 GB 1596753 D16 J8 1032911 D16 J8 1033078

D16: FERMENTATION INDUSTRY

BEIN/★ D16 62390 D/35 ★DD-148-643
Green hot processing for brewing - by cutting, dividing into portions, compacting by pressing and deep-cooling until used

BEINING R 17.01.80-DD-218499

(03.06.81) C12c-03

17.01.80 as 218499 (200BZ)

In green hop cone processing by comminution without drying after picking, the freshly picked green hops are cut, e.g. to 0.1-1 mm size; divided into portions, e.g. weighing 0.5-4 kg; compacted to suitable units for deep-cooling; deep-cooled and left in deep-cooled condition until used for brewing.

Compacting to optimum shape can be achieved by pressing, e.g. under applied pressure 1-10kPa, while opt. surrounding the hop portion with a packaging wrap. Before deep-cooling, water is opt. extd. without heating, by standard processes, e.g. by extrusion or by centrifugal force. Preservatives and fermentation catalysts can be added before deep-cooling. The

Bitter principle and aroma loss is minimised. (7pp)

ELSN/★ D16 62391 D/35 ★DD-148-
Yeast feedstuff prodn. - by fermenting paraffin oxidn.-deri aliphatic acid-contg. waste waters and molasses sugar subst. mixt.

ELSNER A 23.01.80-DD-218605

C03 (03.06.81) C12n-01/16

23.01.80 as 218605 (200BZ)

A mixed substrate contg. 5-15% molasses sugar is used in continuous yeast prodn. from industrial paraffin oxidn. w. waters contg. up to 30% water-soluble aliphatic carboxylic acids. Acid proportion is 20-50% HCOOH, 25-45% AcOH, 5% propionic-, up to 10% butyric- and up to 10% other aliphatic carboxylic acids. Fermentation is carried out under standard temp. and time conditions, at pH 4-5.5 and degree of acidity 5.

fermentation vessel. Yeasts, used as feedstuffs for animal nutrition and contg.

waste waters. C-source decomposition reaches over 95%. Energy consumption is small. (7pp)

KRPP ★ D16 62448 D/35 ★ DE 3005-115
Froth formation of gas-liq. reactions - in circulation reactors controlled by side stream injector recycling
KRUPP F GMBH 12.02.80-DE-005115
J04 (20.08.81) B01b-01/02 B01d-19/02 C13g-01/04
2.02.80 as 005115 (39HM)

The formation of froth during chemical or biochemical gas-liquid reactions in circulation reactors is controlled by recycling the froth by a fluid flow from the froth zone into the liquid circulation of thereactor. The fluid flow is generated by a by-pass of the reactor liquid and/or of the gas supply to the reactor.

This saves the use of any chemical agents and saves more energy through a reduced requirement of gas for the reactor than what is needed for the pump to produce the fluid flow. (20pp)

PRZE- ★ D16 62470 D/35 ★ DE 3005-365
Enzymatic processing of opt. fermented tobacco - or plant material, using oxy:reductase, lyase, hydrolase enzymes and or enzyme-generating microorganisms
INST PRZEM FERMENTA 13.02.80-DE-005365
P15 (D18) (20.08.81) A24b-15/20
3.02.80 as 005365 (200RH)

(A) Non-fermented tobacco is treated with oxyreductase and/or lyase enzymes and/or with microorganisms, acting as sources for these enzymes, and processed for 10 min. to 48 hrs. at pH 2.8-9.5 and 20-90 deg.C. Enzyme proportion added is 0.0001-4 wt. %.

(B) Fermented tobacco, or other plant material, is treated with oxyreductase and/or hydrolase and/or lyase enzymes and/or with microorganisms, acting as sources for these enzymes, and processed under the same conditions. Enzyme proportion added is 0.0001-15 wt. %.

(C) Smoking material is prepd. by adding up to 90% comminuted tobacco to the binder mixt. of water and enzymatically converted non-fermented or fermented plant material. The paste obtd. is homogenised, shaped e.g. to sheets or strips, and dried at 80-300 deg.C to moisture content 5-20%.

Enzymatic treatment can (1) reduce cellulose, lignin, hemicellulose, pectin or plant gum substance content by 10-50%; (2) hydrolyse protein and reduce total protein content by 0.4-5%, whereby tobacco taste is improved; (3) convert insoluble organic substances, e.g. cellulose, lignin, starch, etc., to water-soluble substances and form an adhesive mixt. and (4) loosen plant tissue structure, enrich macerate with monosaccharides, e.g. from 10 to 20% and aminoacids, e.g. from 0.4 to 5%. (22pp)

NSP ★ D16 62480 D/35 ★ DE 3005-495
Lipid-coated virus particles prodn. e.g. for influenza vaccine - by treating virus suspension with dissolved halogenated hydrocarbon e.g. chloroform followed by nonionic surface active agent

INST PASTEUR 14.02.80-DE-005495
B04 (20.08.81) A61k-39/12 C07g-07 C12n-07/04
4.02.80 as 005495 (280RH)

In prodn. of lipid-coated virus particles, the following steps are performed at a neutral or basic pH, (A) a lower halogenated hydrocarbon is dissolved in an aq. virus suspension at a concn. at or near its solubility limit; (B) the resulting prepn. is contacted with a nonionic surfactant agent at the minimal concn. capable of effecting splitting of the viria into heavy fragments for a time which is sufficient to facilitate such splitting; and (C) the heavy fragments thus obtd. are sepd. from the reaction medium.

Used in prodn. of vaccines (esp. influenza vaccines) based on immunologically active virus particles. The haemagglutinin and neuraminidase antigens (both of which are required for effective vaccines) are sepd. quantitatively with the lipid-coated virus particles (29pp)

BOEF ★ D16 62486 D/35 ★ DE 3005-540
Plasma heparin biological activity determ. - by incubation with thrombin or factor XA and chromogenic peptide substrate in the presence of exogenous antithrombin and of urea
BOEHRINGER MANNHEIM GMBH 14.02.80-DE-005540
(00.00.78-DE-812943)
B04 (20.08.81) C12q-01/56
4.02.80 as 005540 (280HM)

A new procedure for the determ. of the biological activity of heparin in plasma by the addn. of thrombin or factor Xa as a proteolytic enzyme and of a chromogenic substrate of this enzyme and measurement of the amt. of dye released from the chromogenic substrate, the determ. being carried out in the presence of exogenous antithrombin in accordance with E2812943, the novel feature is that the determ. is carried out in the additional presence of urea.

New reagent for carrying out the above procedure contains 0.01-0.2 mol/l buffer, pH 6-9; 0.05-0.25 mol/l alkali chloride; 200-1100 NIH/l thrombin or factor Xa; 0.12-12 mmol/l chromogenic substrate- 0-0.01 g/l caprotinin; 0-0.03 mol/l EDTA; 0-10 g/l polyethylene glycol; and 20-100 g/l urea.

Used for monitoring blood heparin levels during heparin therapy of patients at risk due to thrombosis. The presence of urea enhances the sensitivity, accuracy and reliability of the determ. at low heparin concentrations. (8pp)

KLEI/ ★ D16 62498 D/35 ★ DE 3005-632
Bio-catalyst beads prodn. by inclusion polymerisation - of enzymes, cells or cell fragments, by spraying enzyme or biomass suspension in polyelectrolyte soln. into counter-ion bath

KLEIN J 15.02.80-DE-005632 (00.00.78-DE-835875)

A96 B04 J04 (20.08.81) C12n-11/04

15.02.80 as 005632 (280AT)

In a new process for the prodn. of biocatalysts with high mechanical resistance and with a high content of enzymatically active substance by polymer-inclusion of whole cells, cell fragments or enzymes using (A) a suspension or soln. of an enzymatically active substance in an aq. 0.1-15 wt. % soln. of a polyelectrolyte and (B) a pptn. bath contg. 0.02-35 wt. % of a cpd. contg. polyvalent ions oppositely charged to the polyelectrolyte of soln. or suspension A, (1) the soln. or suspension A is sprayed into the bath B to form perle-shaped particles of granule size ca. 0.5-10 mm which solidify during stirring for ca. 0.5-4 hrs.; (2) the catalyst perles are filtered off and washed with water, physiological saline or the aq. soln. or emulsion of a protective colloid; (3) the perles are dried (with shrinkage and solidification) by blowing with air at up to 80 deg.C for up to ca. 48 hrs.; and (4) the catalyst perles are equilibrated for up to ca. 24 hrs. in an aq. soln. which stabilises the enzyme and the crosslinking.

Used for immobilisation of enzymes for use as industrial biocatalysts. The biocatalyst perles have high resistance to mechanical pressure and have high enzyme content. (12pp)

KLEI/ ★ D16 62499 D/35 ★ DE 3005-633
Bio-catalyst beads prodn. by ionic crosslinking of polycations - in the presence of enzymes or enzyme systems esp. living cells

KLEIN J 15.02.80-DE-005633 (00.00.78-DE-835875)

A96 B04 J04 (20.08.81) C12n-11/04

15.02.80 as 005633 (280AT)

In a new process for the prodn. of biocatalysts contg. highly sensitive enzymatically active substances by ionic crosslinking of polycations using (A) a soln. or suspension of an enzymatically active substance in an aq. 0.1-15 wt. % soln. of a cationic polyelectrolyte and (B) a pptn. bath consisting of an aq. soln. of a polyvalent anion, (1) the soln. or suspension A is sprayed at -5 to plus 80 deg.C into the pptn. bath B to form perle-shaped particles with a granule size range of ca. 0.5-10 mm which are solidified with stirring for ca 5 mins. to 4 hrs., and (2) the resulting catalyst perles are filtered off and equilibrated with an aq. soln. which stabilises the enzyme system and the crosslinking.

Used for immobilisation of highly sensitive enzymes or enzyme systems (esp. live cells) to give biocatalysts suitable for industrial use. The biocatalyst perles have high resistance to mechanical pressure and have high enzyme content. (13pp)

COMS D16 65030 B/36 = DS 2960-332
Automatic handling appts. for weighing - for use in nuclear, toxic chemical and infectious bacteriological laboratories

COMMISS ENERGIE ATOMIQUE 01.03.78-FR-005866

J04 K07 P62 + Q31 (20.08.81) *EP---3-936 B25j-21 G21f-07/06

26.02.79 as 960332 Based on EPG003936 (160DB)

Automatic machine weighs and empties a vessel with cover, partic. contg. nuclear or dangerous chemical material. Ram-operated mechanisms deliver the vessel onto a manipulation surface, place it on a weighing machine and opposite a cover manipulating mechanism, also engaging it with an emptying mechanism.

Emptying is by inversion of the vessel, and the machine is electrically controlled so that these operations are performed in the correct sequence and also in the reverse sequence after emptying, the vessel being weighed again after refitting the cover, and returned to the manipulation surface. (11pp)

SCHE ★ D16 62579 D/35 ★ EP --33-840
Kijanimicin from Actinomadura kijaniata ATCC 31588 - useful as antibacterial, antiacne, antitumour, antimalarial and antiinflammatory

SCHERING CORP 08.10.80-US-195048 (17.01.80-US-112760)

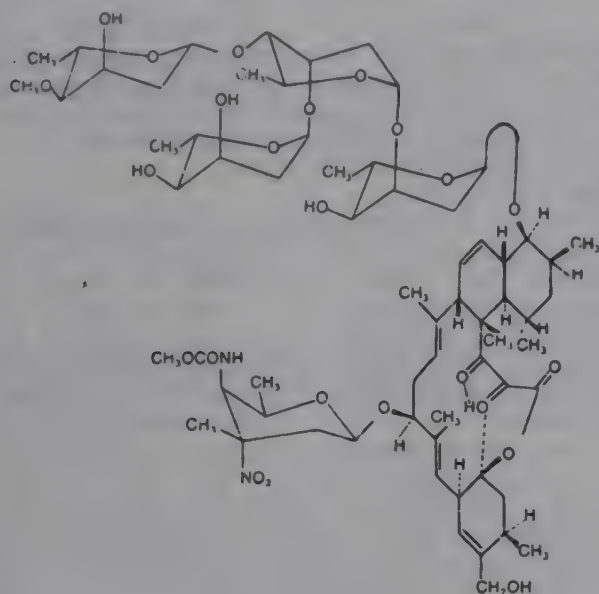
B02 (19.08.81) A61k-31/53 C07h-17/08 C12p-19/62

09.01.81 as 100109 (1248KB) (E) No-Citns. E(AT BE CH DE FR GB IT LIL UNL SE)

Kijanimicin of formula (I) and its salts are new. Cpd. (I) is a broad-spectrum antibacterial, an antiacne agent, antitumour,

antimalarial and anti-inflammatory agent. It has an LD50 of over 1000 mg/kg. orally and subcutaneously in mice. Specific (I) is the Na, K, Rb, N-methylglucamine and Et2NH salts of (I).

Cpd. (I) is obtd. by cultivation of actinomadura kijaniata ATCC 31588, which was isolated from a Kenyan soil sample. Cultural, morphological characteristics etc. indicated a new strain. Cpd. (I) is obtd. in free form having a specific optical rotation and defined circular dichroism value. (38pp)



HOFF ★ D16 62609 D/35 ★EP --33-960
Sample pretreatment for carcinoembryonic antigen assay - by diluting with water and heating

HOFFMANN-LA ROCHE AG 08.02.80-US-120017

B04 S03 (S05) (19.08.81) G01n-33/54

06.02.81 as 100863 (367HM) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Pretreatment of human serum or plasma samples for determin. of carcinoembryonic antigen (CEA) is effected by diluting the sample 1:8-50 (pref. 1:16) with water and heating at a temp. below the protein coagulation temp. (pref. 85-105, esp. 95 deg.C) for 3-30 (pref. 5-10) min. to neutralise interfering substances.

The water used for dilution pref. contains a buffer in an amt. sufficient to give a diluted sample with a pH of 7.5-9. Determin. of CEA can be effected by conventional radioimmunoassay techniques using ca. 0.1 ml of the treated sample.

The process is simpler and more rapid than prior art methods and does not necessitate centrifugation to remove coagulated material (cf. US3663684 etc.). (17pp)

CIPA- ★ D16 62622 D/35 ★EP --33-987
Control of rate of yeast supply to prod. fermenting vessel - automatically related to concn. and fermenting power of sample of yeast suspension

CIPARICIE INT SA 07.02.80-LU-082145

(19.08.81) C12m-01/26 C12n-01/16

19.01.81 as 200053 (448HM) (F) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Process and a plant installation are for controlling the quantity of yeast in liq. suspension to be added into a prod. fermenting vessel contg. a fermentable liq. As the suspension is circulated in closed circuit, a sample of predetermined vol. is periodically drawn off and transferred into a sample fermenting chamber. A measure quantity of nutrient is added to the sample which is then fermented.

The fermenting capacity of the sample is measured from the chamber e.g. by evaluating carbon dioxide gas pressure and/or pH value. The rate of introduction of susp. into the prod. fermenting vessel automatically regulated w.r.t. measured fermenting capacity of the sample.

The closed circuit pref. comprises a yeast suspension supply tank feeding a pump which recycles the suspension via a multi-way valve with a branch leading to a sample fermenting chamber. The same pump is pref. used to meter suspension to the prod. fermenting vessel via a three-way valve in the line between the pump delivery and the multi-way valve. The multi-way valve can pref. be used to introduce in-place cleaning fluids to the closed circuit. Controlling the fermentation or alcoholic drinks such as beer, cider, wine etc. as well as bakery prods. The plate rate of introducing the yeast suspension is automatically adjusted w.r.t. the concn. and fermenting power of yeast in the

ELIL

D16

56971 D/32 = EP --84-00

Narasine prep. by cultivation of streptomyces lydicus strain - is a polyether antibiotic used as a coccidiostat and to increase feed utilisation by ruminants

ELI LILLY & CO 28.01.80-US-115656

B04 C03 (19.08.81) *BE-887-199 + C12p-17/18

22.01.81 as 300300 (395BZ) (E) No-Citns. E(DE GB LU NL SE)

Prod. of narasine antibiotic comprises cultivation of Streptomyces lydicus Deboer et al, NRRL 12034, or its mutants or variants, in a medium contg. assimilable sources of carbon, nitrogen and mineral salts, under immersed aerobic fermentation. The microorganism Streptomyces lydicus Deboer et al, NRRL 12034 is new.

Narasine is a known polyether antibiotic, which is active against Gram-positive bacteria, anserobic bacteria and fungi. It may be used as an anti-coccidial agent and increases feed utilisation by ruminants. NRRL produces good quantities of narasine factor A and weak amounts of factor D, which can be sepd. if desired e.g. by column chromatography. (26pp)

TECD ★

D16

62656 D/35 ★EP --34-050

Immunoassay of antigens using non-radioisotopic label - together with reagent with binding sites for both antigen and label

TECHNICON INSTR CO 07.02.80-GB-004090

A96 B04 S03 (S05) (19.08.81) G01n-33/54

05.02.81 as 300496 (367RH) (E) No-Citns. E(DE FR GB IT)

Immunoassay of an antigen(Ag) in a liq. sample is carried out using (a) a substance bearing a non-radioisotopic label, where the substance is Ag or is so similar to Ag as to be bindable by an anti-Ag antibody, and (b) a mixed binding reagent having at least one site which selectively binds Ag and at least one site which selectively binds the label and modifies its activity, the 2 types of site being spaced apart so that a single mol. of the labelled substance cannot simultaneously be bound by both.

The immunoassay method comprises mixing the sample with components (a) and (b), measuring the activity of the label in the mixt., and thence determining the amt. of Ag.

In contrast the methods using separate anti-Ag and anti-label antibodies use of the mixed binding reagent prevents the labelled substance from becoming bound to both the anti-Ag antibody and the anti-label antibody. (21pp)

CALH- ★

D16

62676 D/35 ★EP --34-0

Safety device for ventilation and filtration circuit - for atmos sealed chamber used for biological or radioactive experiments

CALHENE SA 12.02.80-FR-003067

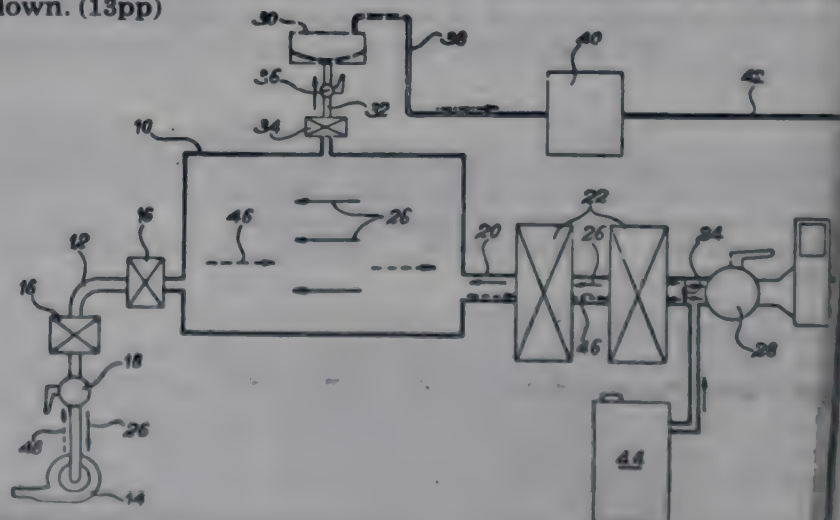
J04 K07 S03 Q74 (S05) (19.08.81) B01l-01/02 F24f-03/16 G2 07/04

04.02.81 as 400177 (1144NS) (F) DE2530608 US3396375 FR21976 FR2130721 E(CH DE GB LI)

The chamber (10) has an inlet channel (20) provided with in filters (22) and a shutter valve (24) regulating the flow of air or gas into chamber (10). The chamber (10) also has an outlet channel (12) equipped with filters (16) leading to a suction fan (14) maintaining a reduced pressure inside chamber (10). The inlet channel (20) is provided with another suction fan (28) upstream filters (22) and, in an emergency, fan (28) is switched on to ensure that the reduced pressure is maintained in chamber (10).

A pressure gauge (30) is pref. used to monitor the pressure inside chamber (10), and is connected to an electric circuit which switches fan (28) on in an emergency.

The chamber is used for biological experiments involving bacteria or a virus, or when radioactive materials are being used. The invention precludes microleakage of dangerous gases etc. from chamber (10) even if its seal fails or fan (14) breaks down. (13pp)



PENT-★ D16 62686 D/35 ★EP--34-122
 Tripeptide derivs. for determination of enzymes in blood - contain a terminal amino Gp. derived from a coloured or fluorescing aromatic or heterocyclic amine
PENTAPHARM AG 12.02.80-CH-001130
B04 (19.08.81) C07c-103/52 C12q-01/36
 06.02.81 as 810036 (140AT) (G) DE2724211 FR2317278 EP---4256
 E(AT BE CH DE FR GB IT LI LU NL SE)
 Tripeptide derivs of formula

R1-D-NH-CH(R2)-CO-N(R3)-CH(R4)-CO-Arg-R5 (I)
 and their salts with acids R1 is an opt. amomega amino-substd. 2-8C alkanoyl gp, an opt. p-amino-substd. phenyl (2-4C)alkanoyl gp, an opt. 4-aminomethyl-substd. cyclohexylcarbonyl gp, benzoyl (opt. o- or p- substd. with Me, amino or halogen), alkoxy-carbonyl (1-8C in alkoxy gp), benzoxycarbonyl (opt. p-substd. with MeO, Me or Cl), 1-4C alkanesulphonyl an opt. p-methylated phenylsulphonyl gp. or alpha- or beta- naphthylsulphonyl.
 R2 is opt. branched 1-6C alkyl, 1-2C hydroxyalkyl, 1-4C alkoxy (1-2C)alkyl, benzyloxy (1-2C) alkyl, W-carboxy (1-3C alkyl) W-alkoxycarbonyl(1-3C)alkyl (alkoxy is opt. branched and has 1-4C), w-benzyloxycarbonyl(1-3C)alkyl, cyclohexyl, cyclohexylmethyl, 4-hydroxycyclohexylmethyl, Ph, PhCH₂, 4-hydroxybenzyl or imidazolyl-(4)-methyl; R3 is H or opt. branched 1-4C alkyl; R4 is H, Me or Et; R5 is amino substd. with aromatic or heterocyclic gps. so that an hydrolysis a coloured or fluorescing cpd. HR5 will be formed).

(I) can be easily dissociated by certain enzymes of the class 3.4.21, esp. Factor Xa, and can therefore be used as a substrate in the quantitative photometric determination of these enzymes, esp. of Factor Xa in blood plasma. (I) are easily soluble and are highly sensitive to Factor Xa and are therefore capable of detecting extremely low conc. of Factor Xa. Synthesis of (I) is simpler and less expensive than that of previous tripeptide derivs. for enzyme determination. (I) can also be used in quantitative determination of Factor X (proenzyme of Factor Xa), Antifactor Xa (antithrombin III or heparin cofactor) and heparin, in human and mammalian blood plasma. (62pp)

TRIG★ D16 62704 D/35 ★FR 2473-038
 Plant to mfr. compost by fermenting organic waste - uses modular parallelepiped, fermenting vessels served by common mobile discharge conveyor
TRAITEMENT INDUS GADOUES 08.01.80-FR-000303
(10.07.81) C05f-09/02

08.01.80 as 000303 (448AT)
 A vessel for producing compost by fermentation of organic waste e.g. sewage sludge, stable manure etc.. The vessel is a vertical column which is loaded at the top and has a horizontal, screw conveyor to discharge fermented material at the bottom.

The vessel is now of square or rectangular cross-section so that several can be fitted flush against each other. The discharge conveyor can be displaced laterally in a horizontal direction to sweep beneath the whole base area of one or several adjacent vessels. (7pp)

GODD/★ D16 62707 D/35 ★FR 2473-059
 Improving quality of wine and other alcoholic drinks - by immersing sealed tube contg. anozite sands esp. thorium
GODDERIDGE M 04.01.80-FR-000091
(10.07.81) C12h-01/16

04.01.80 as 000091 (448AT)
 A method of treating alcoholic drink to improve its quality. The drink pref. has an alcoholic strength of at least 10 deg.. It can be nine of the current vintage.

The treatment consists of immersing in the liq. a sealed tube contg. monazite sands. Esp. the tube contains salts of different rare earth metals and thorium. The treatment lasts for between 12 and 48 hours.

The quality of the drink is improved without adding anything. (3pp)

JAAT★ D16 62754 D/35 ★FR 2473-503
 Prodn. of clean agricultural compost by fermentation of organic waste - after pretreatment by exposure to ionising radiation
JAPAN ATOMIC ENERGY RES 14.01.80-JP-002783
(17.07.81) C05f-09/04

13.01.81 as 000466 (448RH)
 Prodn. of agricultural compost from organic waste material. The Prodn. of agricultural compost and the irradiated material is exposed to ionising radiation and the irradiated material is then fermented with the assistance of a fermenting agent contg. microorganisms. The ionising radiation can be gamma, beta, alpha, or 'X' rays, or streams of electrons or a combination of any of these. The radiation dose provided for the material is pref. between 10 power 4 and 10 power 7 rads.

The moisture content of the material during fermentation is pref. maintained between 40% and 60%. This can be done by

mixing in a humidity modifying agent such as straw or sawdust. The material is pref. irradiated in the presence of air which may be injected by a blower.

Used in making compost from organic waste such as sewage sludge, animal manure, town sewage, stable litter etc. The process eliminates objectionable smells and obviates the possibility of spreading contamination with pathogenic bacteria, parasites eggs, seeds etc. The compost produces no rapid fermentation in treated soil which might endanger crop yield. (12pp)

MCAG-★ D16 62759 D/35 ★FR 2473-546
 Powered mechanism for champagne method of handling bottle crates - controls turning tilting and inversion to collect and discharge sediment

MCAGYROPALETTE 16.01.80-FR-000891
P25 Q35 (17.07.81) A47b-73 B65g-01/02 B65g-07 C12g-01/06
 16.01.80 as 000891 (448HM)

Power driven handling mechanism is for manipulating a crate contg. bottles of wine being treated in accordance with the champagne method of sediment accumulation and ejection.

The mechanism comprises a frame-work enclosure in which the crate is secured for manipulation. The enclosure base is pivotally mounted w.r.t. a horizontal base frame so that the enclosure base can be tilted between a position parallel to the base frame and a position at 90 deg. to the base frame. The complete enclosure can be power rotated about its central axis at right angles to the base of the enclosure.

The tilting action of the enclosure is pref. obtd. via a linkage fitted with nuts which engage jacking screws rotated by motor driven gear boxes.

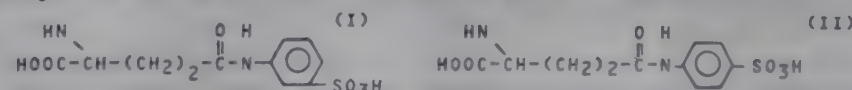
Used for manipulating crates contg. bottles of wine receiving champagne method treatment, i.e. controlled tilting, turning, inversion etc. to accumulate and eject sediment of secondary fermentation. Mechanical handling which eliminates practically all the manual labour previously demanded of cellarman. Reduces training and experience required by 'removers'. With crates each contg. 504 bottles a single cellarman can treat about 25,000 bottles per day. (17pp)

COUE D16 38524 A/22 =GB 1596-461
 Colorimetric determ. of gamma-glutamyl transpeptidase - using glutamyl-sulpho-anilide cpds. as substrate

COULTER ELECTRONICS INC 12.01.77-US-758800
B04 J04 S03 (S05) (26.08.81) *BE-862-746 C07c-143/67 + C12q-01
 12.01.78 as 001249 (965AS)

Gamma-glutamyl-3-sulphoanilide of formula (I) is new. Also claimed in gamma-glutamyl-4-sulphoanilide of formula (II). Pref. (I) and (II) are both in L configuration. Pref. (I) and (II) are in the form of a water soluble salt, esp. alkali metal, ammonia, Mg, tris(hydroxymethylamino) methane, 2-amino-2-methyl-1,3-propanediol, 2-amino-2-methyl-1-propanol and other amine salts. Pref. prepn. of (I) and/or (II) comprises reacting phthaloyl-DL-glutamic anhydride with aniline-3- sulphonic acid hydrate and/or aniline-4- sulphonic acid hydrate, to give the corresp. phthaloyl-DL gamma-glutamylsulphoanilide(s), which is/are reacted with hydrazine hydrate to give the corresp. DL-gamma-glutamylsulphoanilide(s), which is/are then sepd. into the D and L isomers.

(I) and (II) are used as substrate in an improved colorimetric method for the determ. of gamma-glutamyl transpeptidase enzyme activity in a biological fluid. (8pp)



MERI D16 76264 A/43 =GB 1596-591
 Hepatitis B nucleus antigen prepn. - by treating Dane particles with nonionic surfactant and a mercaptan reducing agent

MERCK & CO INC 20.04.77-US-789033
A96 B04 J04 (S03 S05) (26.08.81) *BE-866-096 A61k-39/29
 18.04.78 as 015228 (963AS)

Prepn. of hepatitis B core antigen comprises treating Dane particles (I) with a nonionic surfactant (II) having 15-35 oxyethylene units in presence of a mercaptan reducing agent. (III) Pref. (III) is mercaptoethanol. Pref. (II) is polyoxyethylene(20) sorbitan monooleate, polyoxyethylene (20) sorbitan, monolaurate, polyoxyethylene (23) lauryl ether, polyoxyethylene (20) cetyl ether or alkyl phenoxypolyethoxy (30) ethanol. (I) are pref. obtd. by subjecting biological fluid of human hepatitis B donors to isopycnic banding in a suitable density gradient. (5pp)

MERI D16 76264 A/43 = GB 1596-592
Hepatitis B nucleus antigen prepn. - by treating Dane particles with nonionic surfactant and a mercaptan reducing agent
MERCK & CO INC 20.04.77-US-789033
A96 B04 J04 (S03 S05) (26.08.81) *BE-866-096 A61k-39/29
 18.04.78 as 023093 Div.ex.1596591 (965AS)
 Prepn. of HB(c)Ab human plasma with at least 2000 IAHA units/ml comprises administering HB(c)Ag at predetermined levels to a human individual positive for HB(c)Ab. The individual is then plasmerised when the HB(c)Ab titre is elevated. Pref. a gamma globulin fraction is recovered from the plasma. Also claimed are HB(c)Ab and gamma globulin obtd. (IAHA is immune adherence hemagglutination assay. HB(c)Ab human plasma contains antibody to hepatitis B core antigen, it is obtd. in high yield and purity. (5pp)

MERI D16 76264 A/43 = GB 1596-593
Hepatitis B nucleus antigen prepn. - by treating Dane particles with nonionic surfactant and a mercaptan reducing agent
MERCK & CO INC 20.04.77-US-789033
A96 B04 J04 (S03 S05) (26.08.81) *BE-866-096 A61k-39/29
 18.04.78 as 044611 Div.ex.1596591 (965AS)
 The compsn. (I) comprises hepatitis B core antigen in a medium (II) consisting of TMN-1% BSA, saline or carbonate buffer. TMN-1% BSA is a soln. contg. 0.08 Tris, 0.008M MgCl₂, 0.14 M NaCl and 1% BSA. Pref. (I) is a vaccine effective to produce hepatitis B core antibody comprising inactivated (I). Pref. (I) is inactivated with formalin. Pref. (II) is a stabiliser comprising sucrose, phosphate, glutamine and albumin, as described by Bovarnick et al, J. Bact 59 (1950) pp 501-502. Pref. in the vaccine, the core antigen is adsorbed on a physiologically acceptable substrate, esp. alum. (2pp)

KONN D16 56795 A/32 = GB 1596-653
Orally-administrable rabies vaccine - contains virus number 675 (no CNCTC AO a/77)
GIST-BROCADES NV 26.01.77-GB-003258
B04 C03 (26.08.81) *BE-863-368 A61k-39/20
 24.01.78 as ----- (964RH)
 Rabies virus vaccines for parenteral or non-parenteral admin. comprise, as active material, live in inactivated rabies virus strain nov. spec. no. 675 (CNCTC No. Ao 4/77) or a mutant or variant thereof, which exhibits reproducibly significant cytopathic effect and other characteristics of strain 675.
 The rabies virus may be grown in monolayer or suspended culture of prim. or sec. chicken embryo fibroblasts or in mony layer culture in baby hamster kidney cells.
 The vaccine provides full protection when administered before or after rabies infection. (11pp)

NOVO D16 15971 B/09 = GB 1596-662
Glucose isomerase activated by water-soluble iron salt - is converted into dried particles before use
NOVO INDUSTRIA/S 23.08.77-GB-035368
(D17) (26.08.81) *BE-869-869 + C12n-09/96
 25.05.78 as ----- (974AS)
 Cell mass forms of glucose isomerase are activated by incorporating at least 0.05wt.% (dry basis) of Fe as a non-toxic water-soluble Fe salt. Pref. after the iron is incorporated, the glucose isomerase is converted into a particulate form and dried to obtain an enzyme product in a pre-soaking state. The iron does not have the toxicity of prior art Co salts. (17pp)

KAKE ★ D16 62876 D/35 ★ GB 2069-500
Antibiotics actinomadura L-31A and L-31B - obtd. from Actinomadura sp. ATCC 31793 and useful as broad spectrum antibacterial
KAKEN CHEM KK 15.02.80-JP-016647
B04 (26.08.81) C07g-07 C07g-11
 16.01.81 as 001422 (1248AS)
 Antibiotic Actinomadura L-31A is new. As HCl salt, it is a powder without a definite m.pt. and with a specific rotation (at 25 deg.C for D line) of -34 deg. (c, 0.5 in water at pH 7.5); it analyses for C 51.7, H 6.23, O 21.03, N 13.94, S 5.82 and Cl 1.17%; it has aspartic acid, glutamic acid, glycine, valine, phenylalanine, histidine, leucine and tryptophan as constituent amino acids; and it has characterising u.v. and i.r. spectra.

Antibiotic Actinomadura L-31B is new. As HCl salt, it has similar properties to L-31A, except that the rotation is -26 deg.; it contains aspartic acid, threonine, glutamic acid, proline, glycine, valine, phenylalanine and tryptophan; and it analyses for C 51.0, H 6.34, O 20.75, N 14.81, S 5.91 and Cl 1.08%. Antibiotic Actinomadura L-31 comprising L-31A and L-31B is new.

The L-31A and L-31B have broad spectrum antibacterial activity, being active against over 300 strains of bacteria.

CORP ★ D16 62878 D/35 ★ GB 2069-503
Recombinant DNA contg. amylase coding gene - for genetically engineering microorganisms to produce amylase
CPC INTERNATIONAL INC 12.02.81-GB-004473 (15.02.80-GB-005184)
B04 (26.08.81) C12n-09/26 C12n-15
 12.02.81 as 004473 (985HM)

Recombinant DNA contg. a amylase coding gene (I), prepd. by the in vitro process of cleaving DNA derived from a bacterial donor microorganism (1) and combining the resulting DNA fragments with a vector (II), is new. (II) comprises a plasmid (pref. pBR322, pACYC 184 or pC 194) or the DNA of a deriv. of phage lambda (pref. of phage lambda NM590, NM781 or NM989).

A genetically engineered microorganism (2) contg. the recombinant DNA of (A) is new. Pref. (2) is capable of producing amylase, when cultivated, in amts. greater than that produced by (1).

Prodn. of amylase comprises cultivating (2). Pref. (i) the recombinant DNA is present in the form of a lytic phage and cultivation is in an infected bacterial host; (ii) the DNA is in the form of a phage in a lysogenic E.coli and cultivation is carried out so as to induce phage multiplication by heat treatment; or (iii) the DNA is in the form of a plasmid and cultivation is by growth to the stationary phase.

(2) can be used to produce amylases, esp. on alpha- or beta-amylase or a pullulanase. These enzymes are useful in industrial enzymatic starch hydrolyses (e.g. liquefaction and/or saccharification of starch to produce adhesives, sizings, malto-dextrins, starch syrup, maltose, dextrose, etc.) with flavourable properties such as resistance to high temp., heavy metal poisoning etc. (2) are prepd. by the transfer primarily of the gene for the prodn. of a single amylase therefore minimising the purifcn. problems in the amylase mfr. (19pp)

FARH ★ D16 62879 D/35 ★ GB 2069-504
Microbiologically prepd. human interferon - DNA and plasmid(s) for coding for this interferon, and sepn. of mRNA from human fibroblasts
HOECHST AG 16.02.80-DE-005843
B04 (26.08.81) C07g-07 C12n-15
 16.02.81 as 004763 (985HM)

The following are new. (i) a microbiologically prepd. polypeptide (I), all or part of which comprises the aminoacid sequence of human interferon (pref. of human fibroblast interferon); (ii) a CDNA which codes for (I) whenever prepd. using mRNA obtd. from human fibroblast cells; (iii) a plasmid (pref. pBR 322) which comprises the CDNA of (ii), (iv) a microorganism (A) which comprises the genetic information required for the biosynthesis of (I); and (v) prepn. of RNA which comprises arranging a caesium chloride-free lysate (pref. of human fibroblasts) as a layer on an aq. CsCl soln., centrifuging the resulting system and obtaining the RNA.

(A) can be used to prepare human interferon which has antiviral, cell division inhibiting and immunological reactions regulating activity. Use of CsCl-free lysate achieves the most complete possible sepn. of mRNA from the RNA mixt. (6pp)

WATM- ★ D16 62895 D/35 ★ GB 2069-502
Controlling final carbohydrate content of beer - by adding pullulanase to mash of ground malt, holding to desired sugar level, then enzyme inactivation
WATNEY MANN TRUMAN 08.02.80-GB-004334
(26.08.81) C12c-07/04
 08.02.80 as 004334 (478HM)

The final carbohydrate (I)-content of beer is controlled as follows (a) a mash of ground malt is held at a temp. sufficient to gelatinise the starch (II) but retain the amylase activity; (b) the mash is cooled to below 60 deg.C and the enzyme pullulanase added; (c) the mash is held until the desired fermentable sugar level is reached; and (d) the filtered wort is boiled to inactivate the enzymes.

Starch hydrolysing enzymes are inactivated by boiling in a copper-kettle and are not active in the beer during or after fermentation, and fermentation is faster (glucose inhibition of yeast does not occur). In addn., prepd. beers have good foaming stability and good flavour characteristics. (4pp)

BODD/ ★ D16 D/35 ★ IT 1051-
Appts. reducing electrolytes content of wines
BODDI V 25.11.70-IT-009760
(21.04.81) C12h

JIN ★ D16 63133 D/35 ★ J5 6085-290
 -Glutamic acid fermentative prepn. - by inverting sucrose in cane molasses, culturing bacterial strain which produces the acid and recovering acid

AJINOMOTO KK 14.12.79-JP-162256
 B05 E16 (11.07.81) C12p-13/14 C12r-01/*
 14.12.79 as 162256 (5AB)

Method comprises (a) inverting above 60% of sucrose in cane molasses with invertase, (b) culturing the bacterial strain which produces L-glutamic acid in the culture medium contg. the cane molasses obtd. in (a) as the major carbon source and (c) recovering L-glutamic acid accumulated in the cultured medium.

L-Glutamic acid can be produced with higher yield in the culture medium contg. the cane molasses, of which sucrose is previously inverted with invertase as the carbon source c.f. that obtained in the culture medium contg. cane molasses without inversion. (5pp)

SAH ★ D16 63134 D/35 ★ J5 6085-291
 -Tryptophan prodn. using microorganism - by reacting indole with serine or pyruvic acid and ammonium ion using *Aeromonas*, *Vibrio* or *Bacillus* microorganism

ASAHI CHEMICAL IND KK 13.12.79-JP-160863
 B02 E13 (11.07.81) C12p-13/22 C12r-01/63
 13.12.79 as 160863 (52KB)

Prodn. of L-tryptophan comprises reacting indole with serine or with pyruvic acid and ammonium ion in presence of a cultured microorganism or its processed material of a strain of genus *Aeromonas*, *Vibrio* or *Bacillus* which can convert indole and serine, or indole, pyruvic acid and ammonium ion into tryptophan. L-Tryptophan is an essential amino acid used as drug, nutrition aid or animal feed additive. The invention provides a new process for producing L-tryptophan by new microorganisms.

Organism is *Aeromonas hydrophila* subspecies *hydrophila* IFO 6558, IFO 12978 and IFO 12981; *Aeromonas hydrophila* subspecies *anaerogenes* ATCC 15467; *Aeromonas punctata* subspecies *punctata* IFO 12716; *Vibrio anguillarum* ATCC 14181 and ATCC 19264; *Bacillus alvei* ATCC 6344. The microorganisms may be cultured on a conventional natural or synthetic medium contg. C source, N source and other inorganic or organic nutrients at 25-37 deg. C for 16-96 hrs. It is necessary to add L-tryptophan (0.1-0.7%) to the medium since the enzyme tryptophanase produced by the organism is an adaptation enzyme. The resultant culture broth may be used directly in the reaction, or the organism isolated from the broth by centrifugation or its processed material obtained by ultrasonic wave treatment, autodigestion or grinding may be used. (4pp)

APS ★ D16 63135 D/35 ★ J5 6085-297
 -ergosterol prodn. - by aerobically cultivating appropriate yeast strain in medium contg. isoprenoid substrate and acetoacetate

JAPAN SYNTHETIC RUBBER 12.12.79-JP-160266
 B01 (11.07.81) C12p-33 C12r-01/85
 12.12.79 as 160266 (52WB)

Prodn. of ergosterol comprises culturing aerobically an ergosterol producing strain of yeast in a medium contg. one or more additives of isoprenoid-substrate sources (specific: AcOH and/or leucine) and acetoacetate, and non-ionic surfactants to accumulate ergosterol in the organism, and recovering ergosterol from the organism.

Preferred yeasts include *Saccharomyces cerevisiae* IFO 0334, *S. varium* IFO 0565, *Pichia farinosa* IFO 0604, *Candida tropicalis* IFO 006, *S. lipotica* IFO 0746. The isoprenoid-substrate source includes AcOH, fatty acids, leucine, n-paraffin etc., which may be used in amt. 0.1-3 w/v%. Acetoacetate (Me or Et ester) may be used in amt. 0.1-2.0 w/v%. The non-ionic surfactants include sorbitan fatty acid esters (e.g. sorbitan monolaurate), polyoxyethylene sorbitan fatty acid esters (e.g. POE sorbitan monopalmitate), etc., which may be used in amt. 0.1-1 w/v%. The yeast may be cultured on a medium contg. the additives as well as conventional inorganic salts, C source, N source and trace elements. The use of the additives markedly increase the yield of ergosterol. (4pp)

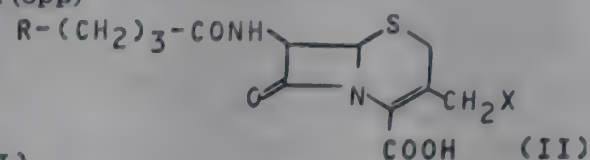
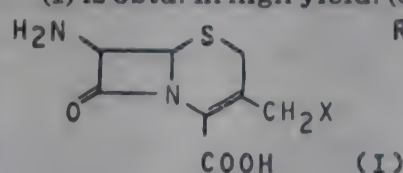
SAH ★ D16 63136 D/35 ★ J5 6085-298
 -Amino-cephem cpd. prodn. - by first adsorbing amide bond cleaving enzyme on porous ion exchange resin

ASAHI CHEMICAL IND KK 14.12.79-JP-161582
 B02 (11.07.81) C12n-11 C12p-35/02
 14.12.79 as 161582 (52AS)

Microbiologically prodn. of 7-aminocephem cpds. of formula (I) from cpds. of formula (II) is characterised by adsorbing an amide bond cleaving enzyme (capable of producing (I) from (II)) on a porous ion exchange resin, and acting the resultant fixed

enzyme on cpds. (II). R is -COOH or -COCOOH; X is nucleophilic gp., esp. H, OH, acetoxy, pyridyl, or thiazole gp.

(I) is obtd. in high yield. (8pp)



AMAN ★ D16 63137 D/35 ★ J5 6085-300
 Determin. of free fatty acids - includes reacting acyl coenzyme/A synthetase with the acids with acyl coenzyme/A to produce hydrogen peroxide

AMANO PHARM KK 12.12.79-JP-160293
 B04 E17 (11.07.81) C12q-01/48 G01n-33/50
 12.12.79 as 160293 (52WB)

Enzymatic determ. of free fatty acids comprises reacting acylcoenzyme A synthetase (acyl-CoA synthetase) with free fatty acids in presence of adenosine triphosphate (ATP) and coenzyme A (CoA) to give acylcoenzyme A (Acyl-CoA) (reaction system 1), reacting acyl-CoA with acyl-CoA oxidase to give H₂O₂ (reaction system 2), and quantitatively analysing H₂O₂ produced colourimetrically with 4-aminoantipyrine and phenol reagent in presence of peroxidase. Myokinase is added to the reaction medium of system 1 to quickly complete the reaction.

In previous methods in which acyl-CoA synthetase is reacted with free fatty acids in presence of ATP, the produced AMP inhibits generation of acyl-CoA and the subsequent reaction of acyl-CoA with acyl-CoA oxidase gives H₂O₂ in poor yield not corresp. to true amt. of free fatty acid. In this method, AMP is removed from the reaction medium with myokinase in order to accelerate the system 1 reaction to give acyl-CoA in sufficient yield. (5pp)

KARA/ ★ D16 63232 D/35 ★ J5 6086-195
 -Anticancer crucivin prepn. - by culturing e.g. *Pseudomonas crucivlae* IFO 12047 strain

KARASAKI T 18.12.79-JP-163505
 B04 (13.07.81) A61k-35/74 C07g-11 C12p-01/04 C12r-01/46
 18.12.79 as 163505 (69KB)

Crucivin is produced by culturing crucivin-producing microorganism and taking out crucivin from the culture body. As crucivin-producing microorganism may be used *Pseudomonas* genus of bacteria, partic. *Pseudomonas crucivlae* IFO 12047 strain. Crucivin has striking anticancer action at lower dosage of 1/20 of LD₅₀ value. LD₅₀ on abdominal admin. is more than 1000 mg/kg and there are found no antibacterial action nor hemolytic action and the fact indicates absence of cytotoxic drug. (5pp)

FUJI ★ D16 63233 D/35 ★ J5 6086-196
 -Antibiotic FR-900148 prepd. from streptomyces spp. - has antibacterial activity esp. against Gram negative bacteria

FUJISAWA PHARM KK 17.12.79-JP-164552
 B04 (13.07.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/46
 17.12.79 as 164552 (69BZ)

FR-900148 substance, sodium salt thereof having the following physicochemical properties, or its pharmacologically tolerable salts are new. Analysis C, 37.48; H, 5.32; N, 8.71; Cl, 10.53; Na, 7.54 (%) M.pt. 143-147 deg. C (decomp.). Specific rotation +77.1 degrees (C is 0.75, solvent is water). U.V. absorption spectra: terminal adsorption I.R. absorption spectra: 3250, 3050, 2950, 2400 (shoulder), 1800-1460 (broad), 1400 (shoulder), 1370, 1250, 1170, 1120, 1070, 1030, 990, 940, 895, 830, 780, 670, 660 cm⁻¹.

Solubility: soluble in water, slightly soluble in (m)ethanol; insoluble in acetone, ethyl acetate and hexane. Colouration reaction: Positive to Ninhydrin reaction, Iodine reaction and Potassium permanganate reaction. Property of substance is ampholytic with PKa value: 3.25, 7.90. Equiv. by titration: 33U. Thin layer chromatography: Rf value of 0.65 on Silica gel, and 0.45 on cellulose using 60% n-propanol-water and n-butanol:acetic acid:water mixt. respectively. Molecular formula: C₁₀H₁₂N₂O₄Cl.Na.2H₂O and (Molecular wt. 318.5).

NMR spectra: (Solvent: Heavy water, inner standard: trimethyl silyl propionic acid sodium salt) delta (ppm): 1.04 (6H, d, J is 7Hz), 2.28 (1H, m), 3.95 (1H, d, J is 7Hz), 4.98 (1H, s), 6.46 (1H, s). Colour of substance: colourless.

FR-900148 substance may be produced by culturing FR-900148 substance-producing bacteria of *Streptomyces* genus in culture medium, separating and taking out FR-900148 substance or its pharmacologically tolerable salts.

FR-900148 substance is a novel antibiotic having antibacterial action to various pathogenic bacteria, partic. gramnegative bacteria. (9pp)

GODO ★ D16 63434 D/35 ★ J5 6087-512
Plant virus disease controlling agent - comprises cpd. AM-3672 which may be used for protecting tobacco, tomato and green pepper crops

GODO SHUSEI KK(KITA NISC) 20.12.79-JP-164843
C03 (16.07.81) A01n-63/04

20.12.79 as 164843 (108WB)

Plant virus disease controlling drug contains as active component a new cpd. AM-3672 having the following properties; (1) it consists of carbon, hydrogen, nitrogen and oxygen, and has an elemental analysis of C62.82%, H 7.35%, N 4.88%; (2) Mol.wt. of 574; (3) M.pt. of 230 deg.C and (4) specific rotation (alpha)D20 of +137 deg. (c=1, chloroform).

The active cpd. can be prepd. by cultivation of FERM-P No. 4335 strain given in Japanese Patent application 086080/78.

In an example 1 pt. of the active cpd., 95 pts. of carrier, 2 pts. of surfactant and 2 pts. caking-preventing agent are mixed and pulverised to give wettable powder. When used it is diluted 20-2,000 times with water and then applied.

The active cpd. prevents crops such as tobacco, tomato and green pepper from infection with plant virus. It is not phytotoxic. (2pp)

KYOW ★ D16 63472 D/35 ★ J5 6087-594
Antibiotic XK-209 obtd. by cultivation of microorganism - of the chainia genus, contains l-threonine and l leucine units and is positive to the ninhydrin reaction

KYOWA HAKKO KOGYO KK 20.12.79-JP-164832
B04 (16.07.81) A61k-35/74 C07g-11 C12p-01/06

20.12.79 as 164832 (140NS)

New antibiotic XK-209 has the following properties: 1) M.Pt. : 165-170 deg.C (decompsn.), 2) Elementary Analysis: C : 51.85%; H 6.72%; N 12.76%, 3) Mol.Wt. : Ca. 660, 4) Specific rotatory power : -40 deg.C (c is 0.1, H₂O), 5) UV spectrum : Given 6) IR spectrum : Given, 7) Hydrogen NMR spectrum : Given and 8) Urea NMR spectrum : Given.

The antibiotic is a white powder, soluble in water, methanol; insoluble in ethyl, acetate, chloroform, n-hexane, in Silica Gel TLC gives Rf 0.13 (chloroform:methanol:conc. aq. ammonia : 1:1:1 v/v).

Liquid cultivation, partic. submerged shake culture is suitable. The cultivation is pref. conducted aerobically at 25-40 deg.C (27 to 30 deg.C), at pH 4-10 (5-9) for 2-5 days. XK-209 is pref. recovered from the culture by recovering the microorganism metabolite. For example, the culture is filtered using a filter aid (e.g. diatomaceous earth). The culture filtrate is passed through a column of activated carbon and eluted with aq. acetone. The XK-209 contg. fractions are collected, conc. and subjected to column chromatography to increase purity and finally the aq. soln. is liophilised. (8pp)

GODO ★ D16 63473 D/35 ★ J5 6087-595
Herbimycin B prepd. by cultivating Streptomyces microorganisms - has pre/emergent herbicidal activity

GODO SHUSEI KK(KITA NISC) 20.12.79-JP-164842

B04 C03 (16.07.81) A01n-63/02 C07g-11 C12p-01/06 C12r-01/46

20.12.79 as 164842 (108WB)

New physiologically active substance Herbimycin having the mol formula C₂₈H₃₈N₂O₈ has the following properties. Specific rotation (alpha)D₂₅ = +109 degrees (c/1, chloroform); and gives UV, IR and PMR spectra.

Prepn. of Herbimycin B comprises culturing a strain belonging to the genus Streptomyces in a medium contg. carbon source, nitrogen source, inorganic salts and vitamins under aerobic conditions, accumulating Herbimycin B in a culture liquid and then recovering this cpd. Herbicide containing as active component Herbimycin B; and a plant virus disease controlling drug contg. as active component Herbimycin B, are also claimed.

The active cpd. shows the herbicidal effect and germination inhibiting effect, and can control broad leaf weeds. The active cpd. is effective in the treatment and prevention of infection by plant viruses. (7pp)

SHIO ★ D16 63474 D/35 ★ J5 6087-596
Antibiotic octapeptin D - prepd. by cultivating Bacillus gp. no. JP-301

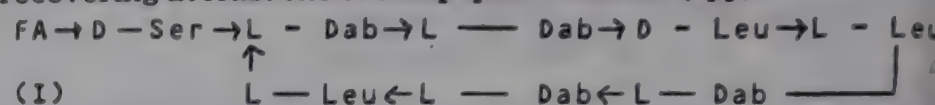
SHIONOGI KK 18.12.79-JP-165150

B04 (16.07.81) A61k-35/74 C07g-11 C12p-01/04

18.12.79 as 165150 (140WB)

Antibiotic octapeptin D consisting of octapeptin D1, octapeptin D2, octapeptin D3 and octapeptin D4 of formula (I) and its pharmaceutically acceptable salts are novel. FA is fatty acid. For D1 FA is beta-hydroxyanteisoundecanoic acid; for D2 beta-hydroxyundecanoic acid; for D3 beta-hydroxydecanoic acid; and for D4 beta-hydroxyundecanoic acid.

Prepn. comprises cultivating an octapeptin D-producing microorganism belonging to the genus Bacillus, specifically Bacillus sp. No. JP-301 (FERM-P 5003), in a medium and recovering at least one of octapeptin D1 to D4. (6pp)



GANK- ★ D16 63475 D/35 ★ J5 6087-60
Recombinant contg. transcriptase genes - where vector DNA is inserted in DNA contg. reverse transcription enzyme gene obtd. by cutting DNA of warm-blooded vertebrates

GANKENKYUKAI ZH 19.12.79-JP-164017

B04 (16.07.81) C07h-21 C12n-15 C12p-19/34

19.12.79 as 164017 (69RH)

Novel recombinant contg. reverse transcriptase genes are claimed where vector DNA is inserted in DNA contg. reverse transcription enzyme gene obtained by cutting DNA of warm-blooded vertebrate animal as DNA donor.

Vector DNA may be phage DNA. Phage DNA may be one where colibacillus is host. DNA of warm-blooded vertebrate animal as DNA donor may be DNA of normal and virus-infected tissue or cells. Novel recombinant of this invention may be used for prodn. of a large scale of reverse transcription enzyme genes at low cost by propagating in bacteria e.g. Bacillus Coli (Escherichia coli). (10pp)

MATU ★ D16 63522 D/35 ★ J5 6087-85
Enzymic electrode for measuring fructose concn. - comprising mannitol dehydrating enzyme fixed to current collector

MATSUSHITA ELEC IND KK 18.12.79-JP-165047

E17 J04 (D17) (16.07.81) G01n-27/30 G01n-33/02

18.12.79 as 165047 (117DS)

The concn. of fructose present in a soln. is measured by a method in which fructose is reduced chemically by means of D-mannitol dehydrating enzyme with or without its auxiliary reductase enzyme which are fixed to a current collector and a change in the concn. of said auxiliary reductive enzyme taking part in the reaction is measured electrochemically.

D-mannitol-dehydrating enzyme(DMDH) extracted from Leuconostoc mesenteroides and reductive nicotinamideadenine dinucleotide(NADH) as an auxiliary enzyme are fixed to a disc shaped carbon current collector as an electrode with the aid of a bifunctional cross-linking reagent, e.g., glutaric aldehyde, imine ester, etc., and the electrode is built in an electrode holder which is in turn put in a measurement system for fructose concn.

This method can measure the concn. of fructose present in foods rapidly and selectively, either quantitatively or qualitatively. (4pp)

NIPT D16 86817 A/48 = J8 1032
Yeast prepn. from Candida, Hansenula, Saccharomyces str etc. - using Steffen's filtrate as carbon and nitrogen source and culturing aerobically

NIPPON TENSAI SEITO KK 30.03.77-JP-034386

(D15 D17) (30.07.81) *J53121-989 + C12n-01/16 C12r-01/64

30.03.77 as 034386 (5AS)

The method comprises concg. Steffen's filtrate to ferment sugar content 1.0-2.5 w/v%, adding phosphorus source 0.021-0.05 w/v% as PO₄3(-) to the concn., culturing osmophilic yeast strains selected from Rhodosporidium, Candida, Hansenula, Kluyveromyces and Saccharomyces, aerobically and collecting yeast body.

Steffen's filtrate is obtd. by saturating CO₂ gas in Steffen's waste and removing formed CaCO₃. The growth of yeast can be further improved by using conc. Steffen's filtrate having a sugar content 10 w/v%. Examples of strains are Rhodosporidium toruloides IFO 0559, Candida albicans IFO 0579, Hansenula anomala IFO 0118, Candida claussenii IFO 0759, Kluyveromyces fragilis IFO 1090, Saccharomyces rouzii AHU 3164, etc.

The yeast body can be prepd. in high yield. BOD of Steffen's filtrate can be decreased. (J53121989) (5pp)

TOYJ D16 84585 A/47 = J8 1032
Culturing Pseudomonas viscogena in a medium contg. methanol as major carbon source to form prod. contg. protein, nucleic acid and vitamin(s) etc.

TOYO SODA MFG KK 25.03.77-JP-032280

(30.07.81) *J53118-585 + C12n-01/32 C12r-01/38

25.03.77 as 032280 (5AT)

The method is characterised by culturing methanol-utilising bacteria of Pseudomonas viscogena (I) in culture medium containing methanol as the major carbon source and collecting the bacterial body from the cultured liq. (I) is the novel bacterial

contains protein, nucleic acid, vitamins, coenzyme, etc. and can be used as feed or as the industrial material.

The culture is practiced at 20-42 pref. 25-38 deg.C at pH 5-9 pref. 5.5-7.5 aerobically by shaking culture or submerged culture. It is pref. to keep methanol concn. 0.5-3 w/w% for attaining good growth and good multiplication of the bacteria. The culture can be practiced either continuously or in batches. (J53118585) (3pp)

NATW D16 63117 Y/36 = J8 1032-913
Recovering lipase rich fractions from pancreatic tissue - by blending with a mixt. of (halogenated) hydrocarbon and alcohol then pptn. with acetone

NATTERMANN A & CIE GMBH 15.04.77-DE-716719 (07.05.76-DE-620289)

B04 (30.07.81) *BE-854-312 A61k-37/54 + C12n-09/20

04.05.77 as 050825 (1251NS)

Preparations rich in lipase are prepd. from pancreatic tissue by first autolysing and defatting the minced tissue with a solvent mixt. comprising 80-95 vol.% of a halogenated hydrocarbon (Ia) or aliphatic or aromatic hydrocarbon (Ib), plus 5-20 vol.% of a water immiscible 4-6C alcohol. (Ia) has density to 1.3 and (Ib) density 0.655-0.88 and both have b.pt. at normal press. 47-130 deg.C.

The solvent treatment is at 15-20 deg.C for 12-40 hrs. using (Ia) or at 15 deg.C for 4 hrs. using (Ib), then the central emulsion layer contg. the tissue water is separated from the top and bottom layers. The enzymes are pptd. from the emulsion with acetone, then dried.

Used for treating digestive disorders. Since autolysis and defatting are now done in a single stage the method is simpler and quicker. The concn. of enzymes in the prod. is increased and the ppte. is recovered in the required particle size. (J52154592) (6pp)

AIDA/ D16 81733 B/45 = J8 1032-915
Fermentative prodn. of coenzyme/Q-10 - by culturing fungi of genera e.g. *Cryptococcus*, *Rhodotorula*, *Sporobolomyces*, *Oosporidium*, *Aspergillus* etc.

AIDA H 20.03.78-JP-031098

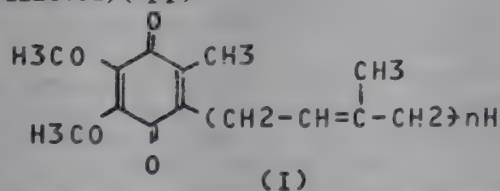
B05 (30.07.81) *J54126-792 C12p-07/66 + C12r-01/88

20.03.78 as 031098 (69AT)

Prodn. of coenzyme Q10 comprises culturing fungi of *Cryptococcus*, *Rhodotorula*, *Sporobolomyces*, *Torulopsis*, *Sporidiobolus*, *Oosporidium*, *Aspergillus* and *Cledosporium* genus in culture medium contg. isopentenol to yield coenzyme Q10 and taking out the substance.

Coenzyme Q of formula (I) is 2,3-dimethoxy-5-methyl-1, 4-benzoquinone having isoprene side chain at 6-position of quinone ring. The substance is contained widely in animals and vegetables and in microbes and plays important role as a component in terminal electron transport system. Coenzyme Q has excellent pharmacological action and physiological action on various diseases.

Coenzyme Q10 (n is 10) is most valuable as a pharmaceutical for human beings. (J54126792) (5pp)



AIDA/ D16 11619 C/07 = J8 1032-916
Coenzyme/Q prodn. - by culturing a *Pseudomonas* microorganism, pref. *P. schuylikillensis*

AIDA H 29.05.78-JP-063382

B05 (30.07.81) *J55000-028 C12p-07/66 C12r-01/38

29.05.78 as 063382 (69AS)

Coenzyme Q10 is produced by culturing a Q9-producing *Pseudomonas* microorganism in a culture medium contg. added isopentenol and/or geranol and then recovering the prod.

The microorganisms are pref. *P. schuylikillensis* IAM 1092 or IAM 1126. The prod. is active against various diseases and plays an important role in terminal electron transmission in living organisms. (J55000028) (3pp)

AJIN D16 24726 B/13 = J8 1032-918
Inosine-5'-mono:phosphoric acid prepn. - by culturing *Bacillus* bacteria, useful as seasoning etc.

AJINOMOTO KK 20.07.77-JP-086961

B02 E11 (D13) (30.07.81) *J54023-194 + C12p-19/32 C12r-01/07

20.07.77 as 086961 (5AT)

The method comprises culturing *Bacillus* bacteria which has requirement for adenosine and xanthine, and is resistant to methioninesulphoxide, cichoflanin, decolinin or sulphaguanidine

in culture medium and collecting inosine-5'-monophosphoric acid (I) accumulated in the culture medium.

(I) useful as seasoning, etc. can be prepd. efficiently. Examples of strains are *Bacillus subtilis* AJ 11154 (FERM-P 4116), *B. subtilis* AJ 11155 (FERM-P 4117), *B. subtilis* AJ 11156 (FERM-P 4118), *B. subtilis* AJ 11157 (FERM-P 4119) and *B. subtilis* AJ 11158 (FERM-P 4120). The culture is practised at 24 deg.C at pH 4-8 aerobically for 1-5 days. (J54023194) (3pp)

YAMS D16 64923 B/36 = J8 1032-919
L-Lysine-alpha-oxidase prodn. from *Trichoderma viride* - for L-lysine enzymatic determination e.g. in clinical diagnosis or food analysis

YAMASA SHOYU KK 22.09.78-JP-115867

B04 S03 (D13) (30.07.81) *DE2906-737 C12p-17/12 C12q-01/26 C12r-01/88 + C12p-13

22.09.78 as 115867 (280AS)

L-Lysine-alpha-oxidase (I) is a new enzyme which (a) produces alpha-keto-epsilon-aminocaproic acid, ammonia and H₂O₂ from L-lysine by oxidative deamination in the presence of water and O₂; (b) has a very low Michaelis constant; and (c) has a very high substrate specificity for L-lysine.

(I) can be used for the enzymatic determination of L-lysine, esp. in the determination of the L-lysine content of foods and beverages and in the diagnosis of lysine-uraemia or hyperlysinaemia, such determination can be based on measurement of the amt. of alpha-keto-epsilon-aminocaproic acid or H₂O₂ formed during the enzymatic reaction or the amt. of O₂ consumed during the enzymatic reaction. (J55043409) (14pp)

SEIS- D16 37739 B/20 = J8 1032-920
Reagent for quantitative hydrogen peroxide determ. - contains fluorescein deriv.-cyclodextrin complex and peroxidase, for urine or serum samples

SEISHIN SEIYAKU KK 13.09.77-JP-109409

A89 E36 J04 (S03 S05) (30.07.81) *J54043-791 G01n-31/22 + C12q-01/28

13.09.77 as 109409 (90HM)

Quantitative reagent for H₂O₂ contains (a) fluorescein deriv. cyclodextrin complex and (b) peroxidase as the effective ingredients and also pref. (c) oxidase. Determn. of H₂O₂ comprises measuring the intensity of the fluorescence of the fluorescent substance which is produced by reacting H₂O₂ with the reagent.

Pref. (c) is uricase, cholesterol oxidase, sarcosine oxidase or glucose oxidase. The ingredient (a), (b) and (c) are reacted with H₂O₂ in an arbitrary order.

By adding cyclodextrin to fluorescein deriv., the latter is markedly stabilised; the fluorescence which is produced by reacting the fluorescein deriv. with H₂O₂ is also stabilised; and the blank value is lowered. (J54043791) (13pp)

TOYJ D16 30710 B/16 = J8 1033-072
Bacterial body prep. - by culturing bacteria of *Pseudomonas* bella in culture medium contg. water soluble carbon source

TOYO SODA MFG KK 10.08.77-JP-094928

(31.07.81) *J54032-689 + C12n-01/32 C12r-01/38

10.08.77 as 044928 (5AT)

The method comprises culturing the bacteria of *Pseudomonas* bella in the culture medium contg. water soluble source and recovering bacterial body from the culture medium. The bacterial strain can grow at relatively high temp. of ca. 40 deg.C and the bacterial body can be produced effectively.

The applicable bacterial strain is *P. bella* TS-1008 (FERM-P 4074). As water soluble C source mono-hydric alcohol poly-hydric alcohol etc., sugar, fatty acid, etc. can be used. (J54032689) (4pp)

TOYJ D16 43125 B/23 = J8 1033-073
Prodn. of bacterial body useful as feed etc. - by culturing strain of *Pseudomonas* flavomethanophila in medium contg. methanol as carbon source

TOYO SODA MFG KK 05.10.77-JP-119087

C03 (D13) (31.07.81) *J54052-786 + C12n-01/32 C12r-01/38

05.10.77 as 119087 (5HM)

The method comprises culturing the bacterial strain of *Pseudomonas* flavomethanophila in the culture medium contg. methanol as the major carbon source and recovering the bacterial body from the culture medium.

The novel bacterial strain can multiply efficiently utilising methanol and is named *P. flavomethanophila* TS-1009 (FERM-P 4200). Thus prepd. bacterial body contains proteins, nucleic acids, vitamins, coenzymes, etc. and can be used as feed, industrial material etc.

Pref. methanol concn. in the culture medium is below 7.0 (0.5-5) w/w%. The culture is practiced aerobically at 5-35 (20-30) deg.C at pH 5-9 (6-8). (J54052786) (3pp)

SAOC D16 87670 A/21 = J8 1033-074
Methanol katabolisable marine *Methylomonas* bacteria prepn. - by culturing bacteria aerobically on medium contg. methanol as major carbon source

SANRAKU OCEAN 25.09.76-JP-114414
(31.07.81) *J53041-483 + C12n-01/38 C12r-01/26

25.09.76 as 114414 (52DJ)

Prepn. of a methanol katabolisable marine bacterial organisms comprises aerobically culturing MeOH katabolisable marine bacteria of *Methylomonas* on a medium contg. MeOH as major carbon source and greater than, above 0.5 (w/v)% Na ion (amt. calculated in terms of NaCl), and recovering the organism. Pref. the bacteria is *Methylomonas methylomarina*. In preparing the culture medium contg. Na ion, sea water is used.

Proteins are produced by microorganisms from cheap raw material, e.g. MeOH. The bacteria isolated can katabolise MeOH and grow on a medium prepd. from sea water. Three kind of strains of *Methylomonas* (*Methylomonadaceae*): *Methylomonas methylomarina* YK-2004 (FERM-P 3622), YK-4033 (FERM-P3624) and YK-2019 (FERM-P 3623) isolated from the soil, sand or mud near or in sea can katabolise MeOH and MeNH₂ but not methane and HCOOH. (J53041483) (8pp)

MITU D16 58954 X/31 = J8 1033-075
Insoluble glucose isomerase mfr - preventing redn. in enzyme activity during reaction

MITSUBISHI CHEM IND KK 16.12.74-JP-144199

B04 (31.07.81) *J51070-871 + B01j-49 C12n-09/92 C12n-11

16.12.74 as 144199 (AS)

An insoluble glucose isomerase prepn. is produced by carrying out enzymatic reaction by use of an insoluble enzyme prepn. produced by adsorption of glucose isomerase on an anion exchanger, desorbing the glucose isomerase and other adsorbed materials by treatment of the deactivated enzyme prepn. with an aq. electrolytic salt soln. and an aqs. acid soln. and adsorbing new glucose isomerase on thus collected anion exchanger.

Examples of the electrolytic salt are alkali metal chlorides and sulphates, e.g., sodium chloride, potassium chloride and sodium sulphate. Examples of the acid, are mineral acids, e.g. hydrochloric acid and sulphuric acid. Temp. of regeneration is 50-80 deg. C. Conc. of the aq. electrolytic salt soln. is at least 0.2 mole when the exchanging radial is tert. amine and at least 0.5 mole when it is quat. amine. (J51070871) (3pp)

JAAT D16 08032 Y/05 = J8 1033-076
Prodn. of immobilized enzyme enclosed in porous polymer - by adsorbing on an adsorbent, adding monomer, and polymerizing

JAPAN ATOMIC ENERGY RES 23.07.75-JP-089207

A96 B04 (A14) (31.07.81) *DE2633-259 + C08f-02/44 C08f-120/28 C12n-11

23.07.75 as 089207 (280HM)

The enzyme or enzyme-contg. cells in an aq. medium are adsorbed on an adsorbent (A) which is an inorganic natural earth, a synthetic inorganic adsorbent, active charcoal, or a natural or synthetic, amorphous, adsorbent, carbohydrate or polypeptide. The dispersion thus obtd. is mixed with at least 1 polymerisable monomer (B), which is a cpd. of the formula (I) or (II). CH₂=CX-CO-O-(CH₂)_n-OH (I) or CH₂=CX-CO-O-(R₁O)_m-R₂ (II). In the formulae R₁ is -CH₂CH₂- or -CH(CH₃)CH₂-; R₂ is H, CH₃ or CH₂=CX.CO-; X is H or CH₃. n is 2, 3 or 4; and m is 2-20. The monomer in the resulting mixt. is polymerised to form a water-insol. polymer material enclosing the enzyme or enzyme-contg. cells.

Enzymes are used for catalysing reactions in e.g. the food and pharmaceutical industries. The new immobilisation process gives prods. with long-lasting catalytic activity which can readily be sepd. off from reaction systems and re-used. (J52015885) (6pp)

JAAT D16 08032 Y/05 = J8 1033-077
Prodn. of immobilized enzyme enclosed in porous polymer - by adsorbing on an adsorbent, adding monomer, and polymerizing

JAPAN ATOMIC ENERGY RES 23.07.75-JP-089209

A96 B04 (A14) (31.07.81) *DE2633-259 C12n-11 + C08f-02/44 C08f-120/28

23.07.75 as 089209 (280RH)

The enzyme or enzyme-contg. cells in an aq. medium is/are adsorbed on an adsorbent (A) which is an inorganic natural earth, a synthetic inorganic adsorbent, active charcoal, or a natural or synthetic, amorphous, adsorbent, carbohydrate or polypeptide. The dispersion thus obtd. is mixed with at least 1 polymerisable monomer (B), which is a cpd. of the formula (I) or (II). CH₂:CX-CO-O-(CH₂)_n-OH (I) or CH₂:CX-CO-O-(R₁O)_m-R₂ (II). In the formulae R₁ is -CH₂CH₂- or -CH(CH₃)CH₂-; R₂ is H, CH₃ or CH₂=CX.CO-; X is H or CH₃. n is 2, 3 or 4; and m is 2-20. The monomer in the resulting mixt. is polymerised to form a water-insol. polymer material enclosing the enzyme or enzyme-contg. cells.

Enzymes are used for catalysing reactions in e.g. the food and pharmaceutical industries. The new immobilisation process gives products with long-lasting catalytic activity which can readily be separated off from reaction systems and re-used.

In an example, alpha-amylase dissolved in phosphate buffer is adsorbed on powdered silica gel, 2-hydroxyethyl methacrylate is added to the resulting dispersion and polymerised. The resulting polymer gel is cut into small pieces and is then ready for use in enzymatic reactions. (J52015887) (6pp)

BOIT- D16 64290 U/43 = J8 1033-078
Microbiological degradation of polychlorinated diphenyls - using non-pathogenic bacteria

BOITEKNIKA INT INC (BIO) 07.04.72-US-242192

(D15) (31.07.81) *DE2317-436 + C12p-01/02 C12r-01/73

06.04.73 as 039961 (RP)

Microbiological degradation of polychlorinated diphenyl cpds. used as plasticisers, fire-inhibiting paints, hydraulic and heat-exchanger fluids, is effected by treatment with at least 1 non-pathogenic cellular substance-producing hydrocarbon-utilising strain of *Cladosporium cladosporioides* (esp. ATCC 20251), *Candida lipolytica* (ATCC 20255), *Nocardia globerula* (ATCC 21505) or *rubra* (ATCC 21508) or *Saccharomyces cerevisiae* (ATCC 20252) until polychlorinated diphenyl cpds. are decomposed.

Pref. microorganisms are mixed with a cellulosic material, e.g. sawdust, conifer bark, wood flour etc. and also with N- and P-sources. (J49006186) (6pp)

AJIN D16 78166 B/43 = J8 1033-079
Fermentative prodn. of L-tryptophan - by culturing a *Pseudomonas*, *alcaligenes* or *Flavobacterium* microorganism using carbon dioxide as carbon source

AJINOMOTO KK 08.03.78-JP-026407

B02 E13 (31.07.81) *J54119-091 + C12p-13/22 C12r-01/38

08.03.78 as 026407 (AT)

Fermentative prodn. of L-tryptophan comprises culturing a microorganism of genus *Pseudomonas*, *Alcaligenes* or *Flavobacterium* having ability to utilise CO₂ and H₂ and produce L-tryptophan in presence of CO₂ or carbonic ion, as C source, and H₂ and O₂, and recovering prod. accumulated in the culture medium. Pref. microorganism is a variant tolerant to tryptophan analogues or 5-methyltryptophan.

Process utilises CO₂ which is cheaper than conventional carbohydrate, methanol or benzoic acid used in known processes. In an example, *Pseudomonas hydrogenothermophila* FERM-P 3697, *Flavobacterium autotrophophilum* FERM-P 3698 and *Alcaligenes eutrophus* ATCC 17697 were used as the microorganisms. (J54119091) (3pp)

KOWA D16 28079 Y/16 = J8 1033-398
Antibacterial amino sugar deriv. prepn. - by reacting (N)-acyllividomycin B with periodic acid, reacting the prod. with amine, and opt. deacylating

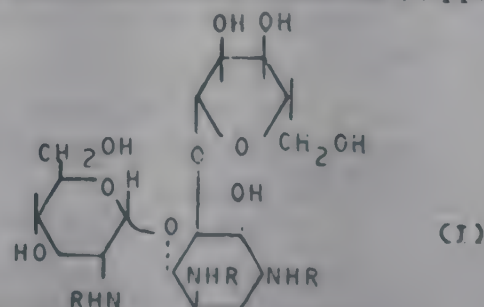
KOWA KK 03.09.75-JP-106031

B03 (03.08.81) *J52031-051 C07h-15/22 + A61k-31/71

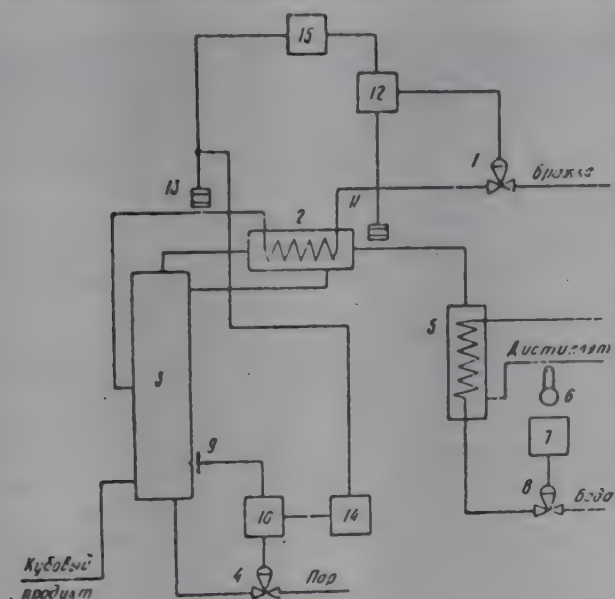
03.09.75 as 106031 (38NS)

The prepn. of amino sugar deriv. (I) comprises reacting N-acyllividomycin B with periodic acid, reacting the resultant dialdehyde cpd. with amine to eliminate the neosamine B-part followed by opt. deacylating. The periodate oxidn. is completed at room temp. for 5-30 hrs. in a solvent (water, and/or lower alkanol), pref. in the dark, whereby neosamine B is cleaved between 3- and 4-positions to give corresp. dialdehyde. Reaction of the dialdehyde and amine (e.g. phenylhydrazine or triethylamine) is carried out at room temp. 200 deg.C for 1-10 hrs. pref. in the presence of acid in the above solvent, or at room temp. for 1-10 hrs. In (I) R is H or acyl.

The starting material, lividomycin is the antibiotic produced by culturing *Streptomyces lividus* (previously named *quintomycin D*) and is effective to Gram-positive and negative bacteria, acid fast bacteria and esp. to *Pseudomonas*. The prod. (I) has antibacterial activity and is also useful as synthetic intermediate for other antibiotics. (J52031051) (4pp)



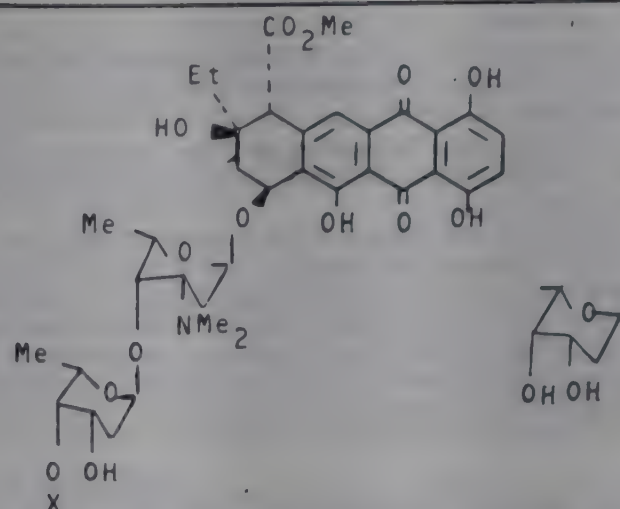
DPO = ★ D16 63626 D/35 ★ SU-785-354
 mash distn. appts. automatic control - by measuring alcohol
 concn. and varying parameters of regulators for mash and steam
 accordingly via functional units
KRASD POLY 23.01.79-SU-718800
 (10.12.80) C12f-01/04
 01.79 as 718800 (840GW)
 distilling appts. control by stabilising the concn. of the distillate,
 column bottom temp. and distillate temp. in dynamic regulation
 of the mash (12), water (7) and steam (10) regulators is made more
 accurate for application of automation when the alcohol concn. of
 the mash is widely variable. By measuring the alcohol concn. (13)
 and varying the parameters of the regulators for the mash and
 steam accordingly, the max. deviation of parameters and
 transient behaviour are reduced by a factor of 2-4. (3pp Dwg.No.1)



URE D16 43426 Y/25 = SU-786-855
 antioncogenic nitrogen-contg. polysaccharides - by extraction of
 basidiomycetes with an aq. solvent at elevated temp. and press.
KUREHA CHEM IND KK 18.12.75-JP-150114
B04 (07.12.80) *BE-849-476 A61k-35/70
 12.76 as 428806 (GW)

Polysaccharide antioncogenic nitrogen-containing substances
 are obtd. by extraction of fungi of the basidiomycetes class (esp.
Coriolus and *Lentinus*) with an aq. solvent, under press.
 ref. 1.8-20 kg/sq.cm.) at 120-200 deg.C. The extn. period
 generally varies between 5 and 360 mins. and the aq. solvent is
 usually water or a dilute alkaline soln. of less than 1 normality.
 The polysaccharides have excellent antioncogenic activity.
 They inhibit sarcoma-180 in mice, not only when administered,
 but also by oral administration. They stimulate immune
 responses, avoiding secondary effects of chemiotherapeutic
 treatment, giving increased sensitivity to radiotherapeutic
 treatment, combat diminution of physical resistance of patients
 after surgery or blood transfusions and increase resistance to
 viral and bacterial infections. They also improve hepatic
 function and appetite, soothe intestinal disorders and stimulate
 biliary secretion. They are also effective against leprosy.
 Known methods of extraction under normal pressure give only
 low yields of antioncogenic substances, wasting valuable prods.
 Bul. 45/7.12.80. (5pp)

MITB D16 57458 Y/32 = SU-786-914
 musettamycin and marcellomycin antibiotics - are obtd. by
 cultivation of *Actinosporangium* sp. ATCC 31127
BRISTOL MYERS CO 15.04.76-US-677480
B03 (09.12.80) *US4039-736 C12d-09
 04.77 as 469957 (GW)
 Antibiotics musettamycin and marcellomycin of formulae (Ia)
 and (Ib), respectively, and their salts, have been prepd. (where (a)
 is H; or (b) X is gp. of formula (II).
 Used as antimicrobials and antitumour agents, e.g. effective
 against Walker 256 carcinoma in the rat and lymphatic
 leukemias in the mouse. Dose: 2.5-10 mg./sq.metre in a mammal
 as a single intravenous injection of (Ia) as an antitumour agent.
 In an example, (Ia) and (Ib) were obtd. from the bohemiac acid
 complex produced by cultivating *actinosporangium* sp. ATCC
 127 in a nutrient medium. (8pp)



KAKY D16 51270 B/28 = SU-786-915
 Straight chain peptide type antibiotics K 582 M - useful as
 antimicrobials, antitumour agents, interferon inducers etc.

KAKEN YAKU KAKO KK 28.12.77-JP-157416
B04 C03 (07.12.80) *GB2011-425 C12d-09

28.12.78 as 704455 (GW)

Straight-chain peptide-type antibiotics K582 M (I) are new. They
 consist of 1 arginine, 1 threonine, 1 tyrosine, 2 ornithine, m
 hydroxyarginine and n lysine residues (esp. where m and n are 1
 or m is 2 and n is 0). Cultivation of *metarhizium anisopliae* ATCC
 20500 in a nutrient medium gives a mixt. of the K582M antibiotics.
 The prod. is isolated and then sepd. into the components by ion-
 exchange, chromatography etc. 582M-A, as HCl salt, analyses for
 C39.35, H 7.24, N 18.03, Cl 14.83. Similarly for K582-B, as HCl salt,
 the values are 36.25, 6.61, 18.62 and 14.06, respectively. Molecular
 wts. are respectively 1200-1300 and 1200-1220, and m.pts. are
 respectively 192-8 deg.C. (dec) and 197-203 deg.C. (dec.).

(I) are antimicrobials esp. effective against fungi and yeasts,
 with antitumour activity and they confer or inhibit immunity in
 the mammal and are also interferon inducers. Bul. 45/7.12.80.
 (7pp)

KURE D16 26299 Y/15 #SU-786-916
 Microbial food prepd. by culturing *Methylomonas probus* - in
 medium contg. methanol as carbon source

KUREHA CHEM IND KK 29.08.75-JP-104093 (28.02.77-SU-459353)

(D13) (07.12.80) *J52028-988 C12d-13/06
 28.02.77 as 459353 (70VE)

Animal feed grade biomass, is obtd. by cultivating bacterial
methylomonas strain in a nutrient medium contg. methanol as a
 carbon source, a nitrogen source and necessary salts, with
 aeration and subsequent sepn. of the biomass by the known
 method. The protein content of the biomass is increased by using
 strain *Methylomonas probus* FERM-P No. 3193 at 35-37 deg.C. and
 pH 6.3--7.

The concn. of methanol in the nutrient medium is pref. up to 4
 vol.%. The aeration is pref. increased from 40 l/20 l/min to 60 l/20
 l/min. The cultivation is continued pref. at 10 l/20 l/min, or 20
 l/20 l/min. or 40 l/20 l/min, or 60 l/20 l/min, or 80 l/20 l/min., or
 100 l/20 l/min. The protein content in the cells is 80%. Bul.
 45/7.12.80. (5pp)

MITB D16 58413 Y/33 #SU-786-917
 Single cell protein and fat mfr. by cell cultivation - using medium
 of vegetable starch liquefied by amylase

MITSUI SHIPBUILDING ENGG 24.12.75-JP-154368 (23.06.77-SU-497850)

(D13) (07.12.80) *J52079-084 C12d-13/06
 23.06.77 as 497850 (70VE)

Biomass of microorganisms, is produced by growing yeasts in a
 nutrient medium contg. a starch-rich material preliminarily
 subjected to amylolytic enzyme hydrolysis.

The yield of the biomass is increased by subjecting the
 material, before the fermentation, to liquefaction by addition of
 the dextrinogenic enzyme alpha-1-4-glucan-4-glucan-hydrolase
 obtd. from a culture of *Bacillus subtilis* var *Biotecus*. The yeasts
 grow directly during the enzymic hydrolysis process. (5pp)

DZHA = ★ D16 63661 D/35 ★ SU-786-955
 Liquid baker's yeast culture prodn. - from leaven soured with
 specified lactic flora bacteria with addition of saccharified
 wheat flour infusion

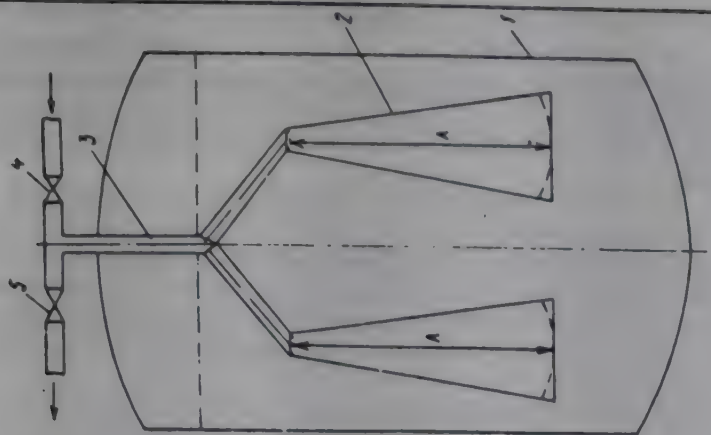
DZHAMBUL LIGHT FOOD 05.01.79-SU-719512
 (D11) (15.12.80) A21d-08/04

25.01.79 as 719512 (70VE)

Liquid baker's yeasts culture is obtd. by mixing f033 flour with

D16

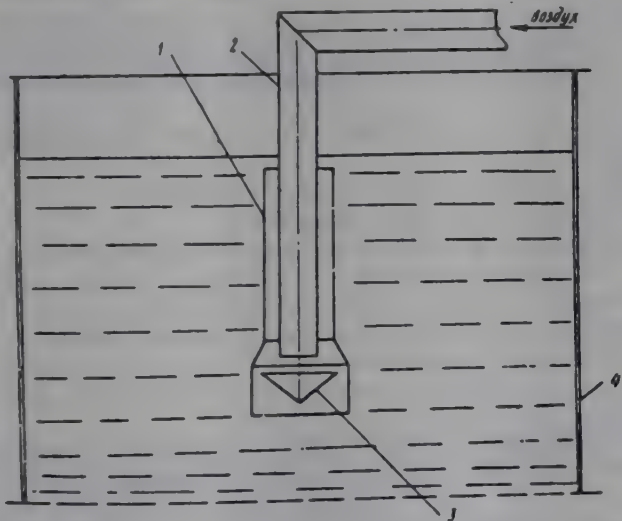
During the expansion of the chamber in the fermenter evolved gas-liquid emulsion is removed from the interface phases. In the period of contraction a fresh non-aerated liquid is fed to the interface, the process controlled by valves 4/5. The liquid is admitted to the conical partitions 2 for expanding the volume and shifting down the interface between the gas and liquid.



AUTE = ★ D16 63799 D/35 ★ SU-787-458
Microorganisms culture foam breaker - has pipe coaxially fitted inside shell above conical insert forming gas bubbles
 AS UKR TECH HEAT PH 07.04.76-SU-346800
 (17.12.80) B01d-19/02 C12b-01/08
 07.04.76 as 346800 (89WD)

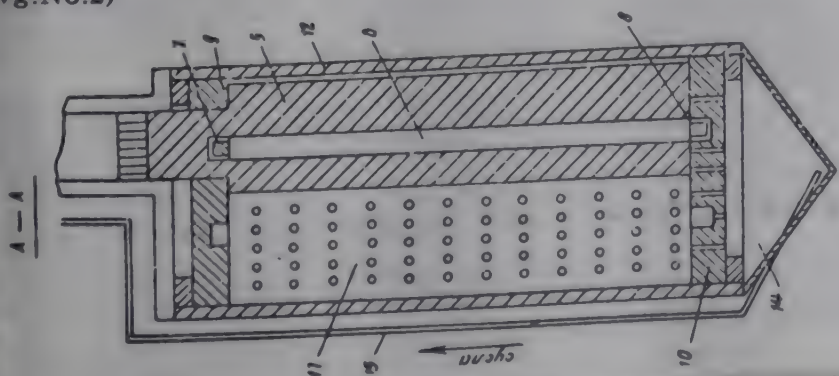
Intensified foam breaking during microorganisms culture is ensured by a pipe set coaxially inside the shell. The resulting clearance w.r.t. the wall of the shell and the conical insert below the pipe control the flow.

The air is periodically fed into pipe 2 and impacts the conical insert 3 to form bubbles rising inside the shell 1. The bubbles force the liquid and act as a piston with the pushed liquid causing hydraulic shocks when the gas bubbles collapse on reaching the surface. Bul.46/15.12.80. (2pp)



AIGE = ★ D16 63802 D/35 ★ SU-787-466
Lorry held grapes sampler - has squeegee blade operating camshaft in perforated semi-cylindrical vessel
 AIGEZARDSK WINE WKS 07.02.79-SU-724916
 (17.12.80) C12g-01/02
 07.02.79 as 724916 (89WD)

Faster sampling of grapes from the lorry load and improved accuracy of determining the sugar content are due to sampler crankshaft in the semicylinder vessel with perforations. Additional units of similar design are attached to the movable frame featuring a hydraulic drive, while the actuators are connected to a timer and operate in synchronism with each other. The three samplers are lowered with the frame by the hydraulic drive and the timer switches on the actuators for turning the camshaft 5 which reciprocates blade 6. The latter picks up a bunch of grapes for pushing into the perforated semicylinder II for squeezing out the juice. The skin of grapes and stems remain intact while the juice flows down into the collector 14 operating under a vacuum. Bul.46/15.12.80. (4pp) (Wg.No.2)



EAST ★ D16 64084 D/35 ★ US 4283-382
Stabilised fluorescent label - contg. rare earth chelate and polymeric beads derived from loaded latex

EASTMAN KODAK CO 18.10.78-US-952424 (28.12.77-US-865274)

A96 B04 S03 (11.08.81) G01n-31 G01n-33/48
 18.10.78 as 952424 (1248BZ)

Aq. stabilised fluorescent label (I) comprises a fluorescent rare earth chelate (II) incorporated into polymeric beads derived from a loaded latex. The (I) contains up to 7.5% (II). The loaded latex has a polymeric discontinuous phase comprising polymer obtd. from ethenic monomer(s) and has an aq. continuous phase and shows no coagulation or settling out when 250 ml latex contg. 10-20% dispersed phase is stirred at 25 deg. C into an equal vol. of acetone over 1 min. and the mixt. is set aside at 25 deg.C for 10 mins.

The fluorescent quenching of (II) by aq. liqs. is eliminated when they are in the bead latices. They are useful for the prepn. of highly efficient proteinaceous reagents, by absorbing or covalently binding antigens, antibodies, plant lectins etc. on the surface of the beads. The labels have longer lives, so that e.g. time resolution for reducing background in fluorescence immunoassay systems and premature pptn. does not occur. (9pp)

MEIJ D16 32784 C/19 = US 4283-389
Antibiotic BN-183B prepd. by cultivation of Pseudomonas BN-183 - is active against Gram-positive and Gram-negative bacteria and has anticancer and antiviral activity

MEIJI SEIKA KAISHA 27.12.78-JP-159820
 B04 C03 (11.08.81) *BE-880-850 A61k-35

19.12.79 as 105442 (963HM)

Antibiotic designated BN-183B (I) is claimed, the hydrochloride of which is characterised e.g. by a mol. formula of $C_{14}H_{20}N_2O_6Cl_2 \cdot HCl$, a mol. wt. of 383, and has positive reactions to $FeCl_3$, Ninhydrin, and Fehling, but negative to Molish and biuret.

(I) may be obtd. by culturing e.g. *Pseudomonas* sp. BN-183 strain (FERM-P.No.3332; ATCC 31571).

(I) has strong inhibitory action on Gram positive and negative bacteria. It also has anticancer activity, and antiviral activity. (I) has LD50 in mice of 50 mg/kg (oral); 4.1mg/kg (intravenous; or intramuscular); 4.3 mg/kg (intraperitoneal); 6.0 mg/kg (subcutaneous). (7pp)

ELIL ★ D16 64088 D/35 ★ US 4283-390
Antibiotic A-39183 factor C, prepd. from Streptomyces sp. NRRL 12049 - esp. useful against penicillin resistant Staphylococcus and Streptococcus spp.

ELI LILLY & CO 01.11.79-US-090386
 B04 (11.08.81) A61k-35

01.11.79 as 090386 (1251BZ)

Antibiotic A-39183 factor C (I) is new. It is a yellow crystalline solid with the following characteristics: (a) analyses C 68.03%, H 4.78%, O 26.58%;

(b) has mass spectrometric mol. wt. 598;

(c) shows IR absorption max. (reciprocal cm) at 3498, 3420, 2970, 2930, 2861, 1971, 1717, 1701, 1623, 1599, 1585, 1452, 1414, 1367, 1335, 1312, 1261, 1223, 1172, 1151, 1122, 1086, 1041, 1011, 980 (Sh), 970, 955, 938, 905, 879, 870 (Sh), 851, 801, 781, 750 (Sh), 740, 692 and 666 (Sh indicates a shoulder);

(d) has UV absorption max. (in nm) in acidic or neutral methanol at 226 (44,200); 268 (55,600); 300 (Sh) (6,200); 310 (Sh) (5300); 327 (5,900) and 410 (13,800) and is basic methanol 229 (50,100); 226 (49,200); 328 (Sh) (11,000); 340 (11,900) and 420 (17,000); figures in parentheses are extinction coeffs.;

(e) is soluble in acetone, ethyl acetate, DMF, DMSO, tri-fluoroethanol and lower alkanols; sparingly soluble in benzene and toluene and insoluble in water; and (f) has approx. Ref value 0.46 in silica gel t.l.c. using 3:1 toluene-acetone as solvent.

The complex is obtd. by submerged aerobic cultivation of *Streptomyces* sp. NRRL 12049, pref. in a medium contg. 0.2-0.7 vol.% polypropylene glycol of mol. wt. 1200-2000 (this increased the yield by 100% and inhibits foaming).

(I) is an antibiotic effective against *Staphylococcus* and *Streptococcus* species resistant to penicillin. It is also active against some Gram-positive and -negative anaerobes, and is an ionophore (for use in Ca transport; Ca-Mg partitioning and to facilitate uptake of ferrous ions by mitochondria). (13pp)

UYSL- ★ D16 64089 D/35 ★ US 4283-391
Antibiotic paramycin from streptomyces alboniger ATCC 12461 - useful as inhibitor of DNA and RNA synthesis for antimicrobial use

UNIV ST LOUIS 16.07.79-US-057795 (30.11.78-US-964952)

B04 (11.08.81) A61k-35

16.07.79 as 057795 (1248AT)

Pamamycin (I) of formula C₃₆H₆₃NO₇ is new. It is defined by an n.m.r. spectrum contg. no exchangeable H atoms, a multiplet centered at about 0.9 ppm, indicating Me gps., and multiplets between 1.25-2.0 ppm and 2.0-2.75 ppm., showing that the bulk of the H is in methine and methylene gps., and a triplet at 1.1ppm, indicating loss of a Pr gp. It is characterised by an i.r. spectrum that is highly aliphatic and shows an absence of aromatic, OH and NH gps., and a peak indicating a CO gp. and no amide 1 and amide 2 stretch bands, indicating that the N present is as a tertiary linkage. Cpd. (I) is a potent inhibitor of both DNA and RNA synthesis, as shown by in vivo tests with Staph. aureus. It is active against Gram-positive bacteria and mycobacteria and it has broad antifungal activity. A 1% soln. is useful for degerminating hospital walls. (6pp)

REGC D16 80247 A/45 = US 4283-489
Purifying nucleotide sequences for insertion into microorganisms - by forming complementary DNA gps., enzymatic cleavage and fractionating the fragments
UNIV OF CALIFORNIA 23.09.77-US-836218 (23.11.79-US-097049)

B04 (11.08.81) *BE-868-853 C12q-01/68
23.11.79 as 097049 (964WB)
Measurement of purity of specific desired nucleotide sequence in preparation of DNA fragments of homogeneous length contg. the nucleotide sequence is described. There is at least one restriction site within the desired nucleotide sequence.

Method comprises (a) subjecting DNA prepn. to action of restriction endonuclease capable of catalysing the hydrolysis of the specific desired nucleotide sequence at the restriction site within the sequence, to produce identifiable sub-fragments; (b) sepg. the restriction endonuclease treated DNA sub-fragments according to length; and (c) measuring the amt. of the DNA prepn. identifiable as sub-fragments of the specific desired nucleotide sequence compared with the total amt. of DNA, thereby measuring purity of the specific desired nucleotide sequence. (13pp)

PLAK/ ★ D16 64127 D/35 ★ US 4283-490
Detecting low level bacterial concn. by luminescence - using optical filter between detector and sample to restrict wavelengths passed to below 400 nanometres
PLAKAS C J 11.10.79-US-083758 (31.01.77-US-764180)
(11.08.81) C12q-01/06

11.10.79 as 083758 C.i.p. 4144134 (+ 28.7.78-US- 928869) (478RH)
The method of detecting the presence of microbial luminescent reactive mols. (I) in a sample where the (I)-concn. is so low that the associated luminescent reaction is masked by the extraneous luminescent reactions of the reagents themselves in which: (a) the sample is placed close to an optical detector for detecting photon emission; (b) a reagent is added to the sample in an amt. which exceeds the min. necessary to cause luminescence of all (I) in the sample; and (c) the strength of luminescence during the reaction between the sample and the reagent is observed with the optical detector is improved by inserting an optical filter between the sample and the optical detector to allow only those photons of lambda less than ca. 400 nm to pass.

Insertion of the filter into the system allows the detection of reaction luminescence at levels below that of endogenous luminescence, and is thus useful for detecting very low levels of (I) (e.g. bacteria in milk). (7pp)

EAST ★ D16 64128 D/35 ★ US 4283-491
Analytical element including peroxidase in water permeable carrier - contains acrylic or styrene copolymer to stabilise peroxidase

EASTMAN KODAK CO 20.08.79-US-067843 (06.09.77-US-831204)
A96 B04 J04 (11.08.81) C12n-09/96 C12q-01/62
20.08.79 as 067843 (1302RH)

An element for analysis of a predetermined analyte in aqs. liq. comprises a carrier permeable to the aq. liq. and to the analyte. Reagents interacting with or facilitating interaction with the analyte or its reaction prods. to yield a detectable prod. are dispersed in the carrier. In such an element in which one of the reagents is peroxidase, 20-50 wt.% of a polymer is dispersed in the carrier. The polymer is a copolymer of 80-98 wt.% alkyl acrylate or methacrylate or styrene or subst. styrene, 1-20 wt.% acrylic or methacrylic acid or a sulphonic acid or a salt thereof or a sulphonate, sulphate, phosphate or phosphonate and 0-15 wt.% of a crosslinkable monomer contg. an active methylene gp.

Analysis of glucose or uric acid in wine or blood serum. The polymer stabilises the peroxidase. (7pp)

FUJI D16 04971 V/03 #US 4283-492
Antibiotics WS 3442 a,b,c,d and e - by culturing streptomyces wadayamensis

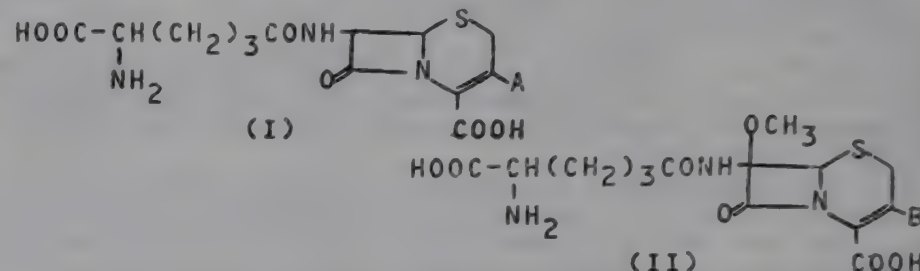
FUJISAWA PHARM KK 08.02.73-JP-016303 (21.06.73-US-371989)

B02 (11.08.81) *NL7308-948 C12d-09/14
13.06.78 as 915215 (918DJ)

Antibiotic WS-3442 A, B, C, D or E are prepd. by cultivating a strain of Streptomyces wadayamensis in aq. nutrient under submerged aerobic conditions until substantial antibiotic activity has been given to the medium. The antibiotic is then recovered from the medium.

WS-3442A has formula (I), (A is -CH₃), WS-3442B also has formula (I) (A is -CH₂OCONH₂) as does WS-3442E (A is -CH₂OH). WS-3442C has formula (II) (B is -CH₂OCONH₂) as does WS-3442D (B is -CH₃).

The acyl derivs. of the antibiotics can be prepd. by use of an acylating agent. The acyl derivs. have antimicrobiological activity and are useful intermediates in cephalosporin derivs. prepn. (20pp)



HOFF D16 27608 C/16 = US 4283-493
Antibiotic X-14766A obtd. from streptomyces strain NRRL 11335 - useful as antibacterial, antimalarial, anticoccidial and growth promoter

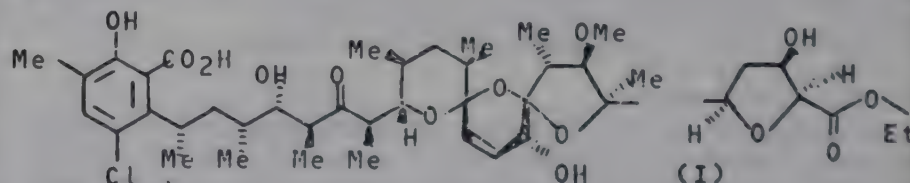
HOFFMANN-LA ROCHE INC 22.09.78-US-944825 (10.03.80-US-128992)

B03 C02 (11.08.81) *EP---9-636 C12p-17/18
10.03.80 as 128992 Div ex 4221724 (964WB)

Prod. of antibiotic X-14766A of formula (I) comprises cultivating a strain of Streptomyces X-14766A, NRRL 1135 in aq. carbohydrate soln. contg. nitrogenous nutrient under submerged aerobic conditions and isolating the antibiotic from the soln.

(I) has antibacterial activity and is used for control of surine dysentery, as antimalarial agent and as growth promotant for ruminants.

In an example, agar slant was inoculated with Streptomyces X-14766 culture and incubated at 28 deg.C for 7-14 days. A piece of agar contg. the sporulated culture was inoculated into flask including 100 mls. of sterilised inoculum contg. 5 g/l. tomato solids, 5 g./l. distillers solids, 5 g/l. peptone paste, 5 g/l. debittered yeast, 20 g./l. corn starch, 1 g/l. CaCO₃ and 1 g/l. K₂HPO₄. (8pp)



MEIT D16 48599 A/27 #US 4283-494
Lipase prodn. from Alkaligenes microorganism - giving a prod. which has optimum pH in alkali range, is activated by bile acids and can decompose fatty acid ester of cholesterol

MEITO SANGYO CO KK 05.11.76-JP-132391 (26.04.78-US-900234)

B04 S03 S05 (11.08.81) *J53059-093 C12n-01/20 C12r-01/05
26.04.78 as 900234 (918DJ)

New microbial lipase (I) has optional pH for activity of approx 9 + -0.5 and an optional temp. of 40-48 deg.C. It is activated by bile salts and has cholesterol esterase activity. Mol. wt. of (I) approx. 300,000-400,000.

Pref. (I) also has a lipoprotein lipase activity, and a cholesterol esterase activity of at least 300 U/g in the crude state and 6600 U/g in the purified state. Pref. (I) has an active inhibition of at least about 50% by sodium ascorbate in a concn. 10 power-2 mol and monoiodoacetic acid in a concn. of 10 power mol.

The new lipase has unique advantages, is not described in literature and when orally admin. will be activated with bile the intestine. (11pp)

ECT ★ D16 64129 D/35 ★US 4283-495
ells culture method - employs roller bottle with peripheral
errations which eliminate slip on drive roll
**BECTON DICKINSON CO 25.02.80-US-123957 (10.10.78-US-
949450)**
(11.08.81) C12n-05
5.02.80 as 123957 Div ex 4238568 (006KB)
ells are cultured in a roller bottle with its inner face adapted for
ell adhesion, and its exterior carrying one or more peripheral
errated portions engaged non-slip by drive roller.
Pref. each bottle has two or more serrated external rings.
pecifically three bottles are mounted pyramid-fashion on the
rive rolls, with their serrated rings in mesh. (4pp)

ETO ★ D16 64130 D/35 ★US 4283-496
biologically pure culture of *Flavobacterium arborescens* ATCC
358 - useful for cultivation to produce glucose isomerase activity
**REYNOLDS R J IND INC 19.09.77-US-834073 (20.10.76-US-
734222)**
(D17) (11.08.81) C12n-01/20 C12p-19/24
0.09.77 as 834073 Div.ex 4061539 (1248BZ)
biologically pure culture of the mutant *Flavobacterium*
arborescens ATCC 4358 is new. The strain is capable of producing
ucose isomerase activity when cultivated in a nutrient medium
ontg. sources C,N and inorganic salts, with lactose as sole C
ource.
The enzyme is useful for conversion of glucose to fructose and it
described in US 4061539 (der. 89794 Y/50). The enzyme is obtd. in
gnificant amts. from ATCC 4358. (4pp)

IRS/ ★ D16 64131 D/35 ★US 4283-497
icrobiological mixing and dilution device - has fluid amplifier
ith control chamber supplied with sample and diluent
HIRSHAUT Y 24.01.79-US-006005
(11.08.81) C12m-01/36
01.79 as 006005 (67AS)

The device comprises a fluid amplifier having a control chamber
with two inlet ports through which a fluid sample and a fluid
diluent are supplied to the chamber for mixing and two outlet
ports for selectively discharging the contents of the control
chamber. A control port fluidity coupled to the control chamber
uses a control fluid to direct a portion of the diluted sample to a
selected outlet port and a distributor receives the diluted sample
for microbiological use.

Used in a microbiological laboratory for diluting a sample and
applying it to a growth medium in a sterile condition. (18pp)

SCHL/ ★ D16 64132 D/35 ★US 4283-498
Biological specimen collection and transport appts. - has
specimen receptacle with cover for maintaining exterior free
from contamination

SCHLESINGER J D 29.10.79-US-089603
A96 (11.08.81) C12m-01/24

29.10.79 as 089603 (67BZ)

The appts. comprises an elongated specimen receptacle pref. of
polypropylene having an open top for the introduction of the
specimen through a detachable conduit. The receptacle is
supported on a base which maintains it in a vertical position. A
flexible outer protective cover, e.g. a polyethylene film, encloses
the receptacle to maintain the exterior of the receptacle free
from contamination during the specimen collection process.

Used for collecting spatium specimens for analysis in cases of
pulmonary infections. The protective cover ensures that on
individual handling the receptacle will not become infected by
the specimen or spread the infection. (14pp)

See Also

D13 DE 3005642	D13 FR 2473313	D17 J8 1032917
D21 GB 2069499	D21 GB 2069501	D23 J8 1032898

D17: SUGAR; STARCH

ARK ★ D17 62628 D/35 ★EP --33-995
aping cubes from granular material - using stepwise rotatable
ble having shaping pockets which receive plungers
STORK BEPAK BV 06.02.80-NL-000736
P71 (19.08.81) B30b-11/10 C13f-03/02
02.81 as 200141 (1044HM) (E) No-Citns. E(BE DE FR NL SE)
opts. for shaping cubes from granular material comprises a
ling device for granular material, a shaping and delivery table
atable in a horizontal plane having pockets for shaping cubes
d ejecting plungers fitting into the pockets, and a counter
essure block located at a point of compression of the material.
The table cooperates with at least two stationary counter
essure blocks which can seal off the upper side of a group of
aping pockets. The blocks and plungers form pressure units.
parate drive mechanisms are provided for carrying out
essure strokes and filling operations.
Used for shaping cubes from moist crystallised sugar. A
mplete mfg. cycle can be performed in an arc of 180 deg. or less
hich enables at least a doubling of the productive capacity of the
pts. During pressing operations deflective loads upon span
rs are prevented. There is hardly any bending stress on the
epwise revolving table. (18pp)

SA/ ★ D17 D/35 ★IT 1051-228
lter for sugar prodn. solns.
PISANO F 07.09.67-IT-007277
J01 (21.04.81) B01d

ATL D17 51675 A/29 = J8 1032-917
polysaccharide(s) prepd. by culture of *Azotobacter vinelandii* -
ding a proteolytic enzyme to prevent viscosity fall
TATE & LYLE LTD 14.03.77-GB-010695
(D16) (30.07.81) *BE-864-823 C12p-19/04 C12r-01/06
03.78 as 029774 (597NS)
process for the prepn. of a polysaccharide by culture of a
lysaccharidogenic strain of *Azotobacter vinelandii* in an
propriate nutrient medium comprises controlling the viscosity
the polysaccharide soln. produced by incorporating in the
ture broth, during and/or after the culture, a proteolytic
zyme having a proteolytic activity at the pH of the broth.
The prods. are microbial alginates and have the same uses as

degradation of the polysaccharide with resulting loss of viscosity
and, as a result, the commercial value of the product. (J53113854)
(6pp)

PISH= ★ D17 63625 D/35 ★SU -785-353
Starch-contg. material steaming control in alcohol prodn. - by
setting steam flow according to actual temp. and flow-rate of
grain and water mix and actual and set temp. of mass after
contact head

PISHCHEPROMAVTOMATI 01.11.78-SU-682076
T06 X25 (10.12.80) C12c-07/04

01.11.78 as 682076 (840GW)

Controlled steaming of starch-contg. material involves
measuring actual temp. of the mass after the secondary- heating
contact head and regulating the steam supply by a valve. The
process is used in prodn. of alcohol. The steam flow-rate setting
is defined in relation to the actual temp. and flow-rate of the
water/grain mix and the actual and set temp. of the mass after
the head; the steam flow is regulated according to any mismatch
between the instantaneous and set flow-rate of the steam.
Considerable fuel savings are made. Bul. 45/7.12.80 (3pp)

SUSO D17 80301 V/46 = SU -786-904
Ion exchange recovery of xylose or xylitol from pentose mixts. -
resulting from acid hydrolysis of pentosane contg. raw material
SUOMEN SOKERIOY 25.04.73-US-354391
A91 E13 (07.12.80) *NL7405-506 C07h-03/02 C13k-13
13.10.75 as 023495 (938GW)

Prod. of xylose from pentosan-contg. raw material (pref.
lignocellulose-based material, e.g. wood pulp, straw etc.) in
purity required in its conversion into xylite by hydrogenation,
includes acid hydrolysis of above raw material, followed by
neutralisation of hydrolysate contg. raw xylose, heating to
remove acetic acid and water, desalination by passing through
cation-exchanger and decolouration by passing through a
activated carbon and chromatographic sepn. using cation-
exchange resin.

The prod. purity is increased and the process is simplified by
subjecting purified hydrolysate contg. 25-28% sugars to
chromatographic fractionation using column filled with
polystyrene sulphonate cation- exchanger (crosslinked by 3.5%
divinyl-benzene) in a form of alkaline earth metal salt. The

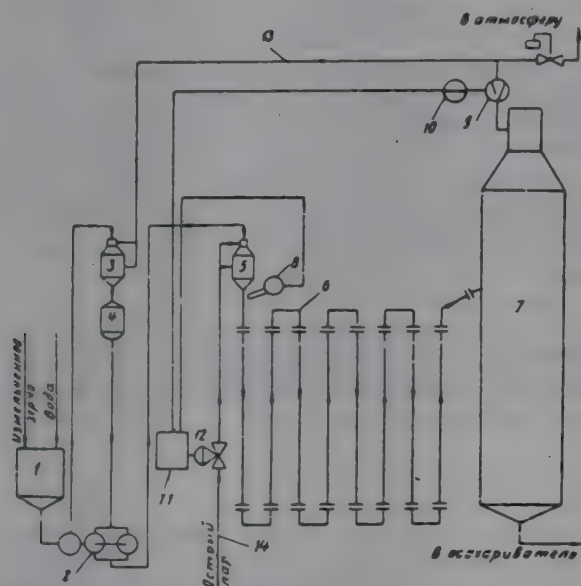
hydrolysate is passed through column at 16-17 l/hr. per sq. of column section rate. Bul. 45/7.12.80. (5pp)

KIFO = ★ D17 63800 D/35 ★ SU-787-459
Starch bearing feedstock boiling control - using extra steam flow rate transducer connected to live steam controller
KIEV FOOD IND TECHN 14.08.78-SU-681395
E17 T06 (17.12.80) C12c-07/04

14.08.78 as 681395 (89WD)

Improved control of boiling starch bearing feedstock, in alcohol prodn. is due to the temperature transducer at the outlet of the live steam contact head. The transducer is connected to the servo controller of the live steam line which is linked to the steam flow sensor.

The ground grain and water are fed to the mixer I and and pump 2 ensures their transfer to the contact head 3 followed by steam expander 4. The pump 2 then feeds the mass to the live steam contact head 5 in upstream of boiler 6 and holding separator 7. The design provides optimum flow of live steam and prevents the formation of surplus steam. Bul.46/15.12.80. (2pp Dwg.No.1)



FERM = ★ D17 63801 D/35 ★ SU-787-461
Starch-contg. material digester for alcohol prodn. - has steam separator with assembly for distributing boiled mass and protecting walls against corrosion

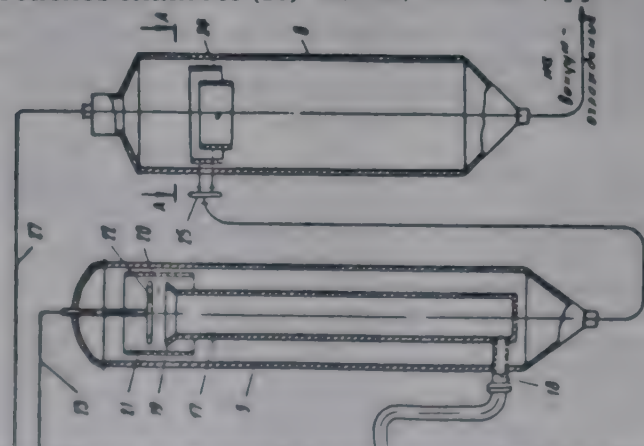
FERMENTATION PROD 30.06.77-SU-502372

E17 (17.12.80) C12c-07/06

30.06.77 as 502372 (89GW)

Intensification of boiling starch-contg. raw material in alcohol prodn. and redn. of heat consumption as well as improved reliability are ensured by the steam separator. It includes a distributor for the boiled mass and a protector of wall against corrosion which features rings with tangential tubes connected to a common header.

The ground feedstock is loaded into the precooking mixer with the grain and water in a ratio of 1:3. The exhaust steam from the separator ensures heating to 65 deg. C. The mass is transferred to the contact head by a pump for dispersion through the sprayer. Part of the steam and uncondensable gases are drawn from chamber (8) of the contact head, and the treated mass from holder (5) reaches chamber (20). Bul.46/15.12.80. (5pp Dwg.No.1)

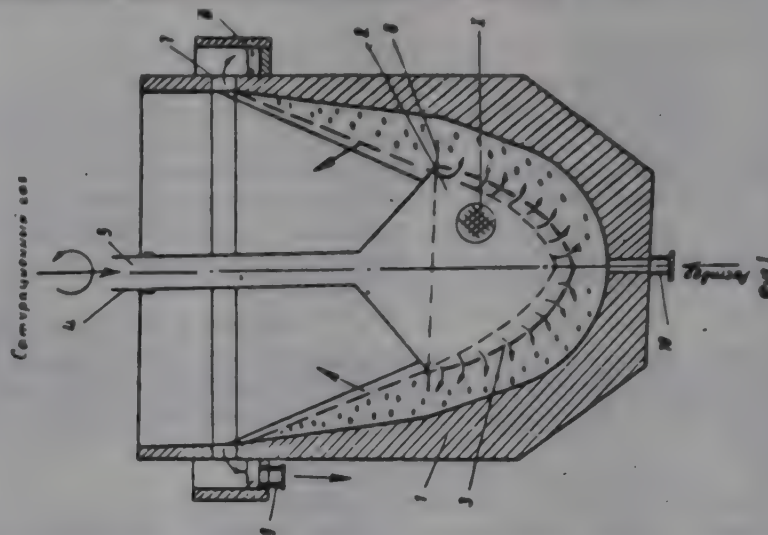


KIFO = ★ D17 63803 D/35 ★ SU-787-473
Beet sugar juice carbonator - has inner surface as revolution paraboloid with top annular slot discharging treated juice

KIEV FOOD IND TECHN 27.12.78-SU-705250

E17 T06 (17.12.80) C12c-07/04

using inner surface of the tank in the form of a paraboloid of revolution. The top features a ring slot for exhausting the carbonated soln. while the stirrer is hollow and is shaped as a perforated paraboloid shell. (3pp Dwg.No.1)



DOVG/ ★ D17 63911 D/35 ★ SU-787-858
Vacuum condensn. plant e.g. for sugar refinery - has uncondensed gas cooler connected to fresh water line before first stage of condenser

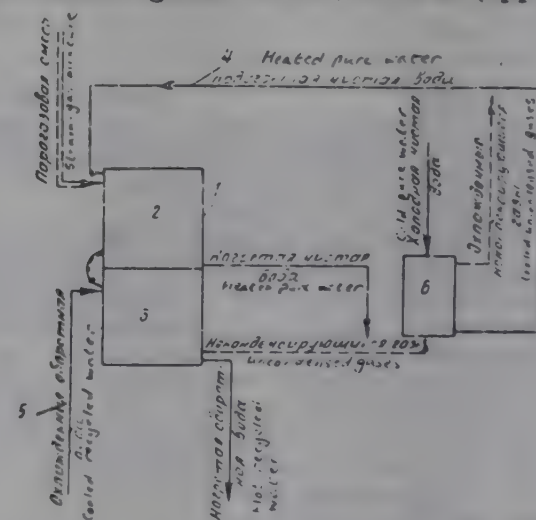
DOVGOPOL VI 25.03.77-SU-466475

J01 Q78 (17.12.80) B01d-01 F28b-03/06

25.03.77 as 466475 (18GW)

The plant comprises a mixing condenser (1) with series connected steam stages (2 and 3), to the first of which is connected a pipeline (4) supplying fresh water, and to the second, pipeline (5) supplying recycled water. For greater economic efficiency, it has a cooler (6) for the uncondensed gases, connected to the fresh water pipeline in front of the first stage of the condenser.

With the hot gases and cold water in direct contact in counterflow, the gases are completely cooled, with simultaneous heating of the fresh water supplied to the first stage (2) of the condenser (1). This avoids pollution of rivers etc. with effluent, reduces fresh water consumption, and reduces the temp. of the departing uncondensed gases. Bul.46/15.12.80. (2pp Dwg.No.1)



WESS- D17 86325 B/48 = US 4283
Washing particulate feedstock esp. starch in hydrocyclones arranged as multistage enclosed system with partial final starch recycling

WESSANEN NEDERLAND 24.05.78-GB-022187

P41 (11.08.81) *EP--5-651 C131-01

23.05.79 as 042601 (1358WB)

Particulate starch is upgraded by counter-current washing water in a cascade of hydrocyclones with starch suspension from one end and wash water to the other. The underflow stream of each stage except the last is pumped directly into the next stage while the overflow is introduced into the feed line to the previous stage at the inlet side of the pump in that line.

The first stage overflow stream contains remaining contaminants and is discharged from the system. All stages are operated as a totally enclosed system with the different stages interdependent. Final stage underflow containing the washed product is partly discharged from the system and partly recycled directly to the final stage via the inlet side of the feed line pump. (10pp)

See Also

D13 GB 1596742

D16 GB 1596662

D16 J5 608

D18: SKINS; HIDES; LEATHER; TOBACCO

RATI-★ D18 62392 D/35 ★DD-148-845
Continuous pigs skin fleshing machine - with two identical three-roll systems in series

VEB RATIONALIS KUNS 17.01.80-DD-218498

(03.06.81) C14b-01/02

17.01.80 as 218498 (39HM)

Machine to remove the fatty tissue from the flesh side of pig's skin consists of two treatment systems. Each includes a scraper tool roll, a thrust roll, and a transport roll. The first system treats a skin to three-quarters of its length and then reverses to pass it to the second skin, as it completes the fleshing process of this part. The second system operates in the same way and deposits the skin on a belt conveyor.

This machine fits ideally in an automated flow line. It eliminates all heavy manual labour. (10pp)

BENC★ D18 62518 D/35 ★DE 3005-699
Neutralising mineral-tanned leather, esp. chrome leather - with alkali salt of polymer contg. carboxyl gps.

BENCKISER-KNAPSACK 15.02.80-DE-005699

A97 (20.08.81) C14c-03/04

15.02.80 as 005699 (510DJ)

Leather tanned with minerals is de-acidified and/or neutralised by using alkali salts of polymers contg. COOH gps. as acid-binding and/or acid-exchanging agents.

The leather is partic. chrome leather. Alkali salts of (co)polymers from (meth)acrylic acid, maleic acid, or hydroxy-acrylic acid are used. The mol.wt. of the polymer is 1,000-30,000 (2,000-15,000), esp. 4,000-8,000 for polyacrylic acids. The salts are used as 10-50 (20-40)% solns. The solns. are brought to pH 4-10 (6-8) by addn. of an alkali, e.g. NaOH, KOH, or Na₂CO₃.

The treated leather is more alkaline than the bath in which it was filled. Acid-exchange is quant. Dye uptake is improved without the use of levelling agents, and Cr-dye reactions are prevented. Non-uniform uptake of anionic dyes and fatty substances is retarded, and better distribution is ensured. Rinsing before and after neutralisation is not necessary. Soft leather with very fine grain can be obtd. (13pp)

SHKG★ D18 62525 D/35 ★DE 3005-793
Porous filter paper with synthetic material dots - in grid pattern, for cigarette filter tips or tea bags

SCHOELLER & HOESCH KG 15.02.80-DE-005793

A97 F09 (A88) (20.08.81) B01d-39/18 D21f-11/14

15.02.80 as 005793 (510HM)

Porous filter paper has a substrate of only slightly beaten vegetable fibres, carrying on one side a grid of point-formed projections of a hot-melt synthetic material. Prodn. of an intermediate for the filter paper by prepn. of a fleece on the sieve of a paper-making machine, followed by appln. of a hot-melt adhesive on one side of the fleece, from a heated intaglio printing roller is claimed.

Air-permeable filter tips for cigarettes, and boil-proof filter paper for tea bags are claimed. The homogeneity and mechanical strength of the paper are improved, and 50-80% of the porosity is retained. The process is suitable for high speed prodn. A lighter paper (10-35 g/sq.m) can be used. The amt. of synthetic applied can be controlled to within + -3%, compared with + -8-10% when synthetic fibres are included in the paper. (12pp)

NFL D18 40070 A/22 = GB 1596-252
Tobacco prod. flavouring - using e.g. 2-methyl-3-furyl-3,6-dimethyl-2-pyrazinyl sulphide

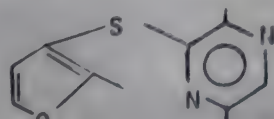
INT FLAVORS & FRAGR INC 07.10.76-US-730535

E17 P15 (E13) (26.08.81) *US4083-373 + A24b-15/36 C07d-405/12

08.77 as 013898 /80 Div.ex 1596251 (924HM)

Tobacco prod. includes an amt. of (3,6-dimethyl-2-pyrazinyl) (2-methyl-3-furyl) sulphide of formula (I) to enhance its flavour and/or aroma. Pref. conc. of (I) in the tobacco prod. is 50-5000 (100-500) ppm based on total wt. of tobacco on dry basis.

Typical tobacco formulation is 0.05 pts. ethyl butyrate, 0.05 pts. ethyl valerate, 2 pts. maltol, 26 pts. cocoa extract, 10 pts. coffee extract, 20 pts. ethanol (95% aq.) and 41.9 pts. water. 100 ppm of (I) added to resulting cigarettes to provide sweet, nutty-hazelnut-like aroma with a slightly breadly nuance. (8pp)



(I)

HWAY-★ D18 62847 D/35 ★GB 2069-407
Waste leather regeneration process - comprises napping long-fibres pulp back layer laminated to short-fibres pulp face layer

HWAYIN WORLDWIDE DE 12.02.80-GB-004620

P73 (26.08.81) B32b-05/02 B32b-09/02 D21h-05/20

12.02.80 as 004620 (006HM)

Short-fibres and long-fibres pulps of waste leather are formed into respective sheets which are refrigerated and then vacuum-dried, while frozen, before being combined, by dipping in bonding agent to laminate them as face and back layers.

The long-fibres layer is then napped, to simulate the back of natural leather, the short-fibres layer pref. being made from pulp engaging a release sheet embossed to resemble natural leather surfaces while the long-fibres layer is made from pulp bonded to fabric for location between the layers. (6pp)

FBPM-★ D18 D/35 ★IT 1051-219
Equipment for stacking skins for tanning

FBP MECCANICA SNC 07.10.74-IT-085598

Q36 (21.04.81) B65h

TEXT=★ D18 63650 D/35 ★SU-785-762
Thin-layer chromatograms of tanning agents - developed using alumina sorbent and gaseous products of thermal destruction of thin polyurethane film

TEXTILE LIGHT IND 12.01.79-SU-713742

A89 J01 S03 (07.12.80) G01n-31/08

12.01.79 as 713742 (70VE)

Thin-layer chromatograms of tanning substances on alumina are developed by acting onto the sep'd. substances with specific reagents. The sensitivity of this method is increased by using as reagents gaseous products of the thermal destruction of a polyurethane film (thickness 0.5-0.6 mm) contacted with the alumina surface at 150-180 deg.C for 0.5-1.5 min.

The mobile phase is e.g. a mixt. of water, acetone, n-butanol and acetic acid in a ratio of 2:1.5:1.8:0.5. The developed thin-layer chromatograms can be stored for a long time. This method is used for the analysis of mixed leather-tanning compsns. Bul. 45/7.12.80. (2pp)

LEAT=★ D18 63788 D/35 ★SU-787-421
Prepn. of synthetic, oil tanning compsn. for leather - by treating amino-formaldehyde precondensate with mixt. of sulphonated pig fat, urea and alkyl sulpho-chloride

LEATHER FOOTWEAR 03.10.78-SU-670854

A97 (A21) (15.12.80) C08g-12/40 C14c-09

03.10.78 as 670854 (124VE)

Synthetic, oil tanning and impregnating compsn. for treatment of leather is obtd. by treating an amino-formaldehyde precondensate with a mixt. of H₂SO₄ sulphonated pig fat (I), urea (II) and a 1-2:1.6-3.5 mixt. of (I) and 12-18C alkylsulphochloride (III) taken in proportions (I):(II):(III) = 1:0.2-1.5:0.5-1.5:0.5-6. Use of the above compsn. increases the light fastness of the leather.

Typically, mixt. contg. 6 pts. formaldehyde neutralised with 2M NaOH to pH 8.5-9.0 and 3 pts. (II) was condensed for 60 min. at 92 deg. C 1.2 pts.(I) added and the reaction carried out for 15 min. at 60-70 deg. C. Further addn. of 3 pts.(II) was followed by condensation for 15 min. at 65-70 deg. C, addn. of 7.8 pts.(III) and 5.67 pts.(II) and the process was continued for 180 min. at 50-60 deg. C until the smell of formaldehyde disappeared, to yield the product. Bul.46/15.12.80. (2pp)

CELA D18 68589 B/38 = US 4282-890
Cellulose acetate foam cigarette filter rod - prod. by extrusion with blowing agent under controlled temp. conditions

CELANESE CORP 13.03.78-US-886201 (23.05.79-US-041577)

A88 P15 (A11 A32) (11.08.81) *GB2015-921 A24d-03/04

23.05.79 as 041577 Div.ex 4180536 (918NS)

Cigarette filter rod (I) comprises homogeneously plasticised cellulose acetate and open cell foam having at least some cells bridged by fibrils. The cellulose acetate has 55% esterification (expressed as acetyl value) as combined acetic acid and less than 0.003 wt.% bound sulphate.

(I) has a density less than 0.12 g/cc and a water impervious skin structure. The tariness of (I) is greater than 85% before smoking (filtrona tester measured) and a smoke removal efficiency greater than 20%. It pref. also contains a nucleating agent. Particulate matter and condensable vapour is trapped in the foam by impingement and absorption. The filter provides a large area for smoke capture. (10pp)

CELA D18 26944 A/15 = US 4283-186
Cigarette filters - made from cellulose acetate fibrils and short fibres

CELANESE CORP 06.10.76-US-730039 (28.08.78-US-937229)
A88 P15 + P53 (A11) (11.08.81) *BE-859-459 B01d-27
28.08.78 as 937229 (1376HM)
Cigarette filter rod is mfd. from a coherent self-supporting sheet of cellulose ester staple fibres having 5 to 35% cellulose ester fibres. The weight of the sheet is less than 1 gm/m². The sheet is

folded and held by a strip to form a rod.

The sheet is pref. corrugated and may be layered with a web of cellulose acetate cigarette tow prior to folding. (11pp)

See Also

D16 DE 3005365

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

WELA ★ D21 62548 D/35 ★DE 3006-180
Hair-fixing compsn. - contg. modified air-drying oil in water-repellent solvent soln. in addn. to film-forming polymer soln.

WELLA AG 19.02.80-DE-006180
A96 (20.08.81) A61k-07/11
19.02.80 as 006180 (200AT)
Film-forming polymer-based hair-fixing compsn. contains modified air-drying oils dissolved in a water-repellent solvent. The modified air-drying oils can be (i) blown oils, e.g. brown linseed-, wood-, castor-, rape- or soya oil, (ii) varnishes, e.g. a linseed oil varnish, (iii) stand oils, e.g. wood-, castor- or linseed stand oil, and/or (iv) air-drying oils modified with unsatd. monomer cpds. e.g. maleic anhydride, styrene or vinyl-toluene.

The compsns. are used in hair-dressing, to strengthen 'set'. The modified air-drying oils acts first as plasticisers and prevent polymer splintering off on removing rollers, combing or brushing. The modified oils then harden within 24 hrs. and increase strength of set. (14pp)

DENT-★ D21 62564 D/35 ★EP --33-750
Acrylic dental polymer compsns. - comprising polymerisable methacrylate mixt. contg. polyfunctional methacrylate, with 2,2-di:alkyl benzo:pinacol curing catalyst

ETAB DENTAIRE IVOCL 08.02.80-EP-100639
A96 (A14) (19.08.81) A61k-06/08 C08f-04
08.02.80 as 100639 (513HM) (G) CH-473856 FR1385958 DE2701792 FR2094493 US3084436 2.Jnl.Ref E(AT BE CH DR FR GB IT NL SE)

Dental plastics compsn. for making artificial dentures and teeth, comprises (a) one or more polymerisable methacrylate cpds., of which at least one is a polyfunctional methacrylate, opt. mixed with polymerisation inhibitors; (b) plastics compsns. obtd. by polymerising (a), or mixts. of (a) and (b); and (c) a catalyst comprising at least one 2,2'-dialkyl-benzpinacol contg. opt. substd. 1-6C alkyl gps.

The 2,2'-dialkyl-benzpinacol catalysts have high reactivity and give rapid polymerisation at 70-180 deg. C, esp. 75-120 deg. C to give cured prods. with freedom from small bubbles (associated e.g. with the use of benzoyl peroxide), improved transparency, appearance and strength. The compsns. are useful in the prodn. of teeth, crowns, bridges, dentures, etc. (20pp)

MAGG/★ D21 62687 D/35 ★EP --34-126
Shaving compsn. contg. cationic ammonium cpd. or polymer - protein, surfactant and wetting agent, forming protective lipophilic skin layer

MAGGESIL 25.01.80-IT-019475
A96 (19.08.81) A61k-07/15
23.01.80 as 830012 (1251HM) (E) FR2383660 US4240450 US3855290 FR2080759 US3734858 GB1479707 GB1479708 1.Jnl.Ref L(AT BE CH DE FR GB LI LU NL SE)

Cosmetic and dermatological shaving aid has pH 2-7 and contains (a) 0.5-25% cationic organic cpd. (A) with at least one quat. ammonium gp.; (b) 1-20% animal and/or vegetable proteins (or hydrolysates, condensates or derivs.); (c) 0.01-15% nonionic or ampholytic surfactants; and (d) 1-50% wetting, hydrating and supergreasing agents. The compsn. is free of soap, anionic polymers and anionic surfactants.

Opt. ingredients include 0.5-10% protective and gelling colloid; 0.05-3% preservative; 0.05-3% antifoam; 0.5-20% lubricant and anti-dehydrating agent (B), plus (to make 100%), solvents, pigments, dyes, fillers, perfume and colour.

chloride copolymer or quat. hydroxyethylcellulose. (A) forms a thin, protective, lipophilic film over the skin, preventing damage by the razor, and also improving wetting of the hair and dispersing accumulated static charge. (29pp)

FABR★ D21 62732 D/35 ★FR 2473-310
Stable extracts of henna - free from nitrogenous materials, suitable for use as dye for hair

FABRE P SA 15.01.80-FR-000808
E24 (17.07.81) A61k-07/06 A61k-35/78
15.01.80 as 000808 (520DJ)

Stable extracts of Lawsonia inermis (henna) that are free from all nitrogenous materials such as amino acids and proteins, are new.

The extracts are obtd. by either of the following routes: (1) (a) extraction of henna leaves in an acid medium using a solvent of low polarity which does not dissolve nitrogenous materials; (b) extracting the product from (a) into aqueous alkali; (c) acidification and extraction with a solvent of low polarity; (d) sepn. of the dye from the extract from (c), or (2) (a) extraction of henna leaves with a polar solvent; (b) in an acid medium, extracting the extract from (a) using a solvent of low polarity which does not dissolve nitrogenous materials (c) sepn. of the dye from the extract from (b).

Suitable solvents of low polarity are 3-10C ketones, 1-30 chlorinated solvents, aromatic hydrocarbons, and 3-10C ester and ethers. Suitable polar solvents include water, which may be alkaline, 1-4C alcohols, and their mixtures.

Used for dyes, esp. for the hair, cosmetics, and therapeutic preparations. The elimination of nitrogenous material stabilises the lawsone (2-hydroxy naphthoquinone) content of the extract, hence this has a stable dyeing power. (11pp)

HOFF D21 82107 A/46 = GB 1596-5
Antiperspirant organo-aluminium cpds. - with high sweat inhibition both initially and over a period

HOFFMANN-LA ROCHE AG 11.05.77-LU-077315
E12 (26.08.81) *BE-866-890 A61k-07/38 C07f-05/06
10.05.78 as 018673 (945NS)

Antiperspirant compsn. contains an organo-Al cpd. of formula R1-Al(X)-OR2 (I). In the formula X is Cl or Br. R1 is alkyl. R2 alk(en)yl, cycloalk(en)yl, aryl, alkanoyl, alkenoyl or aroyl. N-cyclic R2 gps. are opt. substd. by opt. alkyl subcycloalk(en)yl, opt. alkyl or alkoxy substd. aryl, (cyclo)alkenyl, cycloalkenyloxy and/or aryloxy. The cyclic R2 gps. are opt. substd. by alkyl, alkoxy and/or aryl. Two adjacent alkyl alkoxy gps. on a phenyl gp. denoted by R2 can be joined to form 5- or 6-membered satd. ring.

Cpds. (I) have a very high initial and also a long lasting antiperspiration activity. Suitably the compsn. contains 1-30 wt.

(I). (12pp)

HASB-★ D21 62827 D/35 ★GB 2066-3
Readily water-emulsifiable oil phase cosmetic compsn. - containing poly:hydroxy cpd, acid, alcohol, ester, preservative, and surfactant

HASBRO IND INC 19.02.80-US-122718
(26.08.81) A61k-07
10.10.80 as 032765 (478HM)

Oil phase compsn. easily emulsifiable with H₂O for use in cosmetic kit consists of an H₂O-soluble polyhydroxy-cpd, fatty acid; a fatty alcohol; an ester; a preservative (II); a hydrophilic surfactant (III) and a lipophilic surfactant (IV).

cosmetics which are safe, washable, and do not stain skin or mucous membranes and are partic. suitable for use by young children. (4pp)

TOXN ★ D21 62875 D/35 ★ GB 2069-499
Acidic protein obtd. from *Arthrinium* sp. M5071 etc. - useful as glucosyl-transferase inhibitor for preventing dental caries
TOYO JOZO KK 11.12.80-JP-175476 (18.01.80-JP-005128)
B04 (D16) (26.08.81) C07g-07 C12n-09
6.01.81 as 001377 (1248KB)

Acidic protein (I) of molecular wt. 30000-60000 and that inhibits the synthesis of insoluble glucans by glucosyltransferase, is new. A culture of the micro-organisms *Arthrinium* sp. M5071 or *Uvarium solani* M5084 or *Gnomoniella* sp. M5093 or *Modulisporium* sp. M5094 in a culture medium contg. sources of assimilable C and N ant opt. mineral elements, and free from other micro-organisms, is new.

Proteins (I) inhibit synthesis of insoluble glucans and so are useful for preventing dental caries caused by prodn. of glucans by *Strep. mutans* in presence of sugar. They are included in oral hygiene prods. at over 0.0001 wt.%. (25pp)

DAIN ★ D21 62877 D/35 ★ GB 2069-501
Alkaline protease M3 from *Streptomyces globisporus* ATCC 21553 useful as glucosyl-transferase inhibitors for preventing dental caries

DAINIPPON PHARM KK 24.01.80-JP-007557
B04 (D16) (26.08.81) A61k-07/28 C12n-09/52
1.01.81 as 001793 (1248RH)

Alkaline protease M3 is new. It (a) hydrolyses casein and inhibits the activity of glucosyltransferase; (b) it has an optimum pH range of 9-12.5 (substrate casein) and in buffer at pH 4-9 at 37 deg.C for 6 days, at least 50% of the protease activity is retained; (c) it has an optimum temp. of 65 deg.C (substrate casein) and in aq. soln. heated at 55 deg.C for 10 mins. it is stable, while at 60 deg.C there is 50% inactivation and at 65 deg.C there is 90% inactivation.

The protease activity is completely inhibited by N-tromosuccinimide at 10 to minus 4M but not by iodoacetic acid, isopropyl fluorophosphate, EDTA or FeSO₄ at 10 to minus 3M. The protease has an isoelectric point of about pH 9.5 and a molecular wt. of 1.7 times 10 to 4.

The protease has good activity in inhibiting dental caries because of the glucosyltransferase inhibitory activity, and so it is included in toothpastes, toothpowders and other oral hygiene prods. e.g. at 0.001-5% concn. (18pp)

MITU ★ D21 63070 D/35 ★ J5 6084-798
Pocket soap prodn. - contg. alkali salt of fatty acid and starch and/or cellulose

MITSUBISHI CHEM IND KK 14.12.79-JP-162476
A07 (10.07.81) C11d-09/22
12.79 as 162476 (126AT)

New soap compsn. contains 10-40wt.% alkali metal salt of fatty acid and 90-60wt.% starches and/or celluloses.

Pref. alkali metal salt of fatty acid is Na or K salt of 12-18C fatty acid e.g. lauric, myristic, palmitic or stearic acids, etc. Pref. starches are corn, wheat or potato starch, or processed starch e.g. hydroxypropyl starch, etc. Pref. celluloses are natural cellulose, cellulose ester or ether e.g. crystalline cellulose obtd. removing the amorphous components of natural cellulose, methyl cellulose, carboxymethyl cellulose, or hydroxyethyl cellulose etc. Suitable additives e.g. sugars, surface active agent, and inorganic fine powders e.g. Al silicate, Ca phosphate, etc. may be used in combination. The soap compsn. of this invention is suitable to the prodn. of tablets which is convenient as a pocket soap. It can be easily tableted by the direct compression moulding of the powder since its mouldability is superior. Due to satisfactory crumbling resistance and hardness, there is no fear of causing crumbling while it is pocketed. (3pp)

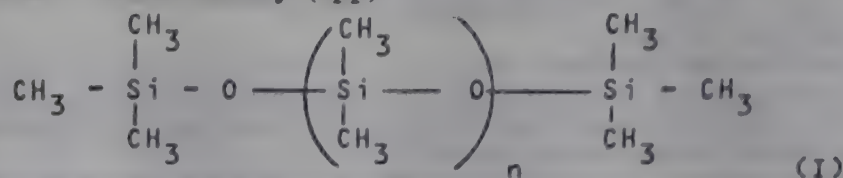
LOY ★ D21 63199 D/35 ★ J5 6086-113
Air conditioning compsn. - contg. alpha-olefin polymer, methyl polysiloxane, emulsifier and water
LION CORP 07.12.79-JP-158980
A06 (A17 A26) (13.07.81) A61k-07/06
12.79 as 158980 (5WB)

Compsn. contains (a) 0.5-10 w/w% liquid polymer of mol wt. 282-338, esp. 338-684 which is obtd. by polymerising 6-18C alpha-olefins, (b) 0.1-5 w/w% dimethylpolysiloxane (I), (where n is 5-50), (c) 0.1-10 w/w% high mol. linear emulsifier and (d) above 50 w/w%, esp. 70-99 w/w% water.

The high mol. linear emulsifier is polyoxyethylene-hydrogenated castor oil-ether, fatty acid ester of polyoxyethylene-hydrogenated castor oil-ether,

sorbitan-fatty acid ester, polyoxyethylene-sorbit-fatty acid ester and polyoxyethylene-sorbitol-fatty acid ester.

Pref. (a) is prepd. by polymerising 6-18C, esp. 6-14C alpha-olefins in the presence of modified Lewis acid catalyst. The mixt. is emulsified and is combined with 0.3-30 w/w% lower alcohol as solvent as well as antibiotic, anti-freezing agent, rapid drying agent, etc. The emulsifier (c) pref. has HLB of 8-20. Compsn. makes hair emollient and glossy and improves brushing property of hair. It is not sticky. (6pp)



NAKA/ ★ D21 63435 D/35 ★ J5 6087-513
Cosmetic compsn. - contg. pearl barley powder e.g. skin cleansing compsns. etc.

NAKANOTO 19.12.79-JP-164096
(16.07.81) A61k-07

19.12.79 as 164096 (22RH)

Cosmetic compsn. which contains pearl barley powder. The pearl barley is powder of seed of *Coix Lachryma-jobi* Linne var. *ma-yuen* Stumpf and this contains water, protein, fat, starch, and ash. The present cosmetic composition shows good cosmetic activity to the skin.

For instance, 32% starch, 32% flour, 20% pearl barley powder, 15% defatted milk, 1% lecithin and suitable amt. of perfume are homogeneously blended. The resulting compsn. is useful as cleansing compsn. The above compsn. is used in form of slurry or paste. (2pp)

TAKE/ ★ D21 63436 D/35 ★ J5 6087-514
Compsn. for accelerating hair growth - contains dithioglycolic acid or its deriv. and opt. hydroxy fatty acid, etc.

TAKEDA I 19.12.79-JP-164027
E16 (16.07.81) A61k-07/06

19.12.79 as 164027 (22WB)

Compsn. contains dithioglycolic acid or its salt or deriv. and has pH value of 2 to 6. The amt. of dithioglycolic acid or its deriv. used is 0.1 to 5 wt/v%. There may also be incorporated alpha-hydroxy fatty acid such as lactic acid and glycolic acid. The salt includes the sodium, potassium, or ammonium salt, etc. The compsn. may contain propylene glycol, glycerine, sorbitol, etc. as thickening agent.

Typically, 1 g dithioglycolic acid, 1 g ammonium dithioglycolate, 0.1 g menthol, 0.001 g mustard tincture, 0.01 g pyridoxine hydrochloride, 1 g propylene glycol and 0.5 g perfume are blended and dissolved in 100 ml ethanol. (2pp)

TREU- D21 30564 U/22 = J8 1032-962
Hair care compsn - promoting growth and cntg nicotinic acid, dissolved in ethanol

TREUHANDVEREINIGUNG (IND) 11.11.71-FI-003223
(13.09.71-FI-002553)

E13 (31.07.81) *DE2248-290 A61k-07/06

13.09.72 as 092199 (+ 11.11.71, 29.11.71-FI-003223, 003408) (RH)

Hair care compsn. is claimed contg. per 100 ml. 1g. nicotinic acid and opt. 0.1g one or more aromatic carboxylic acids esp. 0.1g. salicylic and/or benzoic acid, dissolved in 10 ml. EtOH, 2g. urea, 60ml. polyoxyethylene sorbitan-monopalmitate or monostearate, bal. isopropyl myristate.

Used as hair growth activator. No deleterious side effects caused by compsn.

In preparing the compsn, the nicotinic acid and opt. aromatic carboxylic acid(s) are dissolved in EtOH with heating to 30-35 deg.C. The urea and the monopalmitate or monostearate are mixed with heating to 50-60 deg.C. The mixts. are combined followed addn. of isopropyl myristate, with stirring. (J48096735) (6pp)

SHIS D21 38440 W/23 = J8 1032-963
Permanent hair-waving compsns. - contain (bi)sulphite(s), org. carbonates, and inorganic salts or org. acids

SHISEIDO KK 31.05.73-JP-061227
(31.07.81) *J50006-727 + A61k-07/09

31.05.73 as 061227 (DH)

Permanent hair-waving compsns. are formulated from a soln. (A) contg. SO₃²⁻ and/or HSO₃⁻ (1-4%), and at least 1 of ethylene carbonate, Me carbonate, and Et carbonate and their derivs. (5-70%) and a soln. (B) contg. at least 1 of MmXn (M = Li, Na, K, Cu, Be, Mg, Ca, Zn, NH₄ or H; X is F, Cl, NO₃, SO₄, PO₄, OH or CO₃; m = 1-3; n = 1 or 2), citric acid, succinic acid, tartaric acid and acetic acid (0.0001-5.0%). The prepn. was free of unpleasant odour, harmful, and highly effective.

In an example, a typical compn. contained (NH₄)HSO₃ 10.0, ethylene carbonate 15.0, polyethylene glycol 2.0, ion-exchange H₂O 73.0%, and proper amt. of oxidn. preventing agent, and HCl 0.01%. (J50006727) (4pp)

SHIS D21 30996 X/17 = J8 1032-964
Odourless stable permanent wave compsn. - contg (di)ethanolamine (hydrogen)sulphite

SHISEIDO KK 04.09.74-JP-101743
E19 (31.07.81) *J51029-234 A61k-07/09
04.09.74 as 101743 (NS)

Title compsn. contains 1-40% Na, K, NH₄, monoethanolamine or diethanolamine hydrogensulphite or sulphite as main ingredient, 5-70% ethylene carbonate or propylene carbonate as accelerator, and other additives such as water, etc.

The compsn. is used together with a compsn. contg. water-soluble calcium salt such as calcium acetate, etc. (J51029234) (5pp)

KURS D21 18156 A/10 = J8 1033-363
Adhesives for teeth and bone - comprise a hardener comprising peroxide, amine and sulphate salt and a radical-polymerisable monomer

KURARAY KK 31.08.76-JP-104772
A96 E19 + P31 P32 (03.08.81) *DE2739-282 + A61f-01 A61k-06
31.08.76 as 104772 (367AT)

Adhesives for human hard tissue comprise (a) a radical-polymerisable monomer and (b) a hardener comprising a peroxide, or amine (or amine salt) and a sulphonic acid salt (I). Component (a) pref. comprises one or more (meth)acrylate esters. The peroxide an amine (or amine salt) and a sulphonic acid salt (I). Component (a) pref. comprises one or more (meth)acrylate esters. The peroxide is pref. a diacyl (esp. benzoyl)peroxide. The amine is pref. a sec. or tert. aromatic amine. (I) is pref. an arylsulphinate (esp. benzenesulphinate) salt.

The adhesives are esp. useful as dental fillings, but can also be used on bone, e.g. to treat cpd. fractures or fix artificial joints. The adhesives have a higher bonding strength (up to 100kg/sq. cm) and set more rapidly than similar compsns. contg. peroxide/amine hardeners, and are more stable than compsns. contg. peroxide/sulphonic acid hardeners.

A typical compsn. comprises methyl methacrylate, ethylene glycol dimethacrylate, polymethyl methacrylate N,N'-di(2-hydroxyethyl)-p-toluidine, p-toluenesulphonic acid and benzoyl peroxide. (J53030193) (5pp)

KAOS D21 54669 Y/31 = J8 1033-364
Transparent hair rinsing compsn. - contg. quaternary ammonium salt, fat and oil component and amphoteric surfactant

KAOSOAP KK 15.12.75-JP-149273
E16 (E14) (03.08.81) *J52072-834 A61k-07/08
15.12.75 as 149273 (5HM)

Transparent hair-rinsing compsn. contains as essential ingredients, (A) 0.1-10.0w/w% quat. ammonium salt(s) of formula NR₁R₂R₃R₄ + X-(I); (B) 0.1-5 w/w% of fat and oil composed of 1 or 3-20C aliphatic higher alcohol, polyoxyethylene-alkylether having 1-4 added molar number of ethyleneoxide and contg. 8-20C alkyl gp., lower alkyl ester of 12-20C higher fatty acid, lanolin and liq. paraffin and (C) 0.1-13 w/w% of amphoteric surfactant(s) of formula + NR₅R₅R₇(CH₂)mCOO- (II), N + R₅R₆R₇(CH₂)mSO₃- (III) and/or R₅CON- N + R₆R₇R₈ (IV).

In the formulae, (hydroxy) R₁-4 are alkyl or benzyl. One or two of R₁-4 should be 8-20C alkyl or hydroxyalkyl and the remaining 1-3C alkyl, hydroxyalkyl or benzyl. R₅ is 8-18C alkyl or hydroxyalkyl. R₆-8 are 1-3C alkyl, hydroxyalkyl or benzyl, m is 1-4.

The compsns. are transparent throughout their prepn. and application and can give softness, smoothness and antistatic property to hair. (J52072834) (6pp)

YAMA/ D21 88144 A/49 = J8 1033-370
Dental sealing composition - contg. a strontium cpd., a zinc cpd. and tannin

YAMAGAR 27.05.77-JP-062391
E33 (E32) (03.08.81) *DE2822-671 A61k-33/24 A61k-35/78
27.05.77 as 062391 (280DJ)

New medicinal preps. for use in dental medicine contain a strontium cpd., a zinc cpd., and tannin in amts. such that the ratio (by wt.) of strontium to zinc to tannin is 1:3:2:4:1:3.

Used as an agent to protect the dentine or for sealing small channels in the teeth. The preps. exert a protective effect on dentine, prevent dental caries, protect the dental pulp and alleviate hyperaesthesia.

additionally contain a fluorine compound which consists of a poly-

pH regulator. (J53148542) (6pp)

UMEA = ★ D21 63667 D/35 ★SU-787-02
Face cream compsn. - contg. whey, beeswax, hydrogenated alcohol of sperm whale fat, olive oil, lanolin, spermaceti and perfumery oil

UKR MEAT DAIRY IND(NIKO = KIME =) 12.02.79-SU-718109
(15.12.80) A61k-07
12.02.79 as 718109 (114VE)

Face cream of increased biological activity has (in wt.%): lanolin 3-7; spermaceti 6-10; cacao oil 0.5-2; carbonate extract of parsley 0.2-0.7; Pentol 2-6; Nipazol 0.1-0.2; Nipagin 0.02-0.07; perfume 0.2; beeswax 3-6; hydrogenated alcohol of sperm whale fat 2-5; olive oil 20-30; perfumery oil 5-20; 15% dried whey soln. to 100.

Typically, the dried whey is dissolved in water at 70-80 deg. C. before filtering, adding other ingredients and heating at 65-70 deg. C. (to give fusion) before emulsifying by usual methods.

The prod. is applied to skin and wiped off after 30-40 mins. to give toning, moisturising and stimulating effect. Bul. 46/15.12.80. (2pp)

ALLE- ★ D21 63967 D/35 ★US 4282-877
Hair remover - comprising strip of plastic sheet with pressure sensitive adhesive and wax depilatory on one side

ALLEGHANY PHARMACAL 26.02.79-US-015221
A96 G03 P31 (11.08.81) A61b-17
26.02.79 as 015221 (478HM)

Device for the removal of unwanted hair consists of a plastic sheet with a pressure-sensitive adhesive compsn. which contains (all by wt.): (a) 9-10% of a high mol. wt. polymer (I); (b) 65-68.5% of a tackifier (II); (c) 21.5-25% of a softener (III); and (d) ca. 0.5% of an antioxidant (IV).

(I) is a polymer of: natural or Bu rubber, butadiene-styrene block styrene, ethylene-vinyl acetate, vinyl acetate, Et cellulose, and natural waxes. (II) is a terpene, rosin deriv., coumaron indene, hydrocarbon resin, or terpene phenolic. (III) is mineral oil, liq. rosin deriv., lanolin, di-Bu or dioctyl phthalate, tricresyl phosphate. (IV) is 2,2-methylene-bis(4-Me-6-Bu)phenol, 1,3,5-tri-Et-2,4,6-tris(3,5-di-t-Bu-4-HO-benzyl)benzene, or butylated hydroxy-anisole or -toluol.

Device allows unwanted hair to be removed and the hair line be shaped under controlled conditions with min. pain (comps. does not stick to skin) and min. removal of wanted hair. (3pp)

JETC- D21 15961 B/08 = US 4283-
Dental prosthesis working model prodn. - using device with jaws and ribs to hold model

JET-CERAMIC DENTAL 01.08.77-GB-032133
P32 (11.08.81) *WP7900-076 + A61c-19
26.07.78 as 024862 Based on WP 7900076 (1358HM)

Working model for making a dental prosthesis is made using one-part mould acting as a model base and has a semicircular outer wall spaced from a parabolic inner wall and a connecting rear wall, forming a space enlarging from bottom to top. There are openings through mould top and bottom to form an elongated passageway allowing removal of a cast plaster model.

Ribs are formed on facing inner and outer wall surface provide retention marks on the model and are of a length equal to the wall height so that they extend from within one opening within the other. The mould may be of rigid plastics or metal there are pref. 15-30 ribs with rounded outer ends. (8pp)

AVON ★ D21 64061 D/35 ★US 428-
Nitrocellulose-free nail enamel compsn. - contg. polybutyral resin, arylsulphonamide formaldehyde resin, solvent carrier

AVON PRODUCTS INC 04.12.79-US-100241
A96 G02 (A14) (11.08.81) C08f-61 C08f-216 C09d-03/48
04.12.79 as 100241 (478HM)

Nitrocellulose-free nail enamel compsn. contains a polybutyral resin (I), an arylsulphonamide-HCHO resin (II), as a major component) a compatible solvent. Compsns. contain pref. 8-12% by wt. (I), not more than 1 wt. pt. (II)/pt. of (I), at 60% by wt. of solvent, and opt. a colouring agent, thixotropic agent, and an alcohol. Prefd. solvent is an EtOAc/n-BuOAc.

Compsns. are non-yellowing, use a non-flammable former, are simpler than conventional compsns., but have and wear characteristics at least as good as nitrocellulose compsns. (2pp)

REA D21 27146 Y/16 #US 4283-384
Cosmetics contg. polymers of unsatd. cpds. with hydroxylic cpds. prepd. in aq. medium in presence of cerium ions
L'OREAL SA 15.10.75-LU-073587 (08.11.76-US-740015)
A96 (11.08.81) *BE-847-267 A61k-07/04
3.01.79 as 005919 (393AS)
Shampoo comprises an aq. soln. of polymer obtd. by polymerising one of (a) acrylic acid, (b) methacrylic acid, (c) CH₂:CR-COOR₁ (where R is H or CH₃ and R₁ is opt. branched 1-8C alkyl), (d) CH₂:CR-COOCH₂CHNR'R (where R' and R are independently 1-5C alkyl) or their corresp. quat. esters, (e) CH₂:CR-COO(CH₂)_nOH (where n is 2 or 3), (f) acrylamide, (g) methacrylamide, (h) CH₂:CR-CONH-(CH₂)_n-OH, (i) CH₂:CR-CONH-R₂ (where R₂ is opt. branched 1-5C alkyl) or (j) CH₂:CHCH₂)₂N(+)R₃R₄ (where R₃ and R₄ are independently opt. branched 1-16C alkyl and X is Cl or Br) with 15-95wt.% of a cpd. (I) based on the unsatd. monomer + (I).
(I) is selected from (1) gelatin, cellulose, starch, collagen, chitosans, nitrocellulose or cellulose ether, (2) a polymer, e.g. PVA, PVP, etc., (3) polyethylene glycol or polypropylene glycol, and (4) pentaerythritol. Polymerisation is at ambient temp. to 80 deg.C, in aq. medium in the presence of Ce ammonium nitrate. Compsn. also contains cationic, anionic or nonionic detergent in amt. 5-50wt.%. Polymer is present at 0.1-10wt.%.
Compsn. provides excellent holding power and renders the hair soft and shiny. (16pp)

RICH ★ D21 64085 D/35 ★US 4283-385
Soluble fluoride dentifrice contg. calcium cpd. abrasive - with EDTA or its sodium salt to inhibit fluoride inactivation
RICHARDSON-MERRELL INC 09.05.80-US-148548
B06 E37 (E12 E17) (11.08.81) A61k-07/18
9.05.80 as 148548 (949NS)
Dentifrice comprises 0.1-5 wt.% water-soluble fluoride (I), 5-60 wt.% Ca abrasive (II) and 0.01-5 wt.% EDTA or its Na salt. Pref.

(I) is a monofluorophosphate (MFP), esp. NaMFP. Pref. (II) is Ca carbonate or phosphate. The tetrasodium salt of EDTA is the pref. salt. A pref. compsn. comprises 0.05-1 (0.1-0.5) wt.% Na₄EDTA, 20-50 (25-45) wt.% CaCO₃ and 0.5-1 (0.75-0.85) wt.%.
Usual detergents, antibacterials, humectants, binders, flavours, etc. may be used. EDTA (salt) is pref. added to the compsn. contg. (II) before addn. of (I) to chelate free Ca.
Ca inactivation of (I) is inhibited by the presence of EDTA (salt), thus giving higher levels of available (I). (4pp)

VSCO/ ★ D21 64086 D/35 ★US 4283-386
Hair grooming treatment - by applying cysteic, cysteine-sulphinic or homo cysteic acid or its salt or metal chelate
VAN SCOTTE J 23.11.79-US-096678 (10.10.78-US-949536)
B05 (11.08.81) A61k-07/06
23.11.79 as 096678 Div.ex 4224339 (1248AT)
Hair grooming is effected by topical appln. of a compsn. contg. 0.2-10% of cysteic acid, cysteine sulphinic acid or homocysteic acid or their chelates with FeCl₃, CuSO₄, CuCO₃, ZnSO₄, ZnO, ZnCl₂, Al chlorohydrate or AlZn sulphate, or their reaction prods. with a alkylamine, alkanolamine, diamine, dialkylamine, dialkanolamine, trialkylamine, trialkanolamine, dialkylalkanolamine or alkylalkanolamine (the alkyl gps. all having 1-10C), a quat. ammonium hydroxide, NaOH or KOH.
The compsns. give the hair excellent grooming and lustre. Their use for treating keratoses, warts etc. as described in US4224339 (Der.73386C/41). (5pp)

See Also

D22 GB 1596651

D22: BANDAGES; DRESSINGS

KEND ★ D22 62361 D/35 ★BE -888-451
Disposable nappy with upper textile layer - impregnated with polymer binder contg. 2 ethyl:hexyl acrylate
KENDALL CO 15.04.80-US-140616
A96 F07 P21 (31.07.81) A41b D04h
15.04.81 as 888451 (510KB)
Disposable nappy has a water-impermeable base sheet, a thickness of absorbent material, and an upper layer in contact with the skin, consisting of a fabric of textile fibres impregnated with a polymer contg. at least 1 wt.% of 2-ethylhexyl acrylate (I). The dryness of the upper layer is improved by the presence of (I). The upper layer is formed by 1 or more natural or synthetic fibre fabrics, pref. polyester fabrics. The wt. of the upper layer is 2-36 g/square m, and the polymeric binder forms not less than 15-50 wt.% of this layer. (I) pref. forms 3-30 wt.% of the polymeric binder, and may be as a homopolymer of (I) mixed with other polymers, or as a copolymer with at least 1 other ethylenically unsatd. monomer, e.g. 1-5C alkyl acrylates, vinyl acetate or chloride, styrene or (meth)acrylic acid. (13pp)

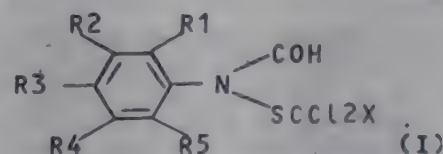
VER D22 94526 X/51 = DS 2525-210
Absorbent material contg. cellulose fibres and thermoplastic binder - for disposable hygienic articles with high retention of aq. physiological fluids (NL081276)
VER PAPIERW SCHICKEDANZ 06.06.75-DE-525210
A96 F07 P32 P34 (20.08.81) *DE2525-210 A61f-13/18 A611-15
06.75 as 525210 (047HM)
Absorbent material with high capacity for absorbing and retaining aq. physiol. fluids comprises a mixt. of long fibres of natural, regenerated, modified and/or grafted cellulose (70-98 wt.%) and water-soluble linear or cross-linked polyethyleneglycol ether or corresp. copolymers with propylene glycol (30-2 wt.%), compressed (10-100 kp/sq.cm) while warm to obtain small pieces, strips, flakes or slices.
The prods. are esp. useful for surgical dressings and feminine hygiene. DS (6pp)

ADI D22 20583 C/12 = DS 2960-352
Trihalo: sulphenyl formanilide derivs. - useful as fungicides for plant protection, treating paint, wood etc.
BASF AG 06.09.78-DE-838750
C03 E14 G02 + P34 (20.08.81) *EP---8-731 A01n-41/12 C07c-145

New fungicidal N-sulphenylated formanilides are of formula (I), where X is F or Cl; R₁-5 are independently H, halogen, nitro, 1-4C opt. branched, opt. halo-substd. alkyl or alkoxy, CN or -COR₆; R₆ is 1-6C alkoxy or dialkylamino (where alkyl are opt. branched 1-4C, or together with the N form a ring), or R₆ is N alkylamino or N-arylamino (where alkyl is 1-4C and aryl opt. substd by halo or alkyl).

Pref. (I) are prepd. from formanilides (I:SCCl₂X is H) with a CPD. ClSCCl₂X at 0-100 deg.C in the presence of an acid binder, opt. in an organic solvent. Specific (I) are N-(trichloromethylsulphenyl) 2-fluoroformanilide, N-(fluorodichloromethylsulphenyl) (4-methylformanilide, N-(trichloromethylsulphenyl) 2,6-difluoro formanilide, N-(fluorodichloromethylsulphenyl) 2,6-difluoroformanilide, N-(trifluoromethylsulphenyl) 3-chlor 4-fluoroformanilide, and N-(fluorodichloromethylsulphenyl) 3-chlor 4-fluoroformanilide.

(I) are used in fungicides with wide applications i.e. for treating paint dyes and colours, sealants, plastics, wood and as slime-inhibitors in the paper industry. (17pp)



OREA ★ D22 62730 D/35 ★FR 2473-304
Nonwoven semipermeable covers for sanitary pads for menstrual use - to allow ventilation without loss of body fluids
L'OREAL SA 11.01.80-FR-000587
A96 F07 P32 (17.07.81) A61f-13/16
11.01.80 as 000587 (515AT)
The cover of the outer end of a sanitary (menstrual) absorbent pad is made of a material having a porous structure which is impermeable to body fluids but permeable to air.
The cover is made of a non-woven material comprises approx. equal proportions of wood pulp fibres, viscose fibres and a binder resin, at a grammage of 10-100, pref. about 30g/ sq.m, with a coating of silicon (resin) at a loading of 1-5, pref. about 2 g/sq.m. Alternatively the non-woven cover is of (spun-bonded) polypropylene fibres to a grammage of 10-100, pref. about 20g/sq.m, e.g. as made by SODOCA' (RTM). More comfortable,

D 22: BANDAGES; DRESSINGS - p. 42

'cooler' to use than pads with a totally impervious outer cover. If made of the pref. materials, can be sterilised using steam at 120 deg.C. (8pp)

ANIO- ★ D22 62734 D/35 ★ FR 2473-315
Portable aerosol spray unit for disinfecting hospital areas etc. - discharges spray mist via exhaust baffles which release only fine micro-droplets

ANIOS LABS 14.01.80-FR-001134
P34 P42 (17.07.81) A611-09/14 B05b-07/30
14.01.80 as 001134 (448KB)

A tank of liq. contains a partly immersed centrifugal spray rotor turning on a vertical axis. The tank is covered with a hood having an outlet chimney at the top contg. a coaxial exhaust fan rotor.

The inside of the chimney wall is now provided with angled baffle blades. These allow only the finest micro-droplets to leave the chimney, all larger ones being trapped and returned to the tank. (7pp)

CARR/ ★ D22 62793 D/35 ★ GB 1596-369
Ear insert mfr. - by forming thermoplastic sheet over ear impression and casting insert in mould so formed

CARR P J 31.05.78-GB-026028
A32 (A96) (26.08.81) B29d-31

31.05.78 as 026028 (525HM)

Ear insert is made by forming an impression of the ear canal, thermoforming a plastics sheet over the impression to form a mould, and casting a plastics material in the mould to form the final insert.

The impression may be of alginate, rubberised silicone or plastic, and the sheet may be of polycarbonate. The final insert may be of an acrylic such as methylmethacrylate or may be a polycarbonate or a silicone rubber.

A smooth surfaced, non-irritating insert can be easily made. (5pp)

BRPE ★ D22 62806 D/35 ★ GB 1596-651
Levulinic acid recovery from mixts. - via dehydration to alpha-angelica lactone

BP CHEMICALS LTD 14.01.77-GB-001481
E17 H07 M11 (D21) (26.08.81) C07c-59/18 C07d-307/58
06.01.78 as ----- (367RH)

Recovery of levulinic acid $\text{CH}_3\text{COCH}_2\text{CH}_2\text{COOH}$ (I) from mixts. contg. (I) and cpds. of similar b.pt. is carried out by (a) removing low-boiling cpds. from the mixt., (b) dehydrating the residue to convert (I) to its enol lactone, i.e. alpha-angelica lactone (II), (c) recovering a (II)-contg. fraction, and opt. (d) recovering (I) from the (II)-contg. fraction, opt. after removing impurities, by hydrolysing (II) and removing cpds. having a lower b.pt. than (I).

(I) is useful as a microbicide with bactericidal and viricidal activity (e.g. as a disinfectant or for inhibiting mould on food wrappers), as a levelling agent in metal electroplating baths, as a shampoo component, as an antifreeze and as a lubricant grease component. The process allows high-purity (I) or (II) to be recovered from heavy ends remaining after distn. of products from the liq-phase oxidn. of 4-8C paraffins. (4pp)

BRIM ★ D22 62888 D/35 ★ GB 2069-517
Mixt. of liq. methyl methacrylate monomer - and powdered poly:methyl methacrylate used as surgical bone cement

BRISTOL MYERS CO 20.02.80-US-122896
A96 G03 (A14) (26.08.81) C081-33/12 C09j-03/14
19.02.81 as 005225 (1473AT)

An acrylic bone cement compsn. (I) comprises (a) a liq. monomer and (b) a polymer powder. Ratio of (a):(b) is 1:2 (vol/wt.) where (a) is in ml. and (b) is in g. (a) comprises methyl methacrylate monomer and (b) comprises (i) 80% polymethylmethacrylate powder, (ii) 5-15% polymethylmethacrylate powder beads and (iii) a dispersion of 1.8-2.2% high modulus graphite fibres, 85-95% of (i) has a max. average size of 25 microns and beads of (ii) will fall through a 40 mesh, but not through a 100 mesh. Fibres of (iii) have a dia. of 6-15 mic's. and a length of 0.79-7.14mm. within (b), which is to be dissolved in (a) when ready for mixing, (ii) are milled to roughen and break up the surface of the bead. When (a) and (b) are mixed, resulting (I) has viscosity of 1500 poise at 20 deg.C for 6 mins. after mixing and becomes completely hard in 10-11 mins.

The cement is fluid enough to be used in a bone cement injector gun, maintains a low viscosity for a longer period of time than standard pseudoplastic cements and creates a secure interlock at the cement/bone surface. (5pp)

JAPC ★ D22 63001 D/35 ★ J5 6084-832
Heat-resistant fluid absorbent - prepd. by polymerising acrylic monomer in presence of surfactant and water-soluble polyhydric alcohol, and heating and drying

NIPPON SHOKUBAI KAGAKU 11.12.79-JP-159823
A96 P21 P34 (A14) (10.07.81) A41b-13/02 A611-15 B01j-20/26
C081-33/02

11.12.79 as 159823 (55DJ)

Absorbent is produced as follows: an acrylate type monomer (C) which consists of 10-40 mol% of acrylic acid and 60-90 mol% of alkali metal acrylate is polymerised in an aq. soln. of at least 30wt.% in the presence of a water soluble and/or water dispersible surfactant (A) and water soluble polyhydric alcohol (B) so that it becomes gel-state hydrated polymer, then the obtd. polymer is heated and dried so that an absorbent consisting of alkali metal polyacrylate bridged polymer is obtd.

The ratio of (A) and (B) to (C) is 0.01-10pts.wt. and 0.005-20 pts.wt. respectively to 100 pts.wt. of (C).

The absorbent can be widely used for sanitary napkins, paper diaper etc. It can be produced industrially and relatively cheaply. It does not contain any impurities such as organic solvents or inorganic salts. (8pp)

DAIK ★ D22 63002 D/35 ★ J5 6084-833
Shaped adsorbent for treating waste gas - obtd. by mixing asbestos fibre with active carbon and shaping to honeycomb structure

DAIKIN KOGYO KK 13.12.79-JP-162346
J01 (10.07.81) B01j-20/28

13.12.79 as 162346 (51KB)

The body is produced by mixing an asbestos fibre with active carbon of 0.053-0.149mm particle size to obtain a mixt., shaping the mixt. to a paper type substance of below 300 g/sq.m., and shaping the substance to a honeycomb type structure.

In an example, 29g of asbestos was mixed with 29g of active carbon powder to obtain a mixt. The mixt. was shaped to a paper type substance of 0.25mm thickness. The paper type substance was press-shaped to obtain a wave type substance. The wave type substance was concentrically rolled to obtain a honeycomb type adsorbing body. Air is introduced with a blower through a pipe into toluene of a bomb. The air contg. toluene is introduced through a pipe into a honeycomb type adsorbing body to remove toluene from the air. (4pp)

KOJK ★ D22 63016 D/35 ★ J5 6084-701
Liq.-absorbent polymer prodn. - by reacting cationic polysaccharide and anionic polysaccharide

KOHJIN KK 14.12.79-JP-161525
A11 P32 (A96) (10.07.81) A61f-13/18 C08b-15 C08b-31 C08b-37
14.12.79 as 161525 (78HM)

Prodn. of absorbent comprises reacting cationic polysaccharide (I) with anionic polysaccharide (II) to produce polymer high in liq.-absorbing power. The polysaccharide is pref. natural polysaccharide (deriv.). (I) is pref. (glycol) chitosan or cellulose deriv. e.g. aminocellulose. (II) polysaccharide is pref. vegetable gum, Na alginate, pectic acid, heparin, carboxymethylated starch, sulphonated starch or cellulose deriv. e.g. CMC. After mixing and reacting (I) aq. soln. with (II) aq. soln., hydrophilic solvent selected from (m)ethanol, isopropanol and Me_2CO is added to the soln. and the ppte. is sepd. and dried. The (II) aq. soln. and (I) aq. soln. are mixed and reacted to obtain compounded matter and the mixed soln. is dried to obtain concd. liq. or powdery compsn. contg. the compounded matter. The high mol compounded matter pref. consists of xanthane gum and chitosan, glycol chitosan or cellulose deriv.

The absorbent is high in absorbing power and safety. It is easy to decompose and is useful for sanitary napkins and paper diapers. (6pp)

SANK- ★ D22 63140 D/35 ★ J5 6085-
Secondary pollution-free deodorant prodn. - by mixing satd. liq. sulphate soln. with ppte. from acid clay, calcium chloride and sulphuric acid, and treating with kainite extract

SANKO SANGYO KK 15.12.79-JP-163298
P34 (11.07.81) A611-09/

15.12.79 as 163298 (117DJ)

A deodorant is obtd. from a series of a closed system process comprising a process in which iron sulphate is satd. at 80 deg.C in water, cooled, and then filtered to obtain the first liq. process in which the main components of kainite ore are extracted by a satd. soln. of kainite at 80 deg.C and then the extract is filtered to obtain the second liq.; a process in which acid clay and calcium chloride are treated with a 10% sulphuric acid soln. and then filtered to obtain ppte.; a process in which

which the second liq. is cooled to 50 deg.C and then mixed with the third liq. with stirring to obtain a deodorant contg. iron phosphate as the main component and traces of inorganic components such as Ca, Al, Na, Mn, Cu, etc.
The deodorant has a great power to deodorise offensively odorous substances present in sewage, garbage, etc., effectively and quickly without causing any sec. pollution. (3pp)

DSH ★ D22 63194 D/35 ★ J5 6086-106
Synergistic slime controlling mixt. - comprising 4,5-di:chloro-1,2-dithiol-3-one and 2 bromo-2-nitro:propane-1,3-di:ol
YOSHITOMI PHARM IND KK(KATA-) 14.12.79-JP-163327
C03 (13.07.81) A01n-33/18 A01n-35/02
12.79 as 163327 (5DJ)
Slime-controlling agent contains (a) 4,5-dichloro-1, 2-dithiol-3-one and (b) 2-bromo-2-nitropropane-1,3-diol as the effective ingredients.
Even if 2-bromo-2-nitropropane-1,3-diol(b) is decomposed, the 1m. decomposed product bromonitroethanol also shows strong sterilising effect. The synergistic effect can be attained at using a component (a) and (b) with the weight proportion of (a):(b) is greater than 1 pref. 1:4-6.5. The slime-controlling agent can be used by dissolving the components (a) and (b) in hydrophilic solvent and adding surfactant in the soln. Thus obtd. slime-controlling agent is added in water so that the concn. of effective ingredients is several ppm.
The components (a) and (b) show the synergistic effect and the slime-controlling agent shows strong sterilising effect durably with smaller application dosing compared with conventional slime-controlling agent. (6pp)

TU D22 57476 T/36 = J8 1032-940
Sutures - with long lasting germicidal properties
SUTURES INC 03.06.71-US-149826
A96 F06 P34 (31.07.81) *ZA7106-935 A611-17
01.72 as 010623 (KB)
Sodn. of suture with long-lasting germicidal properties comprising providing a suture of synthetic polymer, treating the suture to provide the polymer with nucleophilic gps., contacting the treated suture with a first aq. soln. of first germicidal salt including a germicidal ion, and further contacting the suture with a second aq. soln. of a second germicidal salt including a germicidal ion having a charge opposite to that of the germicidal ion of the first germicidal salt.
The ions are capable of reacting in aq. soln. to form a highly insol. germicidal precipitate. (J48005292) (4pp)

IK- D22 76449 B/42 = J8 1033-103
Deodoriser for e.g. pyridine - contains abietic acid, its alkali metal salt, its organic base salt and its ester or amide
SEIKEN KAGAKU KK 02.03.78-JP-022845
A97 E19 P34 (01.08.81) *J54117-031 A611-09/*
03.78 as 022845 (108AT)
Deodorant contains as active components abietic acid, its alkali metal salt, its organic base salt, its ester or its amide. In an example, 4 g. of abietic acid, 40 g. of polyoxyethylene oleyl ether 155 ml. of water are mixed to prepare the deodorant.
The active component has a good deodorising effect against substances such as formalin, pyridine and hydrogen sulphide. The present deodorant is safely handled and can be prepared at low cost.
Abietic acid is found in natural resin such as rosin and dammar, and can be extracted. Its derivatives include esters with methanol, ethanol, hydroxyethanol, hydroxyethylsulphonic acid, hydroxyacetic acid, polyethylene glycol; amides with ethanol amine, diethanolamine and glycine; alkali metal salt and organic base. Examples are ethanolamine salt, methyl ester, sodium salt, ethyl ester, glyceride, ethanolamide, ethanolamide and polyoxyethylene ester. The water-soluble ester cpd. is used in the form of an aq. soln., and is made water-soluble using a solubilising agent such as polyoxyethylene glycol ether and then used in the form of aq. soln. Further, the ester cpd. can be used in solid form such as powder. It is possible to add diluent such as kaolin or talc. (J54117031) (5pp)

RE D22 54525 C/31 = J8 1033-104
Air release air aromatising compsn. - comprises aq. soln. of a molecular substance contg. perfume component
KUREHA CHEM IND KK 15.12.78-JP-155498
A97 P34 (01.08.81) *J55081-655 A611-09/04
2.78 as 155498 (5RH)
Air releasing aromatiser comprises aq. soln. of water soluble molecular substance of viscosity 500-30000 cPs. (1000-20000) (by B-type viscometer), at room temperature.
The aromatiser is packaged in a vessel and used under open air. After a while, the aroma is gradually decreased and the

aromatiser.

As water soluble high molecular substance PVA, CMC, methoxycellulose, sodium arginate, xanthane gum, etc. can be used. As the perfume either oil soluble perfume and water soluble perfume can be used. (J55081655) (2pp)

UCHI/ D22 21065 Y/12 = J8 1033-367
Plaster contg. antiinflammatory and analgesic agents - formed from lanolin to which a rubber and adhesive are added

UCHIMURA K 30.07.75-JP-092793
A96 B07 (03.08.81) *J52018-812 A61k-09/70
30.07.75 as 092793 (33DJ)

Method comprises adding an antiinflammatory and analgesic agent slowly to molten lanolin while stirring and heating, and mixing the resultant mixt. well with a natural rubber and/or a synthetic rubber or an adhesive agent. Examples of the antiinflammatory and analgesic cpd. are menthol, camphor, methyl salicylate, thymol and borneol.

The plaster is effective for treatment of various inflammation such as rash, poisoning, dropsy or itching. It is stable during long storage without softening or changing in its quality. Also the absorbency from the skin is good. (J52018812) (2pp)

MEIJ D22 44484 U/32 = J8 1033-373
Alkyl 2,3,3-triiodoallyl ethers - with antimicrobial activity used as disinfectants, poultry feed additives and swine dysentery

MEIJI SEIKA KHA LTD 18.12.72-JP-126273
B05 C03 (03.08.81) *DE2263-121 C07c-43/17 + C07c-41/*
18.12.72 as 126273 (DJ)

Cpds. of formula (I) (I)2C = CICH2OR (where R is Me, Et, n-Pr or i-Pr), are prep. by (a) reacting propargyl alcohol (II) with a 1-3C alkyl sulphate or sulphonate in the presence of a base to give HCCCH2OR, reacting this (or its Cu salt) with iodine and then with at least 1 equiv. of iodine; or (b) reacting (II) with iodine in the presence of an alkali metal hydroxide in an inert solvent to give 2,3,3-triiodoallyl alcohol, and treating this with an alkylating agent in a polar aprotic solvent or converting it into a reactive deriv. and reacting with ROM (where M is alkali metal) or with ROH in the presence of a base. (J49082613) (3pp)

VIBR- ★ D22 D/35 ★ SE 8000-093
Mattress sterilisation plant cycle - uses water suction to separate sterilising gas from circulatory system

VIBRASUG AB 07.01.80-SE-000093
P34 (10.08.81) A611-02/20
07.01.80 as 000093 (1161WB)

The sterilisation plant is for mattresses and the like, and comprises a chamber with a base on which the items are placed. Also provided is a circulation system with a fan, a pressure union from the fan to the chamber, and a suction line from the chamber back to the fan.

The sterilisation cycle involves a gas-filling phase, a sterilising phase, at least one emptying phase, ventilation and closure phases. During emptying, the gases are sep. from the circulation system using water suction, with simultaneous introduction of filtered air into the system.

VLPE = ★ D22 63635 D/35 ★ SU-785-465
Inhibition of sulphate-reducing bacteria growth in oil strata - using mixed hydrogen, chlorine and hypochlorite from salt soln. electrolysis

VOLG PETRO IND INST(NIZH =) 05.10.78-SU-671055
H01 Q49 (17.12.80) E21b-43/22
05.10.78 as 671055 (835VE)

Sulphate-reducing bacteria growth in the oil-bearing strata is completely suppressed by electrolysis salt water forced into the well, so that Cl₂ enters the stratum. The antibacterial treatment efficiency is improved by mixing all the hydrolytic products, H₂, Cl₂ and NaOCl, for despatch into the stratum. Apart from Cl₂ and NaOCl, H₂ is also an effective bactericide.

By using all the products of electrolysis, the electrolytic equipment is simplified and casing columns or pump-compressor tubes can be used as cathodes, with a single cable current carrier. The anode is a graphite cylinder, 27 mm. by 330 mm. It was shown that 2 mg/l Cl and NaClO killed the bacteria completely in a vol. of 150 cu.m. Treatment is conducted for 6 hrs., using 25 cu.m./hr. salt water and a 60A current. Bul. 45/7.12.80 (2pp)

JOHJ ★ D22 63965 D/35 ★ US 4282-874
Disposable diaper - has film with holes located between loosely compacted top pad and denser bottom pad

JOHNSON & JOHNSON 11.05.79-US-038370
P21 (11.08.81) A41b-13/02
11.05.79 as 038370 (6HM)

The assembly of top pad, perforated film and bottom denser pad is located between a permeable facing sheet and a waterproof

back sheet, the denser bottom pad tending to draw from the loosely-compacted top pad through the holes in the perforated film. Pref. the higher density of the bottom pad is provided by a paper-like highly-compacted layer next to the back sheet.

Outward flow of liquid through the facing sheet is prevented by the high liquids-retention of the denser bottom pad. (7pp)

PROC ★ D22 64053 D/35 ★ US 4283-301
Bleaching compsns. contg. peroxy cpds. - with long-chain acyl cpds. as activators

PROCTER & GAMBLE CO 02.07.80-US-165461

A97 (11.08.81) C11d-07/54

02.07.80 as 165461 (367HM)

Bleaching compsns. comprise (a) 1-70 wt.% of a peroxy cpd. selected from H₂O₂, urea peroxide, alkali metal peroxides, perborates, percarbonates, perphosphates and their mixts., and (b) 1-90 wt.% of an activator of formula RCOZ (I) or ZCOR'COZ (II) (where R is a 5-13C hydrocarbonyl gp. contg. 0-10 ethylene oxide gps., provided that R contains at least 2 ethylene oxide gps. when it has more than 9 C atoms; R' is a 4-24C hydrocarbon radical contg. 0-10 ethylene oxide gps., provided that R' contains at least 2 ethylene oxide gps. when it has more than 12 C atoms; each Z is a leaving gp. having a pK_a of 5-20 and a molecular wt. of less than 175, selected from OC(R₂)=CHR₃, 1-cyclohexenyloxy, CR₃(X)₂, 1-X-2-oxocyclohexyl and 1-X-2-oxocyclopentyl, where each R₂ is 1-9C alkyl, each R₃ is H or 1-8C alkyl, and each X is COOR₂, CON(R₃)₂, CN, NO₂ or SO₂R₂).

The compsns. are safe, stable and highly effective at relatively low temps. (e.g. 10-60 deg.C). (9pp)

ELIL ★ D22 64072 D/35 ★ US 4283-349
Di:benz-(be)-(1,4)-oxodinium salt derivs. - useful as antimicrobials, pesticides, defoliants and herbicides

ELI LILLY & CO 21.05.79-US-041283 (04.04.63-US-270545)

B02 C02 E13 (11.08.81) A01n-37 C07c-59/08 C07c-143/24

21.05.79 as 041283 Div.ex 4193935 C.i.p. 3506719 (+19.7.67, 4.3.70, 2.3.73-US-654656, 016589, 337345) (1248AT)

Dibenz-(be)-(1,4)-oxodinium 3,4-dichlorobenzenesulphonate (I) and 3,7-dichlorodibenz-(be)-(1,4)-oxodinium lactate (II) are new.

(I) and (II) are antimicrobials effective against a wide range of bacteria, fungi, algae etc. and are suitable for use as preservatives, e.g. in paints, food, lotions and lotions, and as disinfectants. They are also pesticides, esp. effective against protozoa and nematodes, at higher concns., and at much higher concns. they are defoliants or herbicides. (5pp)

MERI ★ D22 64092 D/35 ★ US 4283-397
7-Cationic heterocyclyl:amino-4-carboxy cephalosporin derivs. - useful as antibacterials for human and veterinary medicine

MERCK & CO INC 01.08.79-US-062836

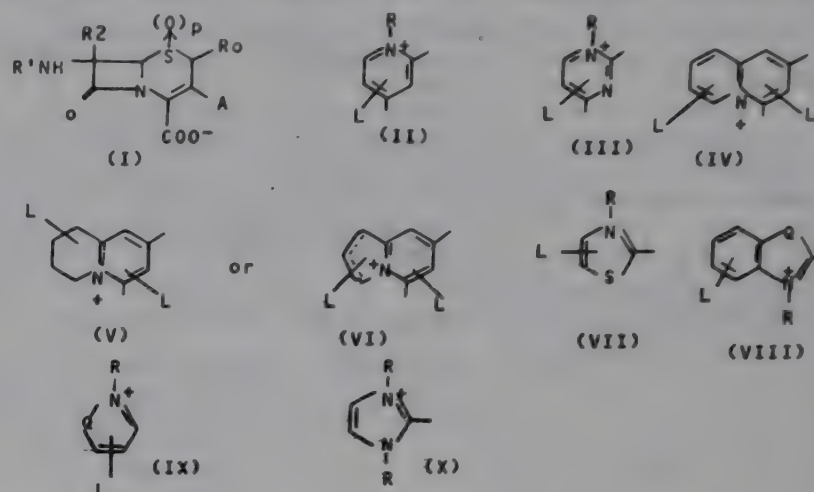
B02 C02 (11.08.81) A61k-31/54 C07d-501/14

01.08.79 as 062836 (1251DJ)

Cephalosporin derivs. of formula (I) and their pharmaceutically acceptable salts and esters are new. (p is 1 or 2. Ro is H or methyl. R₂ is H or methoxy. R' is a gp. of formula (II)-(X). In (II)-(VI) it can be attached at either of the positions shown Q is oxygen or sulphur. L is 0-3 of chloro, fluoro, hydroxy, carboxy, sulphy, cyano, amino (opt. mono- or di-alkyl substd.), alkoxy or 1-6C alkyl opt. substd. by carboxy, cyano, 1-6C alkoxy, phenyl or phenoxy. R is H, 1-6C alkyl (opt. substd. by chloro, fluoro, hydroxy, 1-6C

alkoxy, carboxyl, amino (opt. mono- or di- (1-6C) alkyl substd.) or sulphy, or is 7-12C phenylalkyl or phenylalkenyl opt. substd. by chloro, fluoro, carboxy, amino, cyano, hydroxy or sulphy. A is -CH₂S.T, CH₂T', H, chloro, methoxy, CH=CH.CO-O-M + or 1-pyridinium methyl (opt. 4-aminocarbonyl substd.) with Y counter-anion. T is tetrazol-5-yl substd. at 1-position by methyl, CH₂COOM, CH₂CH₂SO₃M or 2-dimethylaminoethyl; 2-(methyl or CH₂COOM)-1,3,4-thiadiazol-5-yl; or 1-methyl-2-hydroxymethyl-1,3,4-triazol-5-yl. T' is H, aminocarbonyloxy, acetoxy, hydroxy or bromo. M and Y are pharmaceutically-acceptable ions).

(I) are useful as antibacterials in human and veterinary medicine, and are effective against gram positive or negative species. They can also be used as disinfectants, feed additives and industrial microbicmicobicides. (49pp)



CIBA D22 22353 C/13 = US 4283-444
Protection of keratin-contg. materials against insects - using insecticidal 5-phenylcarbamoyl-barbituric and thiobarbituric acid derivs. (BE 11.3.80)

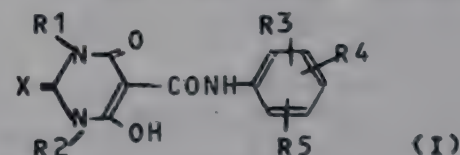
CIBA GEIGY CORP 12.09.78-CH-009545

C02 E13 F06 (11.08.81) *DE2936-457 A01n-43/54

06.09.79 as 073048 (963HM)

Protection of keratinous materials from insect attack comprises treating the material with 5-phenylcarbamoyl barbituric acid cpds. of formula (I) or their tautomers or salts. X is O or S; R₁ and R₂ are 1-4C alkyl; 3-4C alkenyl; benzyl; or phenyl opt. substd. by 1-4C alkyl, 1-4C alkoxy, Cl, Br, F, NO₂ or trihalomethyl, but at most 1 NO₂ and at most 2 trihalomethyl and alkoxy; R₃ is halogen, NO₂ or trihalomethyl; R₄ is H, halogen or trihalomethyl; and R₅ is H, halogen, CH₃ or CH₃O.

Compsn. may also contain synthetic pyrethroids, esters of alpha-alkyl-subst. phenylacetic acids of subst. sulphanilides (20pp)



See Also

D13 US 4282863

D23: OILS; FATS; WAXES

HENK D23 60652 D/34 = EP -83-928
Alkyl-subst. 1,3-dioxolan used as perfume components - for perfume compsns. used for scenting cosmetics and technical prods.

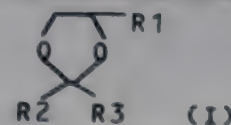
HENKEL KG AUF AKTIEN 08.02.80-DE-004661

E13 (19.08.81) *DE3004-661 + C11b-09

02.02.81 as 100715 (200BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Alkyl-subst. 1,3-dioxolans having formula (I), (where R₁ is 4-12C alkyl; R₂ is H, 1-7C alkyl, 5-8C cycloalkyl or cycloalkenyl or opt. alkyl-subst. aryl; R₃ is H or 1-3C alkyl) are used as perfumes. Perfume compsns. contg. 1-50 wt.% (I), w.r.t. total compsn., are claimed. (I) can be prep. by the acid-catalysed acetalation of R₂- and R₃-contg. carbonyl cpds. with 6-14C 1,2-diols, and removal of water of condensation by azeotropic distn. with a solvent or by reaction of the water with an orthoformic acid tri-ester.

or toothpaste, and (ii) technical prods., e.g. detergents, cleansers, disinfectants and textile auxiliaries. (I) have a strong, mainly fruity fragrance and combine well to new perfume notes. (13pp)



FIRM ★ D23 62608 D/35 ★ EP -83-929
Ethyl-tri:methyl-oxa-spiro:deca:diene deriv. - useful as current flavour and fragrance

FIRMENICH SA 08.02.80-CH-001013

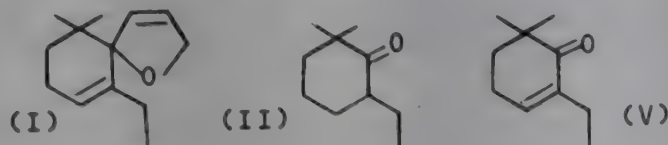
E13 (19.08.81) A231-01/22 C07d-307/94

06.02.81 as 100860 (367DJ) (F) FR2319640 DE2634077 1.Jm E(CH DE FR GB LI NL)

1-Ethyl-2,10,10-trimethyl-1-oxaspiro(4,5)deca-3,6-diene

CHMe-OR (III), hydrolysing the prod. and reacting with proton source. M is alkali metal or MgX where X is halogen. R is R' or MgX where R' is trialkylsilyl, tetrahydropyranyl, t-Bu, 3-oxa-2-pentyl or 3-oxa-2-butyl. It can also be prep'd. from (V) by reacting with (III), hydrolysing, catalytically reducing with hydrogen, and reacting with proton source.

(I) is useful as a blackcurrant flavour or fragrance, e.g. in perfumes or perfumed products (soaps, detergents, cosmetics, etc.) or in blackcurrant or other fruit syrups. It imparts a fresh fruity aroma and fruity-woody taste without sulphurous notes. (17pp)



NIOF ★ D23 62891 D/35 ★ GB 2069-520
Sepn. of components of fatty mixt. - by rapid cooling, then fractional warming

NIPPON OILS & FATS KK 07.01.80-JP-000029
(26.08.81) C11b-07

07.01.81 as 000330 (678HM)

A specific component (I) is sep'd. from a mixt. of fatty components as follows: (a) mixt. is solidified by cooling with an ultra-low temp. refrigerant; (b) solidified mixt. is heated to, or just above, the freezing pt. of the component (II) of the mixt. with the lowest freezing pt.; (c) the melted fraction (i.e. mainly (II) is sep'd.; and (d) the steps (a)-(c) are repeated in order to separate other components of the original mixt. in ascending order of their freezing pts.

Rapid process uses simple appts. and has high fractionation efficiency. The process is useful e.g. for the isolation of unstable substances such as highly unsatd. fatty acids (esp. omega 3 C22:6 and C20:5 acids from fish and liver oils). (6pp)

MUKO- ★ D23 63541 D/35 ★ J8 1032-357
Oil or fat deodorisation - by steam distn., with condenser and cyclone separator connected between distn. column and barometric condenser (J5 1.5.76)

MUKOYAMA KAGAKU KOG 30.10.74-JP-124452
(27.07.81) C11b-03/14 C11b-13

30.10.74 as 124452 (83HM)

In deodorising oil or fat using steam distn. column (I) and barometric condenser (II), an improvement comprises connecting a combination of condenser (III) and cyclone separator (IV) between (I) and (II), and keeping the combination at 120-130 deg.C by indirect heating with steam to separate fatty acid from steam distillate in liq. state. (J51050307) (4pp)

MITU D23 41057 X/22 = J8 1032-898
Oil vegetable seeds or microbes treated - to obtain a soluble protein from which a milk like food can be prep'd.

MITSUBISHI CHEM IND KK 15.10.74-JP-118388

(D13 D16) (30.07.81) *J51044-661 A23c-11 A23j-01/14 A23l-01/20

15.10.74 as 118388 (NS)

In aqs. soln. contg. metal ion chelating agent (e.g. polyphosphoric acid, citric acid, phytic acid or its Na, K salt, etc.) and/or reducing agent (e.g. ascorbic acid, erysolic acid, sulphurous acid or its Na, K salt, etc.) is dipped oil vegetable seed or microbes, and after water absorption the mixture is heated to at least 70 deg.C crushed, and cellular content is extracted.

The method is used for seeds contg. oxidizing enzyme e.g. soyabeans, peanuts, cotton seeds, sesame, rape seeds, etc., and yeasts, bacterial moulds, algae, etc. Oil seeds or microbes so treated are turned into homogeneous soln. or edible bean curd refuse. Such material contains large amount of soluble protein, scarcely odourous, and fit for use as material for making foodstuff like milk. (J51044661) (5pp)

NFL D23 24567 W/15 = J8 1032-965
Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - prep'd. by reacting 5-oxo-1,3-cyclohexadienes with olefinic acetylenic dienophiles

INT FLAVORS & FRAGR INC 01.10.73-US-402157

E15 (31.07.81) *DE2443-191 A23l-01/22 A61k-07/46 C07c-35/27

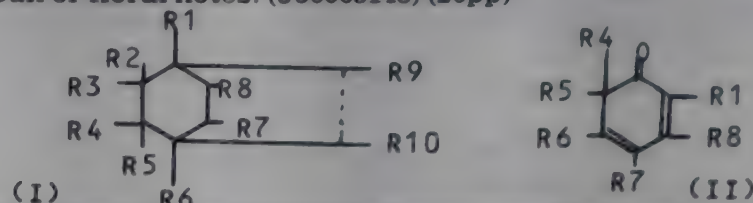
C07c-69/75 C07c-121/48

1.10.74 as 112357 (NS)

Derivs. of formula (I) (where ---- is opt. double bond; one of R2 and R3 is H or lower alkyl and the other is H or OH, or R2 + R3 is oxo; R4 and R5 are lower alkyl; R1 and R6-8 are H or lower alkyl; and one of R9 and R10 is H, lower alkyl, CN, lower carbalkoxy or

other than H), e.g. 1,3,3,4,5,6-hexamethyl-bicyclo (2,2,2) oct-5-en-2-one, are new cpds. (I; R2 + R3/ oxo), are prep'd. by reacting cpds. of formula (II) with dienophiles of the formula: R9-CH:CH-R10 (III) or R9-CC-R10 (IV).

(I) are useful for modifying or improving the organoleptic props. of various materials, e.g., to impart woody, camphor, patchouli or floral notes. (J50063148) (26pp)



GIVA D23 69752 V/40 = J8 1032-978
Perfumery components and modifiers - contg 5-(3- or 4(alkanoyloxymethyl)-1 cyclohexenyl)-2-methyl-2-pentene or pentane

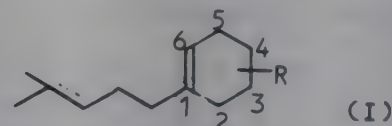
GIVAUDAN L & CIE SA 15.03.73-CH-003759

E15 (31.07.81) *DE2407-817 A61k-07/46 C07c-67/08 C07c-69/02

14.03.74 as 029587 (AS)

Perfumery components of formula (I) (where R is 1-3C alkanoyloxymethyl in posn. 3 or 4 and the dotted line denotes an opt. C-C bond), or their isomers, are prep'd. by 1-3C acylating cpd. (II) having formula (I; where R is -CH2OH), or an isomer mixt. thereof, and opt. hydrogenating the exocyclic double bond, before or after acylation.

Pref. cpds. are (I) where R is -CH2OAc, esp. 5-(3- or 4-(acetoxymethyl)-1-cyclohexenyl)-2-Me-2-pentene (I1 and I11). (I) are useful in mfg. or modifying perfumes and perfuming compsns., e.g. soaps, cosmetics, detergents and aerosols. (J49125341) (5pp)



CEPA ★ D23 63631 D/35 ★ SU-785-403
Raw tallow oil prodn. for paper textile etc. mfr. - by decomposition of black lye from sulphate soap with organic acids sep'd. during process

CELLULOSE PAPER IND RES 14.07.78-SU-645727

F09 (27.12.80) C09f-01/02 D21c-11

14.07.78 as 645727 (70VE)

Raw tallow oil is obtd. by sepg. from a partly evaporated black lye the crude sulphate soap and decomposing it with an acid at 60-70 deg.C; subsequently three layers are sep'd., viz. the top layer consisting of the raw tallow oil, the medium layer contg. the mother liquor, and the bottom layer contg. lignin.

This process is simplified by using for the decomposition a mixt. of volatile 1-5C fatty acids and hydroxy acids, sep'd. from the mother liquor by dialysis at a current density of 50-140 mA/sq.cm. (3pp)

UNIL D23 74334 X/40 = SU-786-912
De-waxing triglyceride oils - by adding a strong acid or anhydride, followed by water and removing the sludge obtd. (BE100976)

UNILEVER NV 10.03.75-GB-009862

C03 E17 (D13) (07.12.80) *DE2609-705 C11b-03/04

10.03.76 as 334806 (GW)

Triglyceride oils which are fluid at 40 deg.C. are clarified by dispersing a conc. acid/anhydride, whose pH as a 1M aqs. soln. is at least 0.5 at 20 deg.C., in the oil then dispersing 0.2-5 wt.% water in the mixt. and sepg. the aqs. sludge obtd. after the oil, water and acid have been in contact for at least 5 mins. at less than 40 deg.C. Esp. to remove residual phosphatides from vegetable oils.

The sep'd. process is economically viable as only small amts. of acid/anhydride are used and these are sep'd. with the sludge. Water pollution is minimised. Separate refining stages for the removal of sugary components and Mg-/Ca- contg. components are not necessary. Citric acid is the pref. acid as the acid sludge can be used as animal fodder and the lecithin in the prodn. of foodstuff emulsifiers. Bul. 45/7.12.80. (8pp)

KIFO = ★ D23 63747 D/35 ★ SU-787-876
Oleaginous seeds laboratory extractor - has vertically moved housing inside centrifugal filter with shared bottom

KIEV FOOD IND TECHN 24.10.78-SU-678545

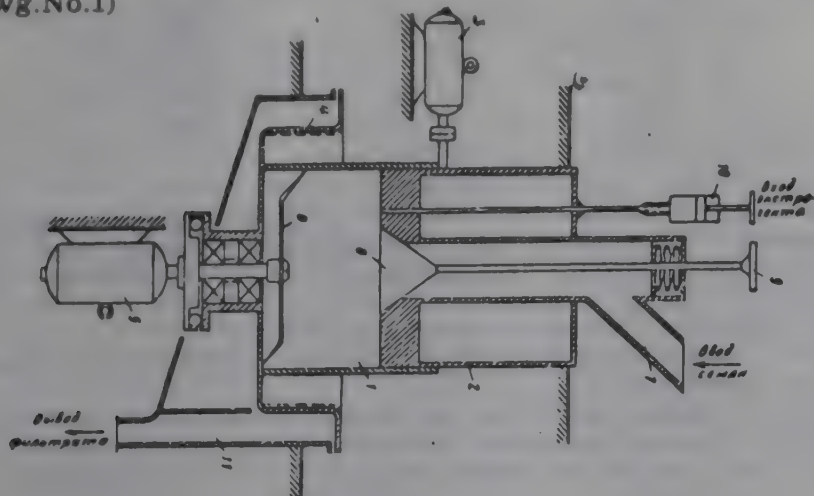
J04 S03 (15.12.80) C11b-01/10 G01n-33/02

24.10.78 as 678545 (89WD)

Prevention of losses during the transfer of micelles from the extractor to the filter of the laboratory unit is ensured by the

vertically moved housing inside the filter. It shares with the latter a common bottom while the filter is revolving.

The extractor chamber I is lowered to the bottom of the centrifugal filter 4 and the sample of the oleaginous seeds is loaded through valve 8. The seeds are ground by the driven blades 6 followed by spray of extracting agent through metering unit 10. The treatment ends with lifting of the chamber I leaving the mixture at the bottom of filter 4. Bul.46/15.12.80. (3pp Dwg.No.1)



NISW **D23** **80243 Y/45 #US 4283-346**
Removal of fat or oil from clay used in decolourisation - by slurring with water and alkali and heating under pressure

NISSHIN OIL MILLS KK 25.03.76-JP-031946 (09.03.77-US-776043)

(11.08.81) *J52115-806 + C11b-03/04

08.01.79 as 001575 (393AS)

Recovery of oil from oil-contg. clay which has been by-produced in the decolouration of animal and vegetable oil and fat with decolouring agent consisting mainly of the clay, is described. Method involves (a) adding to the oil-contg. clay, water and alkali is amt. corresp. to at least the saponification value relative to the oil content to obtain a slurry, (b) treating the slurry at 110 deg.C or more under high pressures of above 5 kg/cm² to strip the oil

portion, (c) adding an acid in amt. sufficient for neutralisation to cause formation and surfacing of the oil portion primary as fattyids, and (d) sepg. the day- contg. aq. lower phase into clay sludges and waste water.

Clay sludges and waste water after recovery of the oil can be easily disposed without causing environmental contamination. (3pp)

HENK **D23** **38630 C/22 = US 4283-561**
Aldehyde perfume mixt. prepn. - by alpha-terpinene hydroformylation using phosphine and phosphine-contg. rhodium carbonyl complex catalyst mixt.

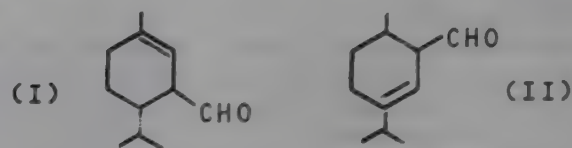
HENKEL KG AUF AKTIEN 16.11.78-DE-849642

E15 + P34 (11.08.81) *EP--11-273 C07c-47/42

14.11.79 as 094277 (982WB)

Mixt. of aldehydes of formula (I) or (II) obtd. from hydroformylation of alpha-terpinene is new. The mixt. is used as a perfuming agent with salicylate and cuminal note and have good retentivity.

In an example, alpha-terpinene, triphenyl phosphine, RhCl(CO)(P(C₆H₅)₃)₂ and THF were mixed together. A gaseous mixt. of H₂ and CO was added under a pressure of 200 bar. The components were heated under stirring, kept at 130-140 deg.C. for 5 hours and cooled. THF was distilled off to give the mixt. of (I) and (II). (3pp)



See Also

D13 GB 1596251

D24: SOAP; SOAP DETERGENTS

UNIL ★ **D24** **62653 D/35 ★EP --34-047**
Alkali metal carboxylate prodn. from acid or fat - by reaction with alkali hydroxide in acetone in presence of inorganic salt

UNILEVER LTD 24.07.80-GB-024323 (07.02.80-US-119225)

E12 H07 (19.08.81) C11d-09/02 C11d-13/02 C11d-17/06

05.02.81 as 300490 (1251HM) (E) GB1303976 GB1343506 GB3657146 US3622516 GB-985219 GB1043453 E(AT BE CH DE FR GB IT LI NL SE)

Prod. of alkali metal carboxylate (I) comprises saponifying the corresp. acid and/or its ester with conc. aq. alkali hydroxide soln. in presence of an inorganic salt and in a reaction medium comprising acetone. (I) are recovered from the reaction mixt., then freed of any excess acetone. Pref. starting materials are 6-24(12-18)C fatty acids or glyceride esters, and the pref. alkalis are 20-50wt.% NaOH or KOH, or is LiOH.

(I) are soaps and (Li salts) lubricating greases. They are prod. in finely-divided, dry form, at lower temp. than usual and without needing a drying stage. They can be easily deodorised or bleached without adverse effect on quality, and the inorganic salt improves yields (90% or more). The starting materials are more soluble in acetone than in acetonitrile previously proposed. (I) can also be used to make the corresp. free acids which are useful in animal feeds. (20pp)

D25: OTHER DETERGENTS

WACK/ ★ **D25** **62412 D/35 ★DE 3004-835**
Cleaning water-resistant surface e.g. wheels - using self-acting aq. fluid contg. tetra:potassium pyrophosphate, surfactant mixt., solvent and solubiliser

WACK O 09.02.80-DE-004835

Q17 (20.08.81) B60s-01 C11d-03/44

09.02.80 as 004835 (200BZ)

Self-acting cleansing fluid for cleansing water-resistant surfaces contains, by wt., 10-25% K₄P₂O₇, 0.5-5% anionic tenside, 1-10% nonionic tenside, 1-5% solvent, 0.01-1% fluoro-tenside, 1-20% solubiliser and pref. desalinated water to 100%. The fluid can also contain 0.02-1% alcohol, 1-15% amphoteric tenside and 0.1-1% surfactant. The fluid contains 20% K₄P₂O₇ 2.7% alkyl

0.03% n-butanol, 0.05% fluoro-tenside, 11% Na xylene-sulphona 0.1% Na₂CrO₄ and desalinated water to 100%.

The fluid can be used for the cleansing of car wheels by m spraying and rinsing. Other surfaces cleaned are plastics leather. The fluids have high fluidity and can loosen dirt surfaces. (6pp)

BADI ★ **D25** **62483 D/35 ★DE 3005**
Butoxylated ethylene oxide adduct to higher alcohol - used as foaming biologically degradable surfactant in dish-wash compns.

BASF AG 14.02.80-DE-005515

A97 E17(A25) (20.08.81) C11d-01/66

(10.12.80 as 005515 (200AT))

oxyated 8-20C alkanol with 1,2-butylene oxide, in molar ratio 6 to 1:2.4, are used in biologically decomposable and low-filming washing- and rinsing compsns.

The 8-20C alkanols advantageously show low branching and are epd. esp. by the Ziegler- or oxo-synthesis. A 10/12C cut, obt'd. by the Ziegler synthesis is partic. suitable. Clear rinse compsns. can contain, by wt. 7-50% (I), 1-20% diol, 1-20% alkyl sulphonate and 0-10% acid component. (I)' are used esp. in clear- rinse step of industrial dish-washing machines, e.g. in hotel kitchens. Biological degradation exceeds 80%. (8pp)

DLV **D25** **79421 B/44 = DS 2960-343**
Articles contg. polylactone and bicarbonate - disintegrating rapidly in water, useful in cleaning, washing and bleaching compsns.

SOLVAY & CIE 24.04.78-FR-012255
A97 E34 (E35) (20.08.81) *EP---4-997 C081-33/02 C081-67/04 C11d-03/37

04.79 as 960343 Based on EPG004997 (922WB)
Polylactone (I) particles containing an alkali metal or ammonium bicarbonate (II) and useful in powdered washing, cleaning and bleaching compsns. are claimed. The particles are produced by dry mixing (I) and (II) having an average diameter 2-50 microns and containing less than 10 wt.% water. The compsns. contains 3-20 wt.% (II), pref. NaHCO₃ and (I) are pref. derived from polyhydroxycarboxylic acids whose main chain contains units of formula -(CR₁R₂-C(OH)CO₂H)- (where R₁ and R₂ are each H or 1-3C alkyl). Compsns. contg. (I) do not separate out in aq. media. (8pp)

INO * **D25** **62566 D/35 ★EP --33-760**
alkoxylation of alcohol using basic barium or strontium catalyst - promoted by pre-reaction with e.g. polyol, phenol, carboxylic acid, amide etc.

CONOCO INC 04.02.80-US-118176
A25 E19 F09 (A97) (19.08.81) B01j-23/02 B01j-31 C07c-41/03
10.80 as 106310 (1251HM) (E) EP--20867 EP--18463 E(BE DE FR SE)

6 (4-20)C alkanols are alkoxyated in the presence of (a) basic and/or Sr catalysts and (b) at least one catalyst promoter (A), added to the catalyst at up to 175 deg.C before reaction. (A) is a 2-C polyol, aldehyde or ketone, a 1-30C amide, amine, or organic acid; or a 6-30C phenol; all having b.pt. over 1000 deg.C. Some monohydric alcohols (A') of pKa below 17 can also be used as promoters.

Pref. alkoxylation is with ethylene and/or propylene oxides, and specified catalysts are Ba or Sr metals, or their hydrides, oxides, and (hydrated) hydroxides used at at least 0.1 wt.% on alcohol being reacted.

The alkoxylation prods. e.g. detergents, builders, polishers, sanitizers and dry cleaning agents, and can also be used in paper and fibre industries. They have a narrow adduct distribution, low contents of by-prods. and unreacted alcohol, and pre-formed catalyst reduces reaction time. (34pp)

EM **D25** **80646 D/34 = EP --33-775**
Phonic acid separation from paraffin sulphoxidation prod. - by n. with aromatic alcohol and separation from alcoholic phase
CHEM WERKE HULS AG 08.02.80-DE-004651
E14 (19.08.81) *DE3004-651 C07c-139
12.80 as 107658 (200HM) (G) US4177208 1.Jnl.Ref E(BE FR GB NL)

Phonic acids are separated from a reaction mixt. obt'd. by the light-catalysed reaction of paraffins with SO₂, O₂ and water, extn. with an aromatic alcohol having formula R₁-(CR₂R₃)-n, (I), (where R₁ is Ph opt. subst'd. by halogen atoms and/or 1-6C alkyl gps. R₂ and R₃ are H and n is integer 1-3. R₂ can also be Me and n is 1). The middle alcoholic phase is separated from the top paraffin- and the bottom aq. H₂SO₄-contg. phases and the phonic acids are isolated from the alcoholic phase. The free sulphonic acids or their alkali- or alkaline earth salts are used in detergent prepn. The sulphonic acids can be separated from H₂SO₄ as well as from unreacted paraffin in 1 p. (10pp)

KI- * **D25** **82577 D/35 ★EP --33-815**
Device for scavenging random dyes in laundry baths - is cellulose substrate impregnated with quat. ammonium cpd.

DIXIE YARNS INC 06.02.80-US-119154
E19 (19.08.81) C11d-01/82 C11d-17/04
0.80 as 401557 (1251HM) (E) No-Citns. E(DE FR GB IT)
The scavenger device consists of a cellulosic substrate plus a scavenger of formulae

CH₂CHOH-CH₂N⁺(R)₃Y⁻(I)
(II). In the formulae X is halo; Y is Cl, Br, sulphate or phosphate; the R's are (m)ethyl, butyl or benzyl, opt. subst'd. by phenyl; the Y's are (m)ethyl, butyl or benzyl, opt. subst'd. by phenyl.

or paper, esp. they are impregnated with glycidyltrimethylammonium chloride (IIa). (I) and (II) are pref. applied from a slightly alkaline aq. soln., esp. one contg. 4-10wt.% scavenger and 10g per l NaOH.

The use of these devices for controlling undesirable random dyes or colourants in liq. baths is also claimed. The devices prevent discoloration of textiles and improves their colour brightness when introduced into liq. laundry baths being used to wash textiles having different colours. They can be used repeatedly, e.g. in domestic washing machines, and will also remove dye from rinse waters. (13pp)



PROC * **D25** **62647 D/35 ★EP --34-039**
Liq. detergent contg. draining promoting nonionic surfactant - and suds stabilising nonionic, giving reduced filming and spotting
PROCTER & GAMBLE CO 30.01.81-US-230143 (05.02.80-US-118705)

A97 (19.08.81) C11d-01/83 C11d-03/32
04.02.81 as 300459 (1251HM) (E) US3963649 US4144201 DE2536107 DE2715351 DE2424856 E(BE DE FR GB IT NL)

Aq. detergent compsn. comprises 10-50wt.% anionic surfactant (I); 2-20wt.% ethoxylated nonionic surfactant, comprising a drainage-promoting surfactant (III) plus 1.5-10% sudo-stabilising surfactant (IV), and 0-10% (in)organic builder salt.

(III) is at least one of R(OC₂H₄)_nOH (R is 16-30C aliphatic hydrocarbyl, or 18-30C alkylphenyl with at least one at least 12C alkyl gp.; n is 16-100); a condensation prod. of a mono 16-22C fatty acid polyglycol ester or of cholesterol with 13-100 moles ethylene oxide (EO); or an EO-propylene oxide (PO) condensate with a cpd. contg. reactive amine or hydroxy gps., the condensate having mol. wt. 500-1500 and EO and PO contents each 30-70wt.%.

(IV) is at least one of R₁CON(H)m-1. (R₂OH)₃-m and R₃(EO)_n.N(O)R₄R₅ (R₁ is 7-21C opt. unsatd. aliphatic hydrocarbyl; R₂ is (m)ethylene, m is 1-3; R₃ is (2- or 3-hydroxy)alkyl or 3-alkoxy-2-hydroxypropyl, all alkyl and alkoxy have 8-18C; R₄ and R₅ are 1-3C alkyl or 2-3C hydroxyalkyl; n is 1-10).

The compsns. are used to clean tableware, kitchenware and other hard surfaces, and produce less filming and spotting when washed articles are rinsed and drain-dried. (23pp)

UNIL * **D25** **62654 D/35 ★EP --34-048**
Cleaning and depositing perfume on surfaces - by washing with detergent compsn. contg. particles of perfume in amine matrix
UNILEVER LTD 07.02.80-GB-004108 (07.02.80-GB-004106)

E16 (19.08.81) C11d-01/40 C11d-03/50
05.02.81 as 300491 (1251AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

A surface is cleaned and perfume (I) deposited on it by treating with an aq. soln. contg. (I) plus 0.05-8.5 g per l of a water-soluble detergent (II), opt. together with builder. (I) is incorporated at 0.005-0.3g per l in the form of 0.1-2000(10-500)micron particles made up of (a) 0.5-50wt.% (I) and (b) 50-99.5wt.% one or more water-dispersible amines RNR₁R₂ (III) as matrix. (R is 8-22C alk(en)yl; R₁ is H or 1-4C alk(en)yl, R₂ is H, or 1-22C alk(en)yl or aminoalkyl). The matrix contains no added cationic material. The surfaces are treated pref. for 1-60 min. at 20-90 deg. C.

Solid and liq. compsns. contg. (II), opt. a builder, the (I)-contg. particles, plus (for liqs.) at least 20wt.% liq. base, are also claimed.

The compsns. are used to clean fabrics, ceramics, plastic laminates, metals and glass, and leave a pleasant after-smell on such surfaces. (28pp)

BOSC **D25** **82365 A/46 = GB 1596-313**
Automatic domestic washing process - replaces perborate bleach by stabilised hydrogen peroxide and catalyst
BOSCH-SIEMENS HAUSG 29.04.77-DE-719235
E36 (E13) (26.08.81) *DE2719-235 D06f-39/02 D06l-01/12 D06l-03/02

02.02.78 as 004188 (924HM)
Textiles are laundered in an automatic washing machine by introducing the articles into the machine, washing the articles at up to 60 deg.C with a perborate-free washing powder, adding to the water a liq. bleaching agent and an activator reactable in the water with the bleaching agent to accelerate the bleaching action in dependence on oxygen release, and bleaching the articles at the washing temp. for up to 90 minutes.

Pref. bleaching agent comprises hydrogen peroxide stabilised with dipicolin acid. Pref. activator is N-acetyl, caprolactam. The washing process gives excellent results with no appreciable risk involving the use of hydrogen peroxide in the household. (6pp)

PROC D25 76324 A/43 = GB 1596-756
Washing powder detergent compsn. - contg. phosphate, poly:phosphonic and poly:carboxylic acids

PROCTER & GAMBLE LTD 16.09.77-GB-038724 (22.04.77-GB-016945)

A97 E37 (26.08.81) *BE-866-245 C11d-03/80 + C11d-01/02

21.04.78 as ----- (982AS)

A built detergent compsn. having a pH of 0.5% aq. soln. of less than 11.5, comprises (a) 1-90% of an organic anionic, nonionic, amphoteric and/or zwitterionic detergent; (b) 1-70wt.% of a phosphate builder selected from orthophosphate, pyrophosphate and/or tripolyphosphate salts; and (c) at least 0.2% of a builder auxiliary comprising a mixt. of (i) up to 4% of a polyphosphonic acid or its salt and (ii) up to 4wt.% of a homo- or co-polymeric polycarboxylic acid or its salt. The polycarboxylic acid has a formula comprising at least 2 carboxyl gps. sepd. by not more than 2C atoms.

Compsn. has improved cleaning whiteness maintenance performance. Washing machine scaling and fabric ash deposition are reduced. (19pp)

LIOY ★ D25 63069 D/35 ★ J5 6084-797
Liq. detergent compsn. with good stability at low temps. - contains anionic surfactant, urea and tri:ethanolamine

LION CORP 08.11.79-JP-144811

(10.07.81) C11d-01/14

08.11.79 as 144811 (126AT)

A liq. detergent compsn. contains 3-30 wt.% anionic surfactant formula OS-M (where OS is a 10-16C straight chain acid gp. alpha-olefinsulphonate; M is an alkali (ne earth) metal, more than 1 wt.% urea; and 0.3-1.0 mole triethanolamine per 1 mole anionic surfactant.

The liq. detergent compsn. has superior stability at low temp. without using a solvent e.g. ethanol, ethylene glycol etc., or stabiliser e.g. sodium benzene sulphonate etc. and is not decolourised when it is stored for a long time. Sodium alpha olefin sulphonate (AOS-Na) has higher lathering effect and detergency as a component of the liq. detergent as compared with LES-Na (Na salt of polyoxyethylene alkylether sulphuric ester) or AS-TEA (triethanolamine salt of alkyl sulphate), but the Kraft pt. (the temp. where the solubility of a surface active agent in water is rapidly increased) is higher. When triethanolamine is added the Krafft pt. is reduced to e.g. 0 deg.C. Decolourisation because of the presence of triethanolamine is prevented by the addn. of urea. (5pp)

NKKC ★ D25 63356 D/35 ★ J5 6086-998
Detergent compsn. - contg. opt. quaternised poly:amine cpd. prepd. by reacting hydroxyalkyl-amine with benzyl chloride and reacting with alkylene oxide

NIKKA KAGAKU KOGYO 18.12.79-JP-163459

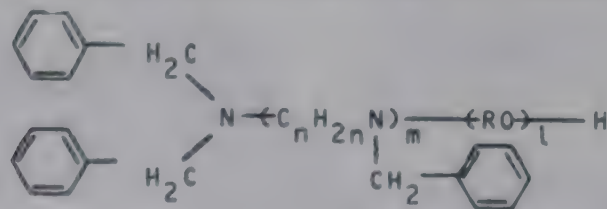
E14 (15.07.81) C11d-01/62 D06l-01/12

18.12.79 as 163459 (126DT)

A detergent compsn. contg. at least one cpd. of formula and/or a quat.ammonium compd. obtd. by quaternising it. R is an ethylene group or propylene group; l is between 2 and 1000; m is 1 to 4; and n is from 1 to 3.

(I) is obtd. by allowing an amine cpd. having a hydroxyethyl or a hydroxypropyl group with benzyl chloride to prepare an amine cpd. having a substd. amine group, and adding alkylene oxide to the amine deriv. The cpd. can be quaternised with dimethyl sulphate or benzyl chloride. Pref. amine cpd. used as the raw material for the reaction is (di)ethanolamine, aminoethyl ethanolamine, etc. Pref. alkylene oxide is ethylene oxide or propylene oxide.

Since the detergent of this invention has superior detergency compared to prior detergent compsn., the amt. to be used in the detergent compsn. can be reduced. The superior detergency of the detergent compsn. may be attributed to its superior affinity to dyestuffs capable of extracting the molecules of the dyestuff in the liq. and its superior solubility for the molecules of the dyestuff and superiority of the dispersivity for the dirt component. (5pp)



NIOF ★ D25 63357 D/35 ★ J5 6086-
Detergent compsn. - contg. N-polyoxyalkylene fatty acid amide and anionic or nonionic surfactant

NIPPON OILS & FATS KK 17.12.79-JP-162844

A97 E16 (A25) (15.07.81) C11d-01/66

17.12.79 as 162844 (126RH)

A detergent compsn. is claimed contg. the following surfactant components (A) and (B) in (0.05-2)/1 wt. ratio: (A): polyoxyalkylene fattyacidamide of formula RCONR'-(CH2CH2O)nH (where R is 7-21C alkyl; R' is H or CH3, R is H or CH3; n is 15). (B): one or more anionic or nonionic surfactant. synergistically increased detergency is obtd. by the use of (A) a detergent compsn. having superior resistance to hard water also obtd. Softness of the washed prod. is not spoiled even by repeated washing using compsn. (6pp)

LIOY ★ D25 63358 D/35 ★ J5 6087-0
Liq. detergent compsn. - contg. anionic surface active agent, amine oxide, alkali metal halide and inorganic salt

LION CORP 18.12.79-JP-164356

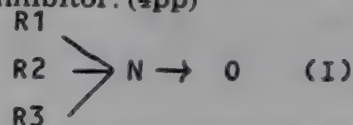
E37 (E16) (15.07.81) C11d-01/02 C11d-03/02 C11d-10/02

18.12.79 as 164356 (126AS)

Compsn. comprises (a) 5-40 wt.% anionic surface active agent; (b) 1-10 wt.% amine oxide; (c) 0.5-5 wt.% alkali metal halide; and (d) 0.04-1.5 wt.% of at least one inorganic salt selected from sulphites, phosphates, and thiosulphates.

Pref. the amine oxide is of formula (I) (where R1 is 10-20C n-alkyl branched alkyl and R2 and R3 are each (m)ethyl. Inorganic salt is pref. an alkali metal salt.

Since the compsn. contains mono-long chain alkyl amineoxide in addn. to an anionic surface active agent, its detergency is superior and its effect to the skin is mild. Alkali metal halide improves preservative properties and inorganic salt component acts as a corrosion inhibitor. (4pp)



COLG D25 40484 D/23 = US 4283-1
Carboxamide N-substd. with long-chain sec. aliphatic hydrocarbyl gp. - used as non-yellowing antistatic agent in textile washing compsn.

COLGATE PALMOLIVE CO 26.11.79-US-097467

E16 F06 + P43 (11.08.81) *DE3043-618 C11d-03/32 D06m-13, + B08b-03

26.11.79 as 097467 (393HM)

Antistatic compsn. for laundering fabrics comprises 2-25 wt. carboxamide antistatic agent of formula (I); RNHCOR' (where R is sec. aliphatic hydrocarbon contg. at least 8C and R' is H or 1 alkyl) and anionic, nonionic, ationic, ampholytic or zwitterionic agent.

Pref. the compsn. also contains optical brighteners and builders and (I) is absorbed on a carbonate base bead comprising Na16C03, Na2CO3 and silicate solids.

(I) are non-yellowing and do not reduce optical brightening performance of the compsn. (8pp)

UNIL D25 27738 C/16 = US 4283-1
Particulate alkaline detergent contg. tri:poly:phosphate - act. to spray-dried powder of other components, giving reduced deposition in washing machines

LEVER BROTHERS CO 03.10.78-GB-039074

A97 E34 (11.08.81) *EP---9-952 C11d-03/06 C11d-11 + C11d-17/06

01.10.79 as 080845 (937NS)

Particulate alkaline detergent compsn. contg. at least 5% by wt. synthetic detergent active cpd. or its mixt. at least 5 % by wt. alkali metal tripolyphosphate pref. of Na and 3-10% by wt. alkali metal orthophosphate pref. monosodium dihydrogen disodium monohydrogen or trisodium or the phosphate or mixt. and no more than 2.5% by wt. alkali metal pyrophosphate prep. by spray drying a detergent base powder contg. some or all of the detergent active cpd. or cpds. and some or all of alkali metal orthophosphate and admixing at least 5% by wt. of alkali metal tripolyphosphate in particulate form with spray dried powder with the remainder if any of alkali tripolyphosphate being spray dried in the base powder.

The compsn. contains total amt. of tripolyphosphate and orthophosphate is 15-25 % by wt. The compsn. reduces inorganic deposits on heater elements and other surfaces of washing machines. (6pp)

UNIL D25 06715 D/05 = US 4283-302
Particulate bleaching compsns., esp. washing powders - contg. tetra:acetyl ethylene-di:amine activator of specified granulometry

LEVER BROTHERS CO 06.07.79-GB-023765
E16 (11.08.81) *BE-884-208 C11d-07/54
07.07.80 as 166639 (937NS)

Particulate bleach compsn.comprises 3-99.5% by wt. particulate inorganic peroxy bleach cpd. pref. sodium perlorate and 0.25-50% by wt. tetraacetyl ethylene diamine (TAED). The TAED has a particle size distribution as determined by sieve analysis of 0-20% greater than 150 microns 10-100% between 100-150 microns, 0-50% less than 75 microns and 0-20% less than 50 microns. The TAED is contained in granules in combination with granulating agent pref. of Na and K triphosphate mixt. giving a granule size of 100-2000 microns and comprising 10-99% by wt. TAED. Pref. the compsn. contains 0.05-5 % by wt. stabilising agent chosen from ethylenediamine tetra(methylene phosphonic acid, diethylene triamine penta methylene phosphonic acid their water soluble salts.

The compsn. is in low temp. bleach which does not suffer from significant sedimentation and/or dissolution problems neither suffering decompsn. problems during storage. (6pp)

SCMZ ★ D25 64070 D/35 ★ US 4283-347
Para-menthene-7-sulphonic acid and salts - useful as detergents and surfactants and for resolution

SCM CORP 27.02.80-US-125151 (21.02.78-US-879127)
B05 E15 (11.08.81) C07c-143/22
27.02.80 as 125151 Div.ex 4224240 (+ 13.4.79-US- 029858) (1248AT)

Para-menth-1-ene-7-sulphonate salts with an alkali(ne earth) metal, amine, Zn or Al and the free acid are new. The salts are useful as detergents and surfactants, and they are intermediates in the prepn. of beta-phellandrene. The free acid may be used as a resolving agent.

The acid and salts are prepd. as described in US4224240 (Der. 73342C/41). (3pp)

MONA- D25 57234 C/33 = US 4283-542
Phosphorus-contg. surfactants mfr. - by reacting amine with phosphate or phosphite ester

MONA INDUSTRIES 30.11.78-US-965459
E11 (11.08.81) *EP--13-713 C07f-09/09

30.11.78 as 965459 (974AS)

Phosphobetaine cpds. are produced by reacting in aq. medium, a tert. reactant of at least 6C to produce an amphoteric phosphobetaine surfactant having at least one P-contg. anion in the molecule. The phosphate ester reactant is of formula Z.Y.O.PO(A).B.

Z is halogen. A is O-, OM or OYZ. B is O- or OM, but A and B are not both O-. Y is alkylene of up to 12C, opt. interrupted by up to 3 O and opt. substd. by lower alkyl, alkoxy, OH or hydroxyalkyl. Each M is H, up to 6C (hydroxy)alkyl, up to 10C polyhydroxyalkyl, glyceryl, up to 6C cycloalkyl, aryl, up to 10C aralkyl, alkali metal, alkaline earth metal or mono-, di- or tri-ethanolamine, but both M are not organic. (44pp)

- ABBO 07.01.80 ABBOTT LABORATORIES B04 D16 = FR 2473-060
Stabilisation of peroxidase in serum protein based medium - 19303D/11
- * ADUM- 13.03.79 ADUMIM CHEM LTD D11 E12 (E17) *IL --56-861
Dough additives - D/35
- AERA- 21.04.78 AERATION INDS INC D15 J02 = BR 7908-409
Aeration of liquid by pumping past gas nozzle - 85934B/47
- AGEN 12.01.80 AGENCY OF IND SCI & TECH B05 D16 (B03) = FR 2473-519
Terpenoid(s) having antiulcer activity - 36369D/21
- AGRO- 22.12.74 AGROTECHNICA N P D15 = IT 1051-391
Effluent purification process - 53464X/28
- * AGRO- 09.01.80 AGROPROTEINE IND D13 *FR 2473-271
Prodn. of forage by pressing and dehydrating vegetable matter - 62724D/35
- AIDA/ 20.03.78 AIDA H B05 D16 = J8 1032-915
Fermentative prodn. of coenzyme/Q-10 - 81733B/45
- AIDA/ 29.05.78 AIDA H B05 D16 = J8 1032-916
Coenzyme/Q prodn. - 11619C/07
- * AIGE= 07.02.79 AIGZARDSK WINE WKS D16 *SU -787-466
Lorry held grapes sampler - 63802D/35
- * AIRA/ 03.01.79 AIRAPETYANTS G M A31 D12 T06 X25 (A97) *SU -785-385
Plastics, e.g. sausage skin, prodn. process control - 63629D/35
- AIRP 09.10.79 AIR PRODUCTS & CHEM INC D15 = DK 8004-215
Waste water treatment with activated biomass - 29374D/17
- AJIN 25.00.73 AJINOMOTO KK D13 E16 = J4 9091-829
Sweetness of citrus fruit increased - 63554D/35
- * AJIN 25.00.73 AJINOMOTO KK D13 E16 *J8 1032-961
Sweetness of citrus fruit increased - 63554D/35
- AJIN 11.03.77 AJINOMOTO KK D13 = J8 1033-068
Prepn. of dry bean curd used e.g. in instant soups - 80925A/45
- AJIN 20.07.77 AJINOMOTO KK B02 D16 E11 (D13) = J8 1032-918
Inosine-5'-mono:phosphoric acid prepn. - 24726B/13
- AJIN 08.03.78 AJINOMOTO KK B02 D16 E13 = J8 1033-079
Fermentative prodn. of L-tryptophan - 78166B/43
- AJIN 02.10.78 AJINOMOTO KK D13 = J5 5048-353
Soybean protein extn. from soln. or suspension - 63553D/35
- * AJIN 02.10.78 AJINOMOTO KK D13 *J8 1032-893
Soybean protein extn. from soln. or suspension - 63553D/35
- AJIN 13.12.79 AJINOMOTO KK B05 D16 E16 = J5 6085-289
High yield microbiological prodn. of L-valine - 48062D/27
- * AJIN 14.12.79 AJINOMOTO KK B05 D16 E16 *J5 6085-290
L-Glutamic acid fermentative prepn. - 63133D/35
- * AJIN 08.02.80 AJINOMOTO KK B05 D13 E19 *EP --34-034
Nutrient compsn. contg. eighteen aminoacid(s) - 62644D/35
- * ALFA 30.11.79 ALFA-LAVAL AB D12 *SE 7909-929
Fish meal and oil centrifuge - 63598D/35
- * ALLE- 26.02.79 ALLEGHANY PHARMACAL A96 D21 G03 *US 4282-877
Hair remover - 63967D/35
- * AMAN 12.12.79 AMANO PHARM KK B04 D16 E17 *J5 6085-300
Determn. of free fatty acids - 63137D/35
- AMCY 28.08.79 AMERICAN CYANAMID CO B04 C03 D16 (D13) = J5 6085-254
Antibiotic BM123-gamma pantoate complex prepn. - 19611D/12
- * ANIO- 14.01.80 ANIOS LABS D22 *FR 2473-315
Portable aerosol spray unit for disinfecting hospital areas etc. - 62734D/35
- * ANON 20.07.81 ANONYMOUS B03 D13 E13 *RD -208-003
Protected ascorbic acid prepn. - 63572D/35
- * ANON 20.07.81 ANONYMOUS D13 *RD -208-026
Protein hydrolysates sepn. from sludge contg. hydrolysis mixts. - 63585D/35
- * APVC 15.02.80 APV CO LTD D14 *GB 2069-311
Heat treating particulate material - 62823D/35
- * ASAH 13.12.79 ASAH CHEMICAL IND KK B02 D16 E13 *J5 6085-291
L-Tryptophan prodn. using microorganism - 63134D/35
- * ASAH 14.12.79 ASAH CHEMICAL IND KK B02 D16 *J5 6085-298
7-Amino-cephem cpd. prodn. - 63136D/35
- ASMI= 28.01.80 AS USSR MICROORG BI D22 #DD -148-555
Sterilisation of liquid media by steam - 53363D/29
- * AUPH= 28.12.78 AS UKR PHYS CHEM B02 D16 *SU -787-027
Hydroxy-bromo-chloro-phenyl di:hydro-benzodiazepinone - 63668D/35
- AUTA- 19.05.72 AUSTRIA TABAK D18 = IT 1051-430
Reconstituted tobacco foil - 76152U/50
- * AUTE= 07.04.76 AS UKR TECH HEAT PH D16 *SU -787-458
Microorganisms culture foam breaker - 63799D/35
- * AUTE= 17.02.77 AS UKR TECH HEAT PH D16 *SU -787-457
Microorganisms culture liquid aeration control - 63798D/35
- * AVON 04.12.79 AVON PRODUCTS INC A96 D21 G02 (A14) *US 4283-324
Nitrocellulose-free nail enamel compsn. - 64061D/35
- BADI 06.09.78 BASF AG C03 D22 E14 G02 = DS 2960-352
N-Tri:halo:sulphenyl formamide derivs. - 20583C/12
- BADI 12.10.79 BASF AG A96 C03 D22 (A14) = DK 8004-302
Prepn. of stable polyvinyl pyrrolidone-iodine - 32883D/19
- * BADI 14.02.80 BASF AG A97 D25 E17 (A25) *DE 3005-515
Butoxylated ethylene oxide adduct to higher alcohol - 62483D/35
- * BAEN- 19.02.80 TETRA WERKE BAENS U C03 D13 *DE 3006-158
Enriched cereal grain bird food prodn. - 62545D/35
- * BAKP 19.02.80 BAKER PERKINS LTD D11 *GB 2069-306
Travelling baking oven - 62820D/35
- * BCRC 14.12.79 BRIT COLUMBIA RES D12 *J5 6085-239
Prodn. of canned fish food product - D/35
- * BECK/ 09.01.80 BECKERICH C J G D15 *FR 2473-344
Transportation skip for draining liq. from wet sewage sludge etc. - 62736D/35
- * BECT 10.10.78 BECTON DICKINSON CO D16 *US 4283-495
Cells culture method - 64129D/35
- BEHW 22.12.73 BEHRINGWERKE AG B04 D16 = IT 1051-437
Cholera-gen-prodn. from culture filtrate solns. - 44652W/27
- * BEIG/ 20.07.78 BEIGLER M A B05 C03 D13 (D22) *US 4282-863
Stable, dry packaged, sterile nutrient compsn. - 63964D/35
- * BEIN/ 17.01.80 BEINING R D16 *DD -148-643
Green hot processing for brewing - 62390D/35
- * BELU 22.01.79 BELORUSSIAN LENIN UNIV A91 D15 J01 (A11 A14) *SU -787-415
Water-soluble redox polymer prodn. - 63784D/35
- * BENC 15.02.80 BENCKISER-KNAPSACK A97 D18 *DE 3005-699
Neutralising mineral-tanned leather, esp. chrome leather - 62518D/35
- BERG/ 06.11.69 BERGE J M A C D13 = IT 1051-236
Filtering device for curdled milk in cheese - 33188S/19
- BEWA- 04.12.68 INST BEWARING LANDB D13 = DS 1959-624
Deep-frozen potato product - 39762R/22
- BIOR- 01.11.79 BIO-RESPONSE INC B04 D16 = J5 6085-287
Monoclonal antibody prodn. - 38549D/22
- * BIOT- 05.04.76 BIOTECHN PROC LTD D13 (D12) *GB 1596-271
Textured protein foods prodn. from spun protein fibres - 62784D/35
- * BIOT= 11.08.78 BIOTECH RES INST D16 S03 *SU -787-456
Microorganisms culture control - 63797D/35
- * BODD/ 25.11.70 BODD I V D16 *IT 1051-233
Appts. reducing electrolytes content of wines - D/35
- * BOEF 00.00.78 BOEHRINGER MANNHEIM GMBH B04 D16 *DE 3005-540
Plasma heparin biological activity determn. - 62486D/35
- BOIT- 07.04.72 BOITEKNIKA INT INC D16 (D15) = J8 1033-078
Microbiological degradation of polychlorinated diphenyls - 64290U/43
- * BONA- 20.03.80 BON AQUA D15 *US 4283-283
Activated carbon cup shaped water filter - 64046D/35
- BORD 31.08.79 BORDEN INC D13 X25 = J5 6085-242
Reducing titratable acidity and ash content of whey - 78727C/44
- BOSC 29.04.77 BOSCH-SIEMENS HAUSG D25 E36 (E13) = GB 1596-313
Automatic domestic washing process - 82365A/46
- * BOSC 13.02.80 BOSCH R GMBH D15 J01 M14 *DE 3005-249
Closed cycle exchanger resin regeneration - 62457D/35
- BRAU- 15.01.80 BRAUN O K KG A96 D22 F04 = FR 2473-568
Knitted elastic support bandage - 38195D/22
- BRBL 04.12.79 BRAUNSCHWEIG MASCH D17 = FR 2473-551
Massecuite centrifuge - 44222D/25
- BRIM 15.04.76 BRISTOL MYERS CO B03 D16 = SU -786-914
Musettamycin and marcellomycin antibiotics - 57458Y/32
- * BRIM 20.02.80 BRISTOL MYERS CO A96 D22 G03 (A14) *GB 2069-517
Mixt. of liq. methyl methacrylate monomer - 62888D/35
- * BRPE 14.01.77 BP CHEMICALS LTD D22 E17 H07 M11 (D21) *GB 1596-651
Levulinic acid recovery from mixts. - 62806D/35
- BRPE 09.06.77 BP NUTRITION UK LTD C03 D13 = GB 1596-758
Liq. fish protein food prod. for pigs - 20321B/11
- BRTA 13.11.79 BRIT AMER TOBACCO LTD D18 E14 J01 = J5 6084-631
Filter for removing nitric oxide, esp. from tobacco smoke - 21478D/13
- BRTO 04.02.77 BOC LTD D15 = GB 1596-311
Single tank purificn. of waste water with oxygen - 40439A/23
- BUCY 02.12.74 BUCKEYE CELLULOSE CORP A96 D22 F04 = IT 1051-016
Rustless laminated web comprising three matted fibre webs - 46410X/25
- * BUSA/ 16.09.70 BUSAG D13 *IT 1051-237
Agent eliminating turbidity of fruit and vegetable juices and drinks - D/35
- * CADB 04.11.77 CADBURY LTD D13 *GB 1596-765
Egg-shaped confectionery article - 62815D/35
- * CALH- 12.02.80 CALHENE SA D16 J04 K07 S03 (S05) *EP --34-096
Safety device for ventilation and filtration circuit - 62676D/35
- CALI 06.03.73 CHEVRON RESEARCH CO A97 C03 D16 (D13 D15) = IT 1051-432
Removing pesticide residues - 66577V/38
- CALP- 25.02.77 CALPIS FOOD IND CO D13 = GB 1596-443
Stable fermented milk beverage prepn. - 65589A/37
- * CANN= 08.02.79 CANNING IND RES INS D13 *SU -786-965
Horse-radish sauce prodn. - 63664D/35
- * CANN= 26.02.79 CANNING IND RES INS D11 *SU -786-964
Expanded cereal flakes prodn. - 63663D/35
- * CARN- 14.04.77 CARNATION CO D11 *US 4283-430
Filled tubular baked food prod. - 64103D/35
- * CARR/ 31.05.78 CARR P J A32 D22 (A96) *GB 1596-369
Ear insert mfr. - 62793D/35

CATT/

- CATT/ 09.10.79 CATTANIL D11 = DK 8000-543
Machine for making edible rolled material - 30995D/18
- CELA 28.08.78 CELANESE CORP A88 D18 (A11) = US 4283-186
Cigarette filters - 26944A/15
- CELA 23.05.79 CELANESE CORP A88 D18 (A11 A32) = US 4282-890
Cellulose acetate foam cigarette filter rod - 68589B/38
- *CEPA 14.07.78 CELLULOSE PAPER IND RES D23 F09 *SU -785-403
Raw tallow oil prodn. for paper textile etc. mfr. - 63631D/35
- CESK 02.01.80 CESKOSLOVENSKA AKAD D13 J04 = FR 2472-952
Nickel-based catalyst e.g. for hydrogenating vegetable oils - 52130D/29
- CHAM/ 17.10.78 CHAMBERS J M D16 (D17) = BR 7908-857
Cooking starchy material with reduced steam demand - 34585C/19
- CHEM 08.02.80 CHEM WERKE HULS AG D25 E14 = EP --33-775
Sulphonic acid separation from paraffin sulfoxidation prod. - 60646D/34
- CIBA 12.09.78 CIBA GEIGY CORP C02 D22 E13 F06 = US 4283-444
Protection of keratin-contg. materials against insects - 22353C/13
- CIBA 17.09.79 CIBA GEIGY AG B07 D13 G06 = J5 6086-193
Gelatin with reduced viscosity but rapid setting time - 23824D/14
- CIBA 20.09.79 CIBA GEIGY AG C03 D22 E19 F06 (C02 D21 F09) = J5 6084-716
Polymeric quat. ammonium salts from di:epoxide and di:amine - 25925D/15
- CIBA 16.11.79 CIBA GEIGY AG D21 E14 (D22 E17) = J5 6084-799
Soap-bar contg. halogenated ortho-hydroxy di:phenyl ether - 42469D/24
- *CIPA- 07.02.80 CIPARICIE INT SA D16 *EP --33-987
Control of rate of yeast supply to prod. fermenting vessel - 62622D/35
- COAG- 19.08.77 COMML AGRICOLA D14 = IL --55-361
Mixing and distributing machine for farm animal fodder - 89679A/50
- *COGE 11.01.80 CIE GEN ELECTRICITE D13 (D16) *FR 2473-313
Constant pressure bacterial filter partic. to sterilise milk or wine - 62733D/35
- COKE 03.08.71 COCA-COLA CO D13 = IT 1051-428
Powdered foods and beverages - 11592U/09
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E12 J01 = BR 8007-550
Extracting oil from aq. detergents, esp. sodium lauryl sulphate - 25436D/15
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E16 F06 = US 4283-192
Carboxamide N-substd. with long-chain sec. aliphatic hydrocarbonyl gp. - 40484D/23
- COLG 03.12.79 COLGATE PALMOLIVE CO D22 = DE 3044-449
Absorbent pad such as sanitary towel or baby's napkin - 25453D/15
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = FR 2473-544
Soap bars contg. anti-cracking agent - 32609D/19
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = FR 2473-545
Soap bars contg. anti-cracking agent - 32610D/19
- COMS 01.03.78 COMMISS ENERGIE ATOMIQUE D16 J04 K07 = DS 2960-332
Automatic handling appts. for weighing - 65030B/36
- *CONA/ 09.11.79 CONAWAY ET D12 *US 4282-632
Poultry pinning and hair-removing machine - 63938D/35
- *CONO 04.02.80 CONOCO INC A25 D25 E19 F09 (A97) *EP --33-760
Alkoxylation of alcohol using basic barium or strontium catalyst - 62566D/35
- *CONT- 19.01.77 CONTEMPORARY PERFUM D13 E16 *GB 1596-752
Reducing malodours of carboxylic acids - 62811D/35
- *CONT- 19.01.77 CONTEMPORARY PERFUM B05 D13 E19 (D15) *GB 1596-753
Reducing malodours of butyric, valeric and phenylacetic acids - 62812D/35
- CORP 16.06.77 CPC INTERNATIONAL INC B03 C02 D13 (D16 D17) = IL --54-857
Syrups of high fructose content prodn. from sucrose - 91482A/51
- *CORP 15.02.80 CPC INTERNATIONAL INC B04 D16 *GB 2069-503
Recombinant DNA contg. amylase coding gene - 62878D/35
- COUE 12.01.77 COULTER ELECTRONICS INC B04 D16 J04 S03 (S05) = GB 1596-461
Colorimetric determ. of gamma-glutamyl transpeptidase - 38524A/22
- *COXC/ 14.02.80 COX CF C03 D13 *GB 2069-307
Animal feed compsn. contg. lactose molasses and delactosed whey - 62821D/35
- *DAIK 13.12.79 DAIKIN KOGYO KK D22 J01 *J5 6084-633
Shaped adsorbent for treating waste gas - 63002D/35
- *DAIL 18.12.79 DAICEL CHEM INDS LTD A88 D15 (A25 A26 D13) *J5 6087-403
Crosslinked semipermeable membrane - 63394D/35
- *DAIN 24.01.80 DAINIPPON PHARM KK B04 D21 (D16) *GB 2069-501
Alkaline protease M3 from *Streptomyces globisporus* ATCC 21553 - 62877D/35
- *DALL- 17.10.75 DALL ARGINE E GHIRE D13 *IT 1051-106
Tomato pulp prodn. appts. - D/35
- *DAMB- 15.02.80 DAMBACH-INDUSTRIE AN D15 *DE 3005-635
Demetallising aerobic clear sludge suspension contg. metal sulphate - 62500D/35
- *DEGM 07.01.80 DEGREMONT SA D15 E33 (E36) *FR 2472-951
Three stage reaction appts. for continuous prepn. of coagulant(s) - 62798D/35
- DEGM 09.01.80 DEGREMONT SA D15 = FR 2473-351
Process for producing a body of liq. - 55409D/31
- DEGS 31.10.77 DEGUSSA AG D25 E34 = IL --54-466
Stabilisation of sodium percarbonate particles against moisture - 33354B/18
- DEJI- 06.12.74 DEJ INT RES CO D13 J01 = IT 1051-299
Crystallisable mail septid from liq multicomponent system - 46063X/25
- *DENT- 08.02.80 ETAB DENTAIRE IVOCL A96 D21 (A14) *EP --33-750
Acrylic dental polymer compsns. - 62564D/35
- *DIXI- 06.02.80 DIXIE YARNS INC D25 E19 *EP --33-815
Device for scavenging random dyes in laundry baths - 62577D/35
- *DOVG/ 25.03.77 DOVGOPOL VI D17 J01 *SU -787-858
Vacuum condensn. plant e.g. for sugar refinery - 63911D/35
- *DUBO/ 14.04.80 DUBOIS GE B05 D13 E14 *US 4283-434
Poly:alkoxy-4-amino-ethoxy-4'-alkoxy-di:hydro chalcone derivs. - 64106D/35
- DUMA- 10.01.80 DUMAS & INCHAUSPE D25 E17 = FR 2473-515
Continuous prodn. of sulphonated fatty acid methyl ester(s) - 55495D/31
- *DZHA= 05.01.79 DZHAMBUL LIGHT FOOD D16 (D11) *SU -786-955
Liquid baker's yeast culture prodn. - 63661D/35
- *EAST 06.09.77 EASTMAN KODAK CO A96 B04 D16 J04 *US 4283-491
Analytical element including peroxidase in water permeable carrier - 64128D/35
- *EAST 28.12.77 EASTMAN KODAK CO A96 B04 D16 S03 *US 4283-382
Stabilised fluorescent label - 64084D/35
- *EBAI 17.07.79 EBARA INFILCO KK D15 *J5 6015-844
Regenerating ion exchange resin in desalination appts. - 62930D/35
- *EBAI 10.12.79 EBARA INFILCO KK D15 *J5 6084-689
Treating waste water contg. urine and faeces - 63015D/35
- *EBAI 14.12.79 EBARA INFILCO KK D15 *J5 6087-402
Membrane sepg. liq. contg. organic and/or inorganic reductant - 63393D/35
- *EBAI 18.12.79 EBARA INFILCO KK D15 *J5 6087-499
Treatment of highly conc. organically polluted water - 63424D/35
- EGMO- 26.07.78 ETAB GEN MEC OUEST D13 = US 4283-171
Revolving heater drum - 13326C/08
- EISA 12.01.80 EISAI KK B05 D16 (B03) = FR 2473-519
Terpenoid(s) having antiulcer activity - 36369D/21
- EISA 12.01.80 EISAI KK B05 D16 (B03) = SE 8100-134
Terpenoid(s) having antiulcer activity - 36369D/21
- ELEC- 28.05.70 ELECTRO FOOD AB D13 X25 X26 = IT 1051-242
Heat treating wrapped food with electric current for - 76472S/48
- *ELIL 04.04.63 ELI LILLY & CO B02 C02 D22 E13 *US 4283-349
Di:benz-(be)-(1,4)-oxodinium salt derivs. - 64072D/35
- ELIL 18.02.77 ELI LILLY & CO B02 D13 #IL --51-446
(1)-Thiazolyl-(2)-amino-benzimidazole derivs. - 59427Y/34
- *ELIL 01.11.79 ELI LILLY & CO B04 D16 *US 4283-390
Antibiotic A-39183 factor C, prepd. from *Streptomyces* sp. NRRL 12049 - 64088D/35
- ELIL 28.01.80 ELI LILLY & CO B04 C03 D16 = EP --34-009
Narasin prepd. by cultivation of *streptomyces lydicus* strain - 56971D/32
- ELSA/ 09.05.77 EL-SAYED R M D15 = GB 1596-344
Rapid sewage treatment under anaerobic conditions - 86442A/48
- *ELSN/ 23.01.80 ELSNER A C03 D16 *DD -148-644
Yeast feedstuff prodn. - 62391D/35
- *ENGH 12.02.80 ENGELHARD MINERALS CORP D15 J01 M25 *GB 2069-472
Recovery of precious metals from soln. - 62855D/35
- ENIE- 17.10.79 ENIENTE NAZ IDROCA B05 D16 = J5 6085-288
Carbamyl alpha hydroxy acid prepn. - 29079D/17
- *EPID= 18.06.79 EPIDEM MICROBIOLOG B04 D16 *SU -786-994
Diagnosis of *Salmonella* infection - 63666D/35
- ERAP 15.01.80 SOC NAT ELF AQUITAINE C04 D16 E17 = FR 2473-255
Anaerobic fermentation of manure etc. producing methane and fertiliser - 58964D/33
- ETHI 08.12.78 ETHICON INC A96 D22 F01 (A23 A25) = FR 2473-316
Surgical suture material - 45926C/26
- EXTR- 10.04.72 EXTRACTION DE SMET D23 = IT 1051-429
Extracting oil-contg seeds - 67565T/42
- *FABR 15.01.80 FABRE PSA D21 E24 *FR 2473-310
Stable extracts of henna - 62732D/35
- FARB 25.09.78 BAYER AG B05 C03 D13 = US 4283-400
Medicated animal feed based on liver meal - 27368C/16
- FARB 17.11.79 BAYER AG A82 D18 G02 (A14) = J5 6084-800
Leather finishing compsn. prodn. - 38362D/22
- FARB 29.11.79 BAYER AG D18 E21 F06 (F09) = J5 6086-956
Tris:azo dyestuff cpds. for dyeing cellulose and leather - 42231D/24
- FARB 19.01.80 BAYER AG A91 D15 (A14) = BR 8100-236
Polyacrylamide anion-exchange resin with quat. ammonium gps. - 55320D/31
- FARB 09.02.80 BAYER AG D15 E31 (E33) = DE 3004-825
Precipitating agent for phosphate ions and colloids - 62597D/35
- *FARB 09.02.80 BAYER AG D15 E31 (E33) *EP --33-903
Precipitating agent for phosphate ions and colloids - 62597D/35

- FARH 04.04.74 HOECHST AG C02 D22 = IT 1051-008
Anilides of 2-methyl-5,6-dihydropyran-3-carboxylic acid - 70686W/43
- FARH 31.03.78 HOECHST AG A92 D12 = DS 2960-338
Tubular package sheath - 73767B/41
- FARH 27.07.78 HOECHST AG A97 D12 (A11 A14) = US 4283-426
Cellulose hydrate sausage skins - 11306C/07
- FARH 11.12.78 HOECHST AG A97 D12 = US 4282-904
Wrinkled sausage skin and support sleeve - 46329C/27
- FARH 19.01.80 HOECHST AG B05 C03 D22 E16 (E14) = BR 8100-233
Antimicrobial isothiuronium ether and polyether derivs. - 55319D/31
- *FARH 15.02.80 HOECHST AG B04 C03 D13 (D16) *DE 3005-642
Free-flowing solids prodn. from salinomycin culture broth - 62503D/35
- *FARH 16.02.80 HOECHST AG B04 D16 *GB 2069-504
Microbiologically prepd. human interferon - 62879D/35
- FARM 10.12.76 FARMITALIA ERBA C B04 D16 J04 S03 (S05) = IL --53-576
Immunological determ. of antigens and hapten(s) - 28849A/16
- *FBPM- 07.10.74 FBP MECCANICA SNC D18 *IT 1051-219
Equipment for stacking skins for tanning - D/35
- *FERM= 30.06.77 FERMENTATION PROD D17 E17 *SU -787-461
Starch-contg. material digester for alcohol prodn. - 63801D/35
- FICH 18.01.80 FICHEL & SACHS AG D15 = BR 8100-234
Drinking water filter - 55298D/31
- FICH 18.01.80 FICHEL & SACHS AG D15 J01 = BR 8100-235
Indicating exhaustion level of adsorption filter - 55299D/31
- *FILT- 18.12.75 FAB FILTROS FIEL D15 *IT 1051-181
Deodorising candle for filters - D/35
- FIRM 14.09.78 FIRMENICH SA C03 D13 E17 = US 4283-433
Alpha, beta-unsatd. aldehyde flavouring agents - 24786C/14
- *FIRM 08.02.80 FIRMENICH SA D23 E13 *EP --33-959
Ethyl-tri:methyl-oxa-spiro:deca:diene deriv. - 62608D/35
- FRIE- 24.12.74 FRIEDRICHSFELD GMBH D22 L02 (L01) = IT 1051-422
Hip joint prosthesis with stress dissipating design - 83589X/45
- *FRIY 02.08.79 FRITO-LAY INC D13 *US 4283-437
Preventing light-struck in farinaceous foods fried in cotton seed oil - 64108D/35
- FRRR 11.09.79 FERRERO P & CIA SPA D13 = FR 2473-269
Sugared protein food prod. in foamed plastic form - 05753D/05
- FUJI 21.06.73 FUJISAWA PHARM KK B02 D16 #US 4283-492
Antibiotics WS 3442 a,b,c,d and e - 04971V/03
- *FUJI 17.12.79 FUJISAWA PHARM KK B04 D16 *J5 6086-196
Antibiotic FR-900148 prepd. from streptomyces spp. - 63233D/35
- FUJI- 27.11.73 FUJIYA KK D13 = J5 0082-257
Souring cream after sterilisation and homogenisation - 63557D/35
- *FUJI- 27.11.73 FUJIYA KK D13 *J8 1033-057
Souring cream after sterilisation and homogenisation - 63557D/35
- FUKO 14.03.75 FUJI OIL KK D13 = J8 1032-896
Foamable oil and fat compsns. - 84021X/45
- FULH 22.09.78 FULLER H B CO A81 D22 G03 = BR 7908-828
Hot-melt adhesive for elastic banding - 31077C/17
- *GANK- 19.12.79 GAN KENKYUKAI ZH B04 D16 *J5 6087-600
Recombinant contg. transcriptase genes - 63475D/35
- GASC 28.11.74 BRITISH GAS CORP D15 H05 J01 = IT 1051-297
Purification of redox wash liquors after gas treatment - 63735X/34
- *GELB/ 09.01.80 GELB G D14 *FR 2473-275
Machine for extrn. of juice from soft fruits - 62726D/35
- *GENE/ 25.01.80 GENENTZ A D12 *DD -148-583
Flattening device for over thick fish - 62369D/35
- *GENO 15.11.79 GENERAL FOODS CORP C03 D13 *J5 6085-255
Prodn. of dog food having improved taste - D/35
- *GENO 12.02.80 GENERAL FOODS CORP D13 *GB 2069-308
Prepn. of soluble coffee with reduced acid content - 62822D/35
- *GENO 19.05.80 GENERAL FOODS CORP D13 *US 4283-425
Low fat potato crisp prodn. - 64101D/35
- GENV 17.07.70 SOC GEN ALIMENTAIR GASA D13 = IT 1051-243
Confectionery - 04709T/03
- *GIOR/ 12.06.79 GIORDANO G D11 *US 4283-431
Multilayer pizza prodn. - 64104D/35
- GIUL 15.07.70 GIULINI GEB GMBH D15 #IT 1051-235
Phosphate treatment of industrial and - 10034S/05
- GIVA 15.03.73 GIVAUDAN L & CIE SA D23 E15 = J8 1032-978
Perfumery components and modifiers - 69752V/40
- *GKSM- 11.04.80 GKSS FORSCH GEESTHA D15 *DE 3013-905
Organic cpd.-contaminated waste water purificn. - 62553D/35
- *GLOU/ 12.02.80 GLOUCHKOW PEI D15 *GB 2069-476
Sterilising water flowing through pipe - 62858D/35
- *GODD/ 04.01.80 GODDERIDGE M D16 *FR 2473-059
Improving quality of wine and other alcoholic drinks - 62707D/35
- *GODO 20.12.79 GODO SHUSEI KK C03 D16 *J5 6087-512
Plant virus disease controlling agent - 63434D/35
- *GODO 20.12.79 GODO SHUSEI KK B04 C03 D16 *J5 6087-595
Herbimycin B prepd. by cultivating Streptomyces microorganisms - 63473D/35
- GRAC 11.11.75 GRACE W R CO C03 D25 E14 M11 = IL --50-756
New chelate forming cpds. - 36646Y/21
- *GRAH/ 13.11.79 GRAHAM K Z D12 *US 4282-633
Poultry processing plant - 63939D/35
- *GUIG/ 29.01.79 GUIGAN J D14 *FR 2473-479
Dispenser for package of frozen prod. from bottom of stack - 62751D/35
- HAGG 16.06.77 HAG AG D13 = GB 1596-364
Decaffeinating vegetable materials esp. coffee - 76360A/43
- HAGG 16.06.77 HAG AG D13 = J8 1033-395
Decaffeinating vegetable materials esp. coffee - 76360A/43
- HARP/ 30.08.78 HARPER J L C03 D13 (D16) = BR 7908-796
Increasing protein content of carbohydrate food prods. - 23706C/13
- *HASB- 19.02.80 HASBRO IND INC D21 *GB 2069-333
Readily water-emulsifiable oil phase cosmetic compsn. - 62827D/35
- HENK 29.01.74 HENKEL KG AUF AKTIEN D21 E17 (E12) = IT 1051-004
Skin care compsns - 54013W/33
- HENK 29.01.74 HENKEL KG AUF AKTIEN D21 E16 (E13) = IT 1051-005
Skin care and protection prods - 54012W/33
- HENK 22.02.74 HENKEL KG AUF AKTIEN A97 D21 = IT 1051-007
Liq. cleansing concentrate for foam baths and shampoos - 58715W/36
- HENK 16.11.78 HENKEL KG AUF AKTIEN D23 E15 = US 4283-561
Aldehyde perfume mixt. prepn. - 38630C/22
- HENK 08.02.80 HENKEL KG AUF AKTIEN D23 E13 = EP --33-928
Alkyl-substd. 1,3-dioxolan used as perfume components - 60652D/34
- *HIRS/ 24.01.79 HIRSHAUT Y D16 *US 4283-497
Microbiological mixing and dilution device - 64131D/35
- *HITT 17.12.79 HITACHI CONSTRUCT MACH D15 *J5 6087-410
Device for treating waste water - 63399D/35
- *HITT 17.12.79 HITACHI CONSTRUCT MACH D15 *J5 6087-411
Device for agglomerating suspended solids in dirty water - 63400D/35
- HOFF 31.07.70 HOFFMANN-LA ROCHE AG B05 C03 D13 E15 = IT 1051-240
Zeaxanthine prodn. - by flavobacter microorganisms - 11056T/07
- HOFF 11.05.77 HOFFMANN-LA ROCHE AG D21 E12 = GB 1596-599
Antiperspirant organo-aluminium cpds. - 82107A/46
- HOFF 02.06.78 HOFFMANN-LA ROCHE INC D13 E24 = US 4283-559
Synthesis of astaxanthin - 89713B/50
- *HOFF 08.02.80 HOFFMANN-LA ROCHE AG B04 D16 S03 (S05) *EP --33-960
Sample pretreatment for carcinoembryonic antigen assay - 62609D/35
- HOFF 10.03.80 HOFFMANN-LA ROCHE INC B03 C02 D16 = US 4283-493
Antibiotic X-14766A obtd. from streptomyces strain NRRL 11335 - 27608C/16
- HOOK 27.12.78 HOOKER CHEM & PLAS CORP D15 H09 = BR 7908-905
Solid fuel prodn. from waste-water sludge - 49829C/29
- *HUNT/ 04.02.80 HUNT C M D13 *GB 2069-519
Cooking oil purifying and clarifying appts. - 62890D/35
- *HWAY- 12.02.80 HWAYIN WORLDWIDE DE D18 *GB 2069-407
Waste leather regeneration process - 62847D/35
- ICHI- 00.00.78 ICHIBAN SHOKUHIN KK D13 = J5 4011-268
Dried mushroom prodn. - 63552D/35
- *ICHI- 00.00.78 ICHIBAN SHOKUHIN KK D13 *J8 1032-889
Dried mushroom prodn. - 63552D/35
- ICIL 16.07.74 IMPERIAL CHEM INDS LTD A97 D18 = IT 1051-444
Smoking mixt. compsn. - 09602X/06
- *IHLE- 09.02.80 IHLE INGENIEURGES D15 S03 *DE 3004-855
Measuring waste water activated sludge oxygen consumption - 62415D/35
- INFL 01.10.73 INT FLAVORS & FRAGR INC D23 E15 = J8 1032-965
Bicyclo(2,2,2)octane derivs. used to modify organoleptic props. - 24567W/15
- INFL 07.10.75 INT FLAVORS & FRAGR INC B05 D13 E15 = SU -786-913
Fragrance modifying compsns. - 03751Y/02
- INFL 15.09.76 INT FLAVORS & FRAGR INC D13 E17 (D23) = GB 1596-251
Flavouring and aroma enhancers for foodstuffs and perfumes - 64861Y/36
- INFL 07.10.76 INT FLAVORS & FRAGR INC D18 E17 (E13) = GB 1596-252
Tobacco prod. flavouring - 40070A/22
- INFL 11.11.76 INT FLAVORS & FRAGR INC B05 D13 E15 (B07) = GB 1596-309
Alpha-substd. -3,3-di:methyl-2-norbornane-methanol cpds. - 21476A/11
- *INFL 20.10.78 INT FLAVORS & FRAGR INC B05 D13 E13 *US 4283-576
4-Methyl-3-cyclo-hexenyl-methanol derivs. - 64164D/35
- *INRA- 01.02.80 INRA INST NAT RECH B04 D13 *EP --34-083
Phospho:peptide prodn. from caseinate - 62670D/35
- INSP 21.11.79 INST PASTEUR B04 D16 = J5 6085-296
Highly purified human interferon prepn. - 42601D/24
- *INSP 14.02.80 INST PASTEUR B04 D16 *DE 3005-495
Lipid-coated virus particles prodn. e.g. for influenza vaccine - 62480D/35
- INTE- 11.01.80 INTEROX SA C03 D13 = FR 2473-270
Compan. for assisting food digestion in ruminants - 55470D/31
- IOWA 13.11.79 IOWA STATE UNIV RES INC B04 C03 D16 = J5 6086-120
Vaccine contg. specific antigenic protein - 38502D/22

- JAAT 23.07.75 JAPAN ATOMIC ENERGY RES A96 B04 D16 (A14) = J8 1033-076
 Prodn. of immobilized enzyme enclosed in porous polymer - 08032Y/05
- JAAT 23.07.75 JAPAN ATOMIC ENERGY RES A96 B04 D16 (A14) = J8 1033-077
 Prodn. of immobilized enzyme enclosed in porous polymer - 08032Y/05
- *JAAT 14.01.80 JAPAN ATOMIC ENERGY RES D16 *FR 2473-503
 Prodn. of clean agricultural compost by fermentation of organic waste - 62754D/35
- JAGN 24.12.77 JAGENBERG WERKE AG D14 S02 = IL --56-277
 Automatic dispenser of tiny doses of liq. - 31645B/17
- *JAOR 20.12.79 JAPAN ORGANO KK A97 D15 *J5 6087-500
 Sludge dewatering in night soil, industrial effluent treatment - 63425D/35
- *JAPC 11.12.79 NIPPON SHOKUBAI KAGAKU A96 D22 (A14) *J5 6084-632
 Heat-resistant fluid absorbent - 63001D/35
- JAPE 23.10.78 JAPAN EXLAN CO A88 D15 J01 (A14) = US 4283-359
 Polyacrylonitrile reverse osmosis membrane prepn. - 33011C/19
- *JAPS 12.12.79 JAPAN SYNTHETIC RUBBER B01 D16 *J5 6085-297
 Ergosterol prodn. - 63135D/35
- JETC-01.08.77 JET-CERAMIC DENTAL D21 = US 4283-173
 Dental prosthesis working model prodn. - 15961B/08
- *JOHJ 11.05.79 JOHNSON & JOHNSON D22 *US 4282-874
 Disposable diaper - 63965D/35
- *KAKE 15.02.80 KAKEN CHEM KK B04 D16 *GB 2069-500
 Antibiotics actinomadura L-31A and L-31B - 62876D/35
- KAKY 28.12.77 KAKEN YAKU KAKO KK B04 C03 D16 = SU -786-915
 Straight chain peptide type antibiotics K 582 M - 51279B/28
- *KALS- 28.02.80 KALSEC INC D13 *US 4283-429
 Homogeneous stable liq. seasoning and colouring compsn. - 64102D/35
- *KANA- 12.12.79 KANAGAWA KIKI KOGYO D15 *J5 6084-605
 Rapid back wash filter - 62979D/35
- KANA/ 28.07.73 KANAI H D15 J01 = J5 0033-551
 Oil-water separator - 63559D/35
- *KANA/ 28.07.73 KANAI H D15 J01 *J8 1033-124
 Oil-water separator - 63559D/35
- KAOS 15.12.75 KAO SOAP KK D21 E16 (E14) = J8 1033-364
 Transparent hair rinsing compsn. - 54669Y/31
- KAOS 10.01.80 KAO SOAP KK A96 D22 = FR 2473-353
 Porous flexible sheet - 60945D/34
- *KARA/ 18.12.79 KARASAKI B04 D16 *J5 6086-195
 Anticancer crucivin prepn. - 63232D/35
- *KATA- 14.12.79 KATAYAMA KAGAKU KOGYO KE C03 D22 *J5 6086-106
 Synergistic slime controlling mixt. - 63194D/35
- *KDPO= 23.01.79 KRASD POLY D16 *SU -785-354
 Mash distn. appts. automatic control - 63626D/35
- *KEND 15.04.80 KENDALL CO A96 D22 F07 *BE -888-451
 Disposable nappy with upper textile layer - 62361D/35
- *KIFO= 14.08.78 KIEV FOOD IND TECHN D17 E17 T06 *SU -787-459
 Starch bearing feedstock boiling control - 63800D/35
- *KIFO= 24.10.78 KIEV FOOD IND TECHN D23 J04 S03 *SU -787-376
 Oleaginous seeds laboratory extractor - 63747D/35
- *KIFO= 27.12.78 KIEV FOOD IND TECHN D17 *SU -787-473
 Beet sugar juice carbonator - 63803D/35
- *KIME= 12.02.79 KIEV MEDICAL COSMETICS D21 *SU -787-026
 Face cream compsn. - 63667D/35
- *KIMI- 11.12.79 KIMITSU KAGAKU KENK D13 *J5 6085-269
 Seaweed and roe prepn. - 63132D/35
- KINJ- 10.11.77 KINJIRUSHI WASABI D13 = J8 1033-066
 Treating foodstuff prepd. from soybean to remove soybean odour - 53259B/29
- KIRK- 09.10.79 KIRKS SUEDELIFE INC D18 = DK 8004-256
 Cleaning suede and leather garments by wash liquids - 23113D/13
- *KISU 27.11.78 KIEV SHEVCHENKO UNIV B04 D16 *SU -787-413
 Medicinal phospho-di:esterase enzyme prepn. - 63782D/35
- *KITA 20.12.79 KITASATO RES INST C03 D16 *J5 6087-512
 Plant virus disease controlling agent - 63434D/35
- *KITA 20.12.79 KITASATO RES INST B04 C03 D16 *J5 6087-595
 Herbimycin B prepd. by cultivating Streptomyces microorganisms - 63473D/35
- *KLEI/ 00.00.78 KLEIN J A96 B04 D16 J04 *DE 3005-632
 Bio-catalyst beads prodn. by inclusion polymerisation - 62498D/35
- *KLEI/ 00.00.78 KLEIN J A96 B04 D16 J04 *DE 3005-633
 Bio-catalyst beads prodn. by ionic crosslinking of polycations - 62499D/35
- *KOJK 14.12.79 KOHJIN KK A11 D22 (A96) *J5 6084-701
 Liq.-absorbent polymer prodn. - 63016D/35
- KONN 26.01.77 GIST-BROCADES NV B04 C03 D16 = GB 1596-653
 Orally-administrable rabies vaccine - 56795A/32
- KONN 26.01.77 GIST-BROCADES NV B04 C03 D16 = IL --53-644
 Orally-administrable rabies vaccine - 56795A/32
- KORN/ 12.02.80 KORN H D13 = DE 3005-104
 Food material prodn. from dried banana - 62616D/35
- *KORN/ 12.02.80 KORN H D13 *EP --33-975
 Food material prodn. from dried banana - 62616D/35
- KOWA 03.09.75 KOWA KK B03 D16 = J8 1033-398
 Antibacterial amino sugar deriv. prepn. - 28079Y/16
- KRPP 28.07.70 KRUPP FGMBH D23 J01 = IT 1051-239
 Steam distillation - 09402T/06
- *KRPP 12.02.80 KRUPP FGMBH D16 J04 *DE 3005-115
 Froth formation of gas-liq. reactions - 62448D/35
- *KUBI 18.12.79 KUBOTA KK D15 *J5 6087-412
 Sludge sepn. process - 63401D/35
- *KUBL/ 09.02.80 KUBLER H D15 *DE 3004-826
 Multistage filter press system for sewage sludge - 62411D/35
- KURE 18.12.75 KUREHA CHEM IND KK B04 D16 = SU -786-855
 Antioncogenic nitrogen-contg. polysaccharides - 43426Y/25
- KURE 28.02.77 KUREHA CHEM IND KK D16 (D13) #SU -786-916
 Microbial food prepd. by culturing Methylomonas probus - 26299Y/15
- KURE 15.12.78 KUREHA CHEM IND KK A97 D22 = J8 1033-104
 Slow release air aromatising compsn. - 54525C/31
- *KURK 13.12.79 KURITA WATER IND KK D15 J01 *J5 6084-602
 Solid-liq. contacting device - 62977D/35
- *KURK 14.12.79 KURITA KIKAI SEISAK D15 *J5 6087-413
 Leakproof filter press filter plate - 63402D/35
- *KURK 17.12.79 KURITA WATER IND KK D15 E33 *J5 6087-496
 Removing organic material and phosphorus components from waste water - 63423D/35
- KURS 31.08.76 KURARAY KK A96 D21 E19 = J8 1033-363
 Adhesives for teeth and bone - 18156A/10
- *KYOW 20.12.79 KYOWA HAKKO KOGYO KK B04 D16 *J5 6087-594
 Antibiotic XK-209 obtd. by cultivation of microorganism - 63472D/35
- *LANG/ 18.02.80 LANG H D12 *DE 3006-029
 Sausage pressing machine - 62536D/35
- *LEAT= 03.10.78 LEATHER FOOTWEAR A97 D18 (A21) *SU -787-421
 Prepn. of synthetic, oil tanning compsn. for leather - 63788D/35
- LECO= 08.01.80 LENGD COMMUN ECONOM D15 L02 #FR 2473-036
 Reclaiming sludge from filtration plants - 51870D/29
- LEGA/ 07.01.80 LEGAST E D23 = FR 2473-058
 Steam extn. of essential oil from vegetable matter - 36358D/21
- LEGA/ 07.01.80 LEGAST E D23 = SE 8009-088
 Steam extn. of essential oil from vegetable matter - 36358D/21
- *LENZ/ 11.02.80 LENZ R D15 J01 K06 *DE 3004-961
 Construction of basket with internal fabric - 62430D/35
- LERE= 21.03.79 LENGD REFRIG INST D15 = DD -148-567
 Treating sewage on board ship - 73964C/42
- LERE= 11.05.79 LENGD REFRIG INST D15 = DD -148-566
 Treating sewage on board ship - 73964C/42
- LERE= 05.07.79 LENGD REFRIG INST D15 = DD -148-556
 Treating sewage on board ship - 73964C/42
- LERE= 05.07.79 LENGD REFRIG INST D15 = DD -148-557
 Treating sewage on board ship - 73964C/42
- LEVO- 09.04.79 LEVOR INC D15 G04 X15 = US 4283-211
 Ambient energy recovery from water and water purification - 79104C/4
- LEVY/ 10.01.80 LEVY S D16 E17 = NO 8100-072
 Low energy extn. of alcohol(s) from aq. solns. - 30776D/17
- *LIBE/ 29.03.74 LIBERIG D11 *IT 1051-205
 Automatic charging and discharging of oven with bread - D/35
- LINK- 26.11.76 LINKROSE LTD D15 J02 = GB 1596-738
 Gas-liquid contacting process - 40762A/23
- LINK- 00.00.78 LINKROSE LTD D15 J02 = GB 1596-739
 Gas-liquid contacting process - 40762A/23
- *LIOY 08.11.79 LION CORP D25 *J5 6084-797
 Liq. detergent compsn. with good stability at low temps. - 63069D/35
- *LIOY 07.12.79 LION CORP A96 D21 (A17 A26) *J5 6086-113
 Hair conditioning compsn. - 63199D/35
- *LIOY 18.12.79 LION CORP D25 E37 (E16) *J5 6087-000
 Liq. detergent compsn. - 63358D/35
- LOEW- 13.10.78 LOEWS THEATRES INC D18 = BR 7908-861
 Transferring nicotine from donor tobacco to substrate - 34559C/19
- *LOMB/ 07.10.71 LOMBARD O F D12 *IT 1051-238
 Meat juice for food products - D/35
- LONG- 31.03.77 LONGWOOD ENG CO LTD D15 = GB 1596-296
 Slurry dehydrator - 87032A/48
- *LOUE/ 09.10.79 LOUESSARD M D11 X25 *FR 2472-917
 Bakery hand tool to cut striations in bread dough piece - 62693D/35
- LYAL/ 16.08.77 LYALL R D13 S02 = GB 1596-661
 Milk powder distributor for baby food - 39403B/21
- *MAGG/ 25.01.80 MAGGESIL A96 D21 *EP --34-126
 Shaving compsn. contg. cationic ammonium cpd. or polymer - 62687
- *MARI/ 16.01.80 MARIOTTI A D13 E12 *FR 2473-273
 Non alcoholic drink prepd. by homogenising components - 62725D/
- *MARS 14.12.79 MARUI KOGYO KK D13 G02 *J5 6085-243
 Reclaiming waste frying oil - 63129D/35

- * MARU- 10.12.79 MARUTOMO KOKEN KK D15 J01 *J5 6084-603
Oil sepn. from water - 62978D/35
- * MATU 14.12.79 MATSUSHITA ELEC IND KK D14 M13 *J5 6085-313
Gas roaster using far IR rays - 63138D/35
- * MATU 18.12.79 MATSUSHITA ELEC IND KK D16 E17 J04 (D17) *J5 6087-853
Enzymic electrode for measuring fructose concn. - 63522D/35
- * MAZN 09.01.80 MARUZEN KASEI KK B03 D13 E13 *FR 2473-526
18:alpha glycyrrhizinic acid - 62757D/35
- * MCAG- 16.01.80 MCA GYROPALETTE D16 *FR 2473-546
Powered mechanism for champagne method of handling bottle crates - 62759D/35
- MEIJ 18.12.72 MEIJI SEIKA KHA LTD B05 C03 D22 = J8 1033-373
Alkyl 2,3,3-triiodoallyl ethers - 44484U/32
- MEIJ 27.12.78 MEIJI SEIKA KAISHA B04 C03 D16 = US 4283-389
Antibiotic BN-183B prepd. by cultivation of Pseudomonas BN-183 - 32784C/19
- * MEIP 12.12.79 MEIJI MILK PRODS KK D13 *J5 6085-250
Protein material prodn. - 63130D/35
- * MEIP 12.12.79 MEIJI MILK PRODS KK D13 *J5 6085-251
Proteinaceous material mfr. - 63131D/35
- MEIT 26.04.78 MEITO SANGYO CO KK B04 D16 S03 S05 #US 4283-494
Lipase prodn. from Alkaligenes microorganism - 48599A/27
- MERI 20.04.77 MERCK & CO INC A96 B04 D16 J04 (S03 S05) = GB 1596-591
Hepatitis B nucleus antigen prepn. - 76264A/43
- MERI 20.04.77 MERCK & CO INC A96 B04 D16 J04 (S03 S05) = GB 1596-592
Hepatitis B nucleus antigen prepn. - 76264A/43
- MERI 20.04.77 MERCK & CO INC A96 B04 D16 J04 (S03 S05) = GB 1596-593
Hepatitis B nucleus antigen prepn. - 76264A/43
- * MERI 01.08.79 MERCK & CO INC B02 C02 D22 *US 4283-397
7-Cationic heterocyclyl:amino-4-carboxy cephalosporin derivs. - 64092D/35
- MERI 14.11.79 MERCK & CO INC B04 D13 H01 = J5 6085-256
Clabber-free xanthan gum - 44004D/24
- MICR- 29.11.79 INST PO MICROBIOLOG D16 (D17) = FR 2473-549
Glucose isomerase prepn. by cobalt-free fermentation - 25454D/15
- MICR- 29.11.79 INST PO MICROBIOLOG D16 (D17) = FR 2473-550
Glucose isomerase prepn. by fermentation - 25455D/15
- * MIKE- 02.01.80 MIKE & KREMMEL LTD D14 *FR 2472-947
Extrusion press for confectionery icing, tooth paste etc. - 62696D/35
- MIKE- 02.01.80 MIKE & KREMMEL LTD D14 = GB 2069-616
Extrusion press for confectionery icing, tooth paste etc. - 62696D/35
- MITB 23.06.77 MITSUI SHIPBUILDING ENGG D16 (D13) #SU -786-917
Single cell protein and fat mfr. by cell cultivation - 58413Y/33
- * MITC 10.12.79 MITSUI PETROCHEM IND KK D15 *J5 6084-612
High purity water prodn. - 62986D/35
- * MITC/ 12.12.78 MITCHELL W A D13 *US 4283-432
Beverage powders made from dahlia tubers - 64105D/35
- * MITO 17.12.79 MITSUBISHI HEAVY IND KK D15 *J5 6087-491
Electrolytic treatment of night soil - 63422D/35
- MITU 15.10.74 MITSUBISHI CHEM IND KK D23 (D13 D16) = J8 1032-898
Oil vegetable seeds or microbes treated - 41057X/22
- MITU 16.12.74 MITSUBISHI CHEM IND KK B04 D16 = J8 1033-075
Insoluble glucose isomerase mfr - 58954X/31
- * MITU 14.12.79 MITSUBISHI CHEM IND KK A97 D21 *J5 6084-798
Pocket soap prodn. - 63070D/35
- MIUR- 06.04.77 MIURA SEISAKUSHO KK D15 E36 (E12 E31) = J8 1033-159
Hydrazine deoxidant compsn. for water - 92162A/51
- * MLFO= 28.10.75 MOLD FOOD IND RES D14 *SU -787-827
Rapid freezer with vortex heat exchangers - 63882D/35
- MLFO= 01.02.78 MOLD FOOD IND RES D14 = SU -787-828
Rapid freezer for food - 90912B/50
- MOBA- 09.12.77 MOBA HOLDING BARNEV D12 = IL --56-136
Device for modelling or packaging objects partic. fowls - 48336B/26
- * MOFJ 05.10.78 MOSCOW FINE CHEM TECHN B03 D16 *SU -787-414
Biologically active phospho-glycol-lipid prepn. - 63783D/35
- * MOMD 26.02.79 MOSCOW MEAT DAIRY INST D14 *SU -787-826
Food products freezing by direct contact with coolant - 63881D/35
- * MOME= 18.06.79 MOSC MEDICAL INST B04 D16 *SU -786-994
Diagnosis of Salmonella infection - 63666D/35
- MONA- 30.11.78 MONA INDUSTRIES D25 E11 = US 4283-542
Phosphorus-contg. surfactants mfr. - 57234C/33
- MRSC 17.06.76 MARS LTD C03 D13 = IL --52-312
Stabilisation of protein foodstuff of high water content - 90052Y/51
- MRSC 09.03.77 MARS LTD D13 (D12) = GB 1596-294
Textured food product similar to meat in structure - 65287A/37
- MUKO- 30.10.74 MUKOYAMA KAGAKU KOG D23 = J5 1050-307
Oil or fat deodorisation - 63541D/35
- * MUKO- 30.10.74 MUKOYAMA KAGAKU KOG D23 *J8 1032-357
Oil or fat deodorisation - 63541D/35
- * NAKA/ 19.12.79 NAKANOT D21 *J5 6087-513
Cosmetic compsn. 63435D/35
- NATL 01.11.79 NL INDUSTRIES INC A94 D22 F07 (A14 A96) = J5 6085-495
Water absorbent composite sheet, prodn. - 17515D/11
- NATW 07.05.76 NATTERMANN A & CIE GMBH B04 D16 = J8 1032-913
Recovering lipase rich fractions from pancreatic tissue - 63117Y/36
- NEDE 20.12.74 NEDERLANDSE ORG COO D15 J01 = IT 1051-447
Reverse osmosis device for water desalination - 52564X/28
- NEOL- 25.10.79 NEOLOY PRODUCTS INC D18 M26 = J5 6087-644
Non-precious stainless dental alloy - 23191D/13
- NEST 08.10.76 SOC PROD NESTLE SA D13 = J8 1033-056
Stable, aq. soya suspensions prodn. - 29091A/16
- * NEST 15.02.80 SOC PROD NESTLE SA D14 *GB 2069-312
Batch heat treatment of particulate solids - 62824D/35
- NICH- 30.10.79 NIPPON CHEMTECH CON A97 D15 H03 J01 (D17 H05 H07) = J5 6084-613
Purificn. of liq. media - 57211D/32
- * NIDE 12.12.79 NIPPON ELECTRIC KK D15 J01 *J5 6084-686
Heavy metal removal from waste water - 63013D/35
- NIED/ 15.12.79 NIEDECKER H D12 = BR 8008-157
Sausage machine filler tube - 46167D/26
- * NIKO= 12.02.79 NIKOLAEVSK PERFUMERY D21 *SU -787-026
Face cream compsn. - 63667D/35
- NIOF 22.04.78 NIPPON OILS & FATS KK D11 = J5 4140-753
Bread prepn. - 63551D/35
- * NIOF 22.04.78 NIPPON OILS & FATS KK D11 *J8 1032-885
Bread prepn. - 63551D/35
- * NIOF 17.12.79 NIPPON OILS & FATS KK A97 D25 E16 (A25) *J5 6086-999
Detergent compsn. - 63357D/35
- * NIOF 07.01.80 NIPPON OILS & FATS KK D23 *GB 2069-520
Sepn. of components of fatty mixt. - 62891D/35
- NIPT 30.03.77 NIPPON TENSAI SEITO KK D16 (D15 D17) = J8 1032-911
Yeast prepn. from Candida, Hansenula, Saccharomyces strain etc. - 86817A/48
- * NISA- 17.12.79 NIPPON SANGYO KIKAI D15 *J5 6087-415
Laminated water filter medium - 63404D/35
- * NISC 20.12.79 NISSAN CHEM IND KK C03 D16 *J5 6087-512
Plant virus disease controlling agent - 63434D/35
- * NISC 20.12.79 NISSAN CHEM IND KK B04 C03 D16 *J5 6087-595
Herbimycin B prepd. by cultivating Streptomyces microorganisms - 63473D/35
- * NISP 12.12.79 NISSIN SHOKUHI KAISHA D13 *J5 6085-250
Protein material prodn. - 63130D/35
- * NISP 12.12.79 NISSIN SHOKUHI KAISHA D13 *J5 6085-251
Proteinaceous material mfr. - 63131D/35
- NISS 08.03.73 NISSHIN FLOUR MILL KK C03 D13 = J4 9115-893
Feedstuff for cultivation of fish - 63558D/35
- * NISS 08.03.73 NISSHIN FLOUR MILL KK C03 D13 *J8 1033-063
Feedstuff for cultivation of fish - 63558D/35
- NISS 03.12.73 NISSHIN FLOUR MILL KK D15 J01 = J5 0084-966
Waste water purifier - 63561D/35
- * NISS 03.12.73 NISSHIN FLOUR MILL KK D15 J01 *J8 1033-127
Waste water purifier - 63561D/35
- NISS- 14.06.76 NISSE KK D13 = J8 1032-897
Highly preservable whipped cream prepn. - 11066A/06
- NISW 09.03.77 NISSHIN OIL MILLS KK D23 #US 4283-346
Removal of fat or oil from clay used in decolourisation - 80243Y/45
- * NITL 07.12.79 NITTO ELECTRIC IND KK D15 J01 *J5 6084-601
Membrane separator module cleaner - 62976D/35
- NIUS 15.05.78 NIPPON SUISEN KAISHA A11 B04 D13 = J8 1033-401
Low mol. wt. chitosan prodn. - 01026C/01
- * NIZH= 05.10.78 NIZHNEVARTOVSKNEFTEGAZ D22 H01 *SU -785-465
Inhibition of sulphate-reducing bacteria growth in oil strata - 63635D/35
- * NKKC- 18.12.79 NIKKA KAGAKU KOGYO D25 E14 *J5 6086-998
Detergent compsn. - 63356D/35
- * NOJI- 12.12.79 NOJIMA-GUMI KK D15 *J5 6084-688
Waste water treatment - 63014D/35
- NOVO 23.08.77 NOVO INDUSTRIA/S D16 (D17) = GB 1596-662
Glucose isomerase activated by water-soluble iron salt - 15971B/09
- OREA 08.11.76 L'OREAL SA A96 D21 #US 4283-384
Cosmetics contg. polymers of unsatd. cpds. with hydroxylic cpds. - 27146Y/16
- OREA 04.01.80 L'OREAL SA D21 = FR 2472-934
Cosmetic compsn. for the skin and hair - 51677D/29
- OREA 09.01.80 L'OREAL SA D21 E24 = FR 2473-513
Compsns. for dyeing keratin fibres - 52177D/29
- * OREA 11.01.80 L'OREAL SA A96 D22 F07 *FR 2473-304
Nonwoven semipermeable covers for sanitary pads for menstrual use - 62730D/35
- OREA 14.01.80 L'OREAL SA D16 = FR 2473-547
Hollow punch tool for extrn. of gelatin pellets by suction - 53772D/30
- ORIO- 13.11.79 ORION RESEARCH INC D15 J04 S03 = FR 2473-719
Monitoring sample streams contg. fluoride or sulphide series - 34205D/19
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = NO 8100-034
Mono:clonal antibody reactive with peripheral T cells and thymocytes - 60747D/34

- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = NO 8100-035
Monoclonal antibody reactive with monocytes and granulocytes - 60748D/34
- OSAY 13.12.79 ENSO GUTZEIT OY D15 = BR 8008-108
Purification of waste water by anaerobic bacterial treatment - 59087D/33
- *PAMF= 07.01.80 PAMFILOV COMM WATER D15 *FR 2472-943
Floating decanter with tubular risers to clarify river water etc. - 62694D/35
- *PARW- 31.10.79 PAR-WAY MFG CO D14 *US 4283-012
Enrobing appts. for spraying food prod. - 63989D/35
- *PENT- 12.02.80 PENTAPHARM AG B04 D16 *EP --34-122
Tripeptide derivs. for determination of enzymes in blood - 62686D/35
- PFIZ 15.11.77 PFIZER INC D16 H01 = J5 6085-284
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
- PFIZ 15.11.77 PFIZER INC D16 H01 = J5 6085-292
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
- PFIZ 15.11.77 PFIZER INC D16 H01 = J5 6085-293
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
- PFIZ 15.11.77 PFIZER INC D16 H01 = J5 6085-294
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
- PHIM 20.09.78 PHILIP MORRIS INC D18 (D16) = BR 7908-824
Increasing filling power of tobacco - 31067C/17
- PILL 19.12.78 PILLSBURY CO D11 E19 F06 J09 (E37 X25 X27) = US 4283-427
Susceptor appts. used in oven or furnace - 87081C/49
- *PISA/ 07.09.67 PISANO F D17 J01 *IT 1051-228
Filter for sugar prodn. solns. - D/35
- *PISH= 01.11.78 PISHCHEPROMAVTOMATI D17 T06 X25 *SU -785-353
Starch-contg. material steaming control in alcohol prodn. - 63625D/35
- *PLAK/ 31.01.77 PLAKAS C J D16 *US 4283-490
Detecting low level bacterial concn. by luminescence - 64127D/35
- POGC 06.07.77 DAVY INT OIL CHEM D15 E37 J01 M25 = US 4283-290
Recovering e.g. copper or cyanide from aq. soln. - 80227A/45
- *PRAN/ 17.12.75 PRANDONIA D12 *IT 1051-085
Domestic sewage water purifier - D/35
- *PRIZ/ 25.09.71 PRIZZONE D12 *IT 1051-244
Automatic equipment for continuous sterilisation of milk - D/35
- PROC 31.03.77 PROCTER & GAMBLE CO D13 = GB 1596-587
Decaffeinated coffee obtd. by solvent extraction - 72688A/41
- PROC 22.04.77 PROCTER & GAMBLE LTD A97 D25 E37 = GB 1596-756
Washing powder detergent compsn. - 76324A/43
- PROC 09.04.79 PROCTER & GAMBLE CO A97 D15 (A14 A17) = US 4283-300
Inhibiting manganese staining, esp. of toilet bowls - 79415C/45
- PROC 16.01.80 PROCTER & GAMBLE CO A96 D22 F07 = BR 8100-218
Skin-cleaning sheet material - 57273D/32
- *PROC 05.02.80 PROCTER & GAMBLE CO A97 D25 *EP --34-039
Liq. detergent contg. draining promoting nonionic surfactant - 62647D/35
- *PROC 02.07.80 PROCTER & GAMBLE CO A97 D22 *US 4283-301
Bleaching compsns. contg. peroxy cpds. - 64053D/35
- PROV- 15.01.80 PROVESTA CORP C03 D16 (D13) = BR 8005-489
Prodn. of single cell protein material - 79213C/45
- *PRZE- 13.02.80 INST PRZEM FERMENTA D16 (D18) *DE 3005-365
Enzymatic processing of opt. fermented tobacco - 62470D/35
- *QUAK 06.08.79 QUAKER OATS CO D11 *US 4283-424
Frozen pizza prod. for microwave cooking - 64100D/35
- RALS 16.03.71 RALSTON PURINA CO D13 = IT 1051-246
Protein food product - 62227T/39
- RALS 09.01.80 RALSTON PURINA CO D11 = FR 2473-268
Milk substitute for bakery prods. - 38186D/22
- RAPI- 24.10.79 RAPIDASE BV D13 E12 (D16 E33 E34) = J5 6085-286
Thermally sensitive microbial rennet - 34720D/20
- *RATI- 17.01.80 VEB RATIONALIS KUNS D18 *DD -148-645
Continuous pigs skin fleshing machine - 62392D/35
- REGC 23.11.79 UNIV OF CALIFORNIA B04 D16 = US 4283-489
Purifying nucleotide sequences for insertion into microorganisms - 80247A/45
- REIJ/ 13.02.69 REIJONEN Y D15 = IT 1051-234
Removing iron from deep earth well water - 57365R/32
- RENN/ 13.09.79 RENNERFELT LI D15 M14 = NO 8101-606
Purificn. of spent acid pickling baths - 25384D/14
- *RETO 20.10.76 REYNOLDS R J IND INC D16 (D17) *US 4283-496
Biologically pure culture of *Flavobacterium arborescens* ATCC 4358 - 64130D/35
- *REYN/ 10.12.76 REYNOLDS H R D14 *US 4282-853
Adjustable broiler stove - 63963D/35
- *RICH 09.05.80 RICHARDSON-MERRELL INC B06 D21 E37 (E12 E17) *US 4283-385
Soluble fluoride dentifrice contg. calcium cpd. abrasive - 64085D/35
- RICH- 28.01.77 RICH PROD CORP D13 = IL --53-713
Food stabiliser against microbial decay - 57151A/32
- ROBE- 04.09.71 ROBERTS-BOZE INC D15 #J4 8034-371
Filter bed clarifier - 01094T/01
- ROBE- 04.09.71 ROBERTS-BOZE INC D15 #J8 1033-130
Filter bed clarifier - 01094T/01
- *ROTE- 13.02.80 ROTENBURGER METALLW D15 *DE 3005-251
Floating material sepn. from grinding waste waters - 62459D/35
- *SAGR/ 13.02.80 SAGREDOS A C03 D13 *DE 3005-305
Animal feed prodn. from plant residues and waste material - 62467D/35
- SAGR/ 13.02.80 SAGREDOS A N C03 D13 = GB 2069-309
Animal feed prodn. from plant residues and waste material - 62467D/35
- *SALA- 26.11.79 SALA INT AB D15 *SE 7909-739
Probe for use in pumping of sedimented material - 63593D/35
- SALV- 07.10.77 SALVE SA D22 = IL --55-551
Surgical bandage pack - 29976B/16
- *SANK- 15.12.79 SANKO SANGYO KK D22 *J5 6085-349
Secondary pollution-free deodorant prodn. - 63140D/35
- *SANY- 17.12.79 SANYO KAKO KK D15 *J5 6087-409
Oil-contg. waste water purifier - 63398D/35
- SAOC 25.09.76 SANRAKU OCEAN D16 = J8 1033-074
Methanol katabolisable marine *Methylomonas* bacteria prepn. - 37670A/21
- *SART/ 08.10.71 SARTOR A P D12 *IT 1051-245
Fungal mycelium prodn. - D/35
- *SAVO/ 10.12.75 SAVOINIO D11 *IT 1051-464
Appts. for expanding bread and pastry products - D/35
- *SCHE 17.01.80 SCHERING CORP B02 D16 *EP --33-840
Kijanimicin from *Actinonmadura kijaniata* ATCC 31588 - 62579D/35
- *SCHL/ 29.10.79 SCHLESINGER J D A96 D16 *US 4283-498
Biological specimen collection and transport appts. - 64132D/35
- *SCHN/ 15.02.80 SCHNEIDER A D15 *DE 3005-637
Liq. farmyard manure treatment - 62501D/35
- SCHW- 04.09.78 SCHWARZKOPF DEV COR D22 M26 (M21) = BR 7908-803
Hollow nail with longitudinal ribs, for fixing bone fractures - 20592C/12
- *SCMZ 21.02.78 SCM CORP B05 D25 E15 *US 4283-347
Para-menthene-7-sulphonic acid and salts - 64070D/35
- SCON 24.08.76 KONINK SCHOLTEN-HON D13 (D17) = GB 1596-742
Sepn. of wheat gluten and wheat starch - 15863A/09
- SEIK- 02.03.78 SEIKEN KAGAKU KK A97 D22 E19 = J8 1033-103
Deodoriser for e.g. pyridine - 76449B/42
- SEIS- 13.09.77 SEISHIN SEIYAKU KK A89 D16 E36 J04 (S03 S05) = J8 1032-920
Reagent for quantitative hydrogen peroxide determ. - 37739B/20
- SEIW- 31.12.77 SEIWA KASEI KK D15 = J8 1033-125
Flocculant for waste water sludges - 65315B/36
- SERV/ 24.08.67 SERVIERE P B05 D21 E19 = IT 1051-230
Skin cream contg. esters of malic acid with lipophilic - 36432F/00
- SETO- 19.11.79 SETON CO D12 (D21) = J5 6085-416
Soluble collagen fibre prepn. from hides - 40481D/23
- SHEL 20.11.79 SHELL INT RES MIJ BV A26 D25 E17 (A97) = J5 6086-126
Methyl polyether prodn. - 46257D/26
- SHEL 10.01.80 SHELL CANADA LTD D15 H01 = FR 2473-338
Topological separator - 53758D/30
- SHEM/ 22.02.78 SHEMER M A97 D12 = IL --54-096
Self-binding fibrous gluten for meat-like prods. - 65019B/36
- *SHIO 18.12.79 SHIONOGI KK B04 D16 *J5 6087-596
Antibiotic octapeptin D - 63474D/35
- SHIS 31.05.73 SHISEIDO KK D21 = J8 1032-963
Permanent hair-waving compsns. - 38440W/23
- SHIS 04.09.74 SHISEIDO KK D21 E19 = J8 1032-964
Odourless stable permanent wave compsn - 30996X/17
- SHIS 16.01.80 SHISEIDO KK D21 E31 #FR 2473-535
Cosmetic contg. yellow iron oxide - 15356C/09
- *SHKG 15.02.80 SCHOELLER & HOESCH KG A97 D18 F09 (A88) *DE 3005-793
Porous filter paper with synthetic material dots - 62525D/35
- SHUD/ 15.11.71 SHUDO A D13 = J4 8056-859
Egg-contg. foamed dried foodstuff prodn. - 63556D/35
- *SHUD/ 15.11.71 SHUDO A D13 *J8 1033-054
Egg-contg. foamed dried foodstuff prodn. - 63556D/35
- SICK/ 03.12.74 SICK P D16 S02 S03 S05 (T06) = IT 1051-027
Continuous growth of micro-organisms - 77973X/42
- SIPA- 16.01.80 SIPAC SOC INT PUBL D15 = FR 2473-356
Discardable cation exchanger for removing metals from waste liq. - 30835D/18
- *SLAG- 10.10.79 SLAGTERIERNES FORSK D12 *DK 7904-257
Cohered meat pieces product mfr. - D/35
- SMIC 21.04.78 SMITH A O HARVESTOR D13 #GB 1596-548
Self adjusting breather bag for sealed storage silo - 09703B/05
- SMIK 17.07.72 SMITH KLINE FRENCH B04 C03 D13 = IT 1051-355
Polyhalohemiacetal polysaccharides prepn - 53461U/37
- SNAM 07.07.72 SNAMPROGETTI SPA D15 = J4 9053-160
Seawater desalination plant - 01417V/01
- SNAM 07.07.72 SNAMPROGETTI SPA D15 = J8 1033-121
Seawater desalination plant - 01417V/01

- SNAM 03.12.75 SNAMPROGETTI SPA D15 H03 = IT 1051-033
Biological treatment of oil pollution in sea water etc. - 39853Y/23
- SOLV 24.04.78 SOLVAY & CIE A97 D25 E34 (E35) = DS 2960-343
Particles contg. polylactone and bi:carbonate - 79421B/44
- *STAR/ 02.01.79 STAROKOZHEV V A D14 J01 *SU -787-090
Centrifugal separator for hot liquid substances - 63699D/35
- *STAU 15.12.76 STAUFFER CHEMICAL CO D11 *US 4283-435
Protein enriched biscuits - 64107D/35
- STAU 19.11.79 STAUFFER CHEMICAL CO D13 = J5 6085-264
Reducing the gelation temp. of egg albumen - 42418D/24
- STBR 19.11.79 STANDARD BRANDS INC A97 D13 = DE 3043-656
Low-fat liq. spreads - 40215D/23
- *STED/ 15.02.80 STEDING R D14 *DE 3005-604
Strainer for solids sepn. from liquids - 62494D/35
- *STRK 06.02.80 STORK BEPAK BV D17 *EP --33-995
Shaping cubes from granular material - 62628D/35
- SUID 15.10.73 SUIDO KIKO KK D15 J01 = J5 0065-037
Sand and sludge scooper - 63560D/35
- *SUID- 15.10.73 SUIDO KIKO KK D15 J01 *J8 1033-126
Sand and sludge scooper - 63560D/35
- SUMO 23.10.78 SUMITOMO CHEM CO LTD A88 D15 J01 (A14) = US 4283-359
Polyacrylonitrile reverse osmosis membrane prepn. - 33011C/19
- SUMO 23.10.78 SUMITOMO CHEMICAL CO LTD A88 D15 J01 (A14) = US 4283-359
Polyacrylonitrile reverse osmosis membrane prepn. - 33011C/19
- SUMS 02.03.77 SUMITOMO SPEC METAL KK D15 = J8 1033-158
Treating waste water contg. suspended particles - 77472A/43
- SUSO 25.04.73 SUOMEN SOKERIOY A91 D17 E13 = SU -786-904
Ion exchange recovery of xylose or xylitol from pentose mixts. - 80301V/46
- SUTU 03.06.71 SUTURES INC A96 D22 F06 = J4 8005-292
Sutures - with long lasting germicidal properties - 57476T/36
- SUTU 03.06.71 SUTURES INC A96 D22 F06 = J8 1032-940
Sutures - with long lasting germicidal properties - 57476T/36
- *TAKE/ 19.12.79 TAKEDA I D21 E16 *J5 6087-514
Compsn. for accelerating hair growth - 63436D/35
- TATL 14.03.77 TATE & LYLE LTD D17 (D16) = J8 1032-917
Polysaccharide(s) prepd. by culture of *Azotobacter vinelandii* - 51675A/29
- TATL 26.04.77 TATE & LYLE LTD D18 (D13 D21) = IL --54-551
Smoking products based on tobacco contg. taumatin or monellin - 63444A/36
- TATL 07.11.79 TALRES DEV NA NV B03 D16 E13 (B07 D13) = J5 6085-295
Iso: maltulose prodn. from sucrose - 38547D/22
- TATL 07.11.79 TALRES DEV NA NV B03 D13 E13 (B07) = J5 6086-122
Tablets contg. iso: maltulose as diluent - 38551D/22
- TATL 09.12.80 TATE & LYLE LTD A11 D16 F06 G02 = GB 2069-516
Xanthan gum of low intrinsic viscosity - 55427D/31
- *TECD 07.02.80 TECHNICON INSTR CO A96 B04 D16 S03 (S05) *EP --34-050
Immunoassay of antigens using non-radioisotopic label - 62656D/35
- *TEXT= 12.01.79 TEXTILE LIGHT IND A89 D18 J01 S03 *SU -785-762
Thin-layer chromatograms of tanning agents - 63650D/35
- THER- 23.01.79 THERA GES B05 D13 = US 4283-392
Infusion soln. for parenteral feeding - 57316C/33
- THOM 05.11.77 THOMAE K GMBH B02 D13 E13 = IL --55-868
Furo and thieno (3,2-d)-isothiazole-3-one-1,1 di:oxide(s) - 35252B/19
- *TKEN 13.12.79 TAKENAKA KOMUTEN KK D15 *J5 6085-347
Treating toilet flushing water for recycling - 63139D/35
- TKRD- 20.10.79 TKR DRITTE TABAK D18 E16 = J5 6085-275
Tobacco additive for reducing amt. of harmful substances in smoke - 30816D/18
- TOBC 06.07.71 TOBACCO RES & DEV INST D16 = IT 1051-427
Improving fermented drinks - 04493U/04
- *TOCH- 11.12.79 TOCHIGI HOKUBU ISEK D15 *J5 6084-607
Solid-liq. separator - 62981D/35
- TOKT 27.08.73 THREE BOND CO LTD C03 D12 (D13 D15 D16) = IT 1051-433
Treating effluent water e.g. from slaughterhouses - 18666W/11
- *TOKU 14.12.79 TOKUYAMA SODA KK D14 J01 *J5 6084-629
Drying agent comprises porous silica laminae and fibres - 62999D/35
- *TOLL- 15.01.80 TOLLEY PROCESS ENG D15 J02 *GB 2069-353
Liq. agitating and/or aerating appts. - 62830D/35
- TOVA= 26.12.78 TOMSK VACCINES SERA B04 D16 *SU -787-032
Prepn. of hyaluronidase enzyme from human placenta - 63673D/35
- TOXN 18.01.80 TOYO JOZO KK B04 D21 (D16) *GB 2069-499
Acidic protein obtd. from *Arthrrium* sp. M5071 etc. - 62875D/35
- TOYJ 25.03.77 TOYO SODA MFG KK D16 = J8 1032-912
Culturing *Pseudomonas viscogena* in a medium contg. methanol - 84585A/47
- TOYJ 10.08.77 TOYO SODA MFG KK D16 = J8 1033-072
Bacterial body prepn. - 30710B/16
- TOYJ 05.10.77 TOYO SODA MFG KK C03 D16 (D13) = J8 1033-073
Prodn. of bacterial body useful as feed etc. - 43125B/23
- TOYM 17.12.79 TOYOBO KK D15 *J5 6087-405
Reverse osmotic module - 63395D/35
- *TOYO- 18.12.79 TOYO FILTER KOGYO K D15 *J5 6087-414
Liq. filter giving continuous and automatic operation - 63403D/35
- TRAN- 04.04.77 TRANSFRESH CORP D13 = IL --53-363
Inhibition of bacterial growth in fruit and vegetable - 88552A/49
- TREU- 13.09.71 TREUHANDVEREINIGUNG D21 E13 = J8 1032-962
Hair care cmpsn - 30564U/22
- *TRIG 08.01.80 TRAITEMENT INDUS GADOUES D16 *FR 2473-038
Plant to mfr. compost by fermenting organic waste - 62704D/35
- *TSUK 15.12.79 TSUKIHOSHIKK D13 E13 *J5 6086-108
Aq. thiabendazole dispersion - 63196D/35
- UCHI/ 30.07.75 UCHIMURA K A96 B07 D22 = J8 1033-367
Plaster contg. antiinflammatory and analgesic agents - 21065Y/12
- *UGLI= 27.11.78 UGLICH BUTTER CHEES D13 *SU -786-962
Mixt. for cheese spread prodn. - 63662D/35
- UHDE 24.05.77 UHDE F GMBH D15 = GB 1596-799
Demineralised water prodn. - 70828A/40
- *UMEA= 12.02.79 UKR MEAT DAIRY IND D21 *SU -787-026
Face cream compsn. - 63667D/35
- UNCH- 16.08.78 UNITED CHEM CORP D21 = BR 7908-731
Anhydrous multi-purpose cosmetic compsn. - 23708C/13
- UNIC 21.11.79 UNION CARBIDE CORP D22 = J5 6085-348
Purificn. of ethylene oxide-di:chloro di:fluoromethane mixt. - 15388D/09
- UNIL 02.04.71 LEVER BROS CO D13 E17 = US 4283-436
Hard fats - 68612T/43
- UNIL 05.02.73 UNILEVER NV A96 D21 = IT 1051-257
AQ shampoo contg hair-cosmetic agent - 58764V/33
- UNIL 10.03.75 UNILEVER NV C03 D23 E17 (D13) = SU -786-912
De-waxing triglyceride oils - 74334X/40
- UNIL 23.11.76 UNILEVER LTD B05 C03 D13 = GB 1596-505
Premix compsn. contg. minor essential food ingredient - 36665A/21
- UNIL 03.10.78 LEVER BROTHERS CO A97 D25 E34 = US 4283-299
Particulate alkaline detergent contg. tri:poly:phosphate - 27738C/16
- UNIL 17.11.78 UNILEVER NV A92 D25 = BR 7908-911
Storage-stable polypropylene bag contg. detergent compsn. - 41484C/23
- UNIL 17.11.78 UNILEVER NV A92 D25 = BR 7908-912
Closed water insoluble bag contg. particulate detergent compsn. - 38733C/22
- UNIL 06.07.79 LEVER BROTHERS CO D25 E16 = US 4283-302
Particulate bleaching compsns., esp. washing powders - 05715D/05
- *UNIL 07.02.80 UNILEVER LTD D24 E12 H07 *EP --34-047
Alkali metal carboxylate prodn. from acid or fat - 62653D/35
- *UNIL 07.02.80 UNILEVER LTD D25 E16 *EP --34-048
Cleaning and depositing perfume on surfaces - 62654D/35
- *UNIL 07.02.80 UNILEVER LTD D13 *EP --34-065
Tri:glyceride compsn. for replacing cocoa butter - 62665D/35
- UNIO 18.01.77 UCB SA B02 C02 D13 = SU -786-902
6-Amino-2-spiro-heterocycl-yl-penam carboxylic acids - 53859A/30
- USDC 21.08.78 US SEC OF COMMERCE B04 C03 D16 = BR 7908-784
Purified cell growth promoting material from serum - 16460C/09
- *USGY 20.08.79 US GYPSUM CO C03 D13 (C04) *US 4283-423
Prodn. of nutrient compsn. contg. urea and calcium sulphate - 64099D/35
- UYRO- 07.01.80 UNIV OF ROCHESTER B04 D16 = NO 8003-779
Recombination bacteriophage for heterologous cloning of DNA - 55411D/31
- *UYSL- 30.11.78 UNIV ST LOUIS B04 D16 *US 4283-391
Antibiotic paramycin from *streptomyces alboniger* ATCC 12461 - 64089D/35
- VERE 06.06.75 VER PAPIERW SCHICKEDANZ A96 D22 F07 = DS 2525-210
Absorbent material contg. cellulose fibres and thermoplastic binder - 94526X/51
- *VIBR- 07.01.80 VIBRASUG AB D22 *SE 8000-093
Mattress sterilisation plant cycle - D/35
- *VISK- 08.02.80 VISKO OY AB A97 D12 *DE 3004-719
Continuous internal coating of cellulose hose - 62405D/35
- *VLPE= 05.10.78 VOLG PETRO IND INST D22 H01 *SU -785-465
Inhibition of sulphate-reducing bacteria growth in oil strata - 63635D/35
- *VOGE/ 09.01.80 VOGEL A D11 *FR 2473-267
Cake having a long storage time not contg. flour - 62723D/35
- *VSCO/ 10.10.78 VAN SCOTT E J B05 D21 *US 4283-386
Hair grooming treatment - 64086D/35
- *VVBZ- 21.12.79 VVB ZUCKER & STARKE D14 *DE 3043-730
Centrifugal flash dryer - 62557D/35
- *WACK/ 09.02.80 WACK O D25 *DE 3004-835
Cleaning water-resistant surface e.g. wheels - 62412D/35
- *WASS- 16.01.80 INST WASSERWIRTSCHA D15 *DD -148-627
Water restoration by biological sediment decomposition - 62379D/35
- *WATA/ 17.12.79 WATANABE I D15 *J5 6087-406
Fresh water prodn. from sea water - 63396D/35
- *WATE= 07.01.80 WATER PROBLEMS RES D15 *FR 2472-943
Floating decanter with tubular risers to clarify river water etc. - 62694D/35

- *WATM- 08.02.80 WATNEY MANN TRUMAN D16 *GB 2069-527
Controlling final carbohydrate content of beer - 62895D/35
- WEBE- 16.01.79 WEBER W ING GMBH D15 = BR 8005-903
Biological purificn. of waste water in open tank - 41509C/24
- WEIN/ 11.01.80 WEIN G D11 = FR 2473-274
Preserving precooked foods esp. loaves by quick freezing - 36370D/21
- WEIN/ 11.01.80 WEIN G D11 = GB 2069-313
Preserving precooked foods esp. loaves by quick freezing - 36370D/21
- WEIN/ 11.01.80 WEIN G D11 = SE 8100-096
Preserving precooked foods esp. loaves by quick freezing - 36370D/21
- WELA 16.08.78 WELLA AG D21 E14 (E23) = BR 7908-781
Oxidative hair dyeing compsn. - 15077C/09
- WELA 27.10.79 WELLA AG B07 D21 E24 = J5 6084-783
Aerosol compsn. contg. hydrophilic and hydrophobic components - 34583D/20
- *WELA 19.02.80 WELLA AG A96 D21 *DE 3006-180
Hair-fixing compsn. - 62548D/35
- WELA 19.02.80 WELLA AG A96 D21 = GB 2069-335
Hair-fixing compsn. - 62548D/35
- WELL 28.11.79 WELLCOME FOUNDATION LTD B04 D16 S03 (S05) = J5 6085-285
Preservation of fixed monolayers of tissue culture cells - 44420D/25
- WESS- 24.05.78 WESSANEN NEDERLAND D17 = US 4283-232
Washing particulate feedstock esp. starch in hydrocyclones - 86325B/48
- WILK 06.10.70 WILKINSON SWORD LTD B06 C03 D22 E33 = IT 1051-241
Magnesium silicate, hypochlorite composn - 24031T/15
- WITC 19.02.80 WITCO CHEM CORP D25 E17 = GB 2069-490
In situ prepn. of alkyl sulpho:succinate detergent compsns. - 27267D/16
- WMAC- 17.08.78 WESTERN STATES MACH D17 J01 = BR 7908-779
Centrifuge with closable outlet in basket bottom - 05487C/04

- YAMA/ 27.05.77 YAMAGA R D21 E33 (E32) = J8 1033-370
Dental sealing composition - 88144A/49
- YAMS 22.09.78 YAMASA SHOYU KK B04 D16 S03 (D13) = J8 1032-919
L-Lysine-alpha-oxidase prodn. from Trichoderma viride - 64923B/36
- YEDA 21.11.79 YEDA RES & DEV CO LTD B04 D16 = J5 6085-296
Highly purified human interferon prepn. - 42601D/24
- *YISS 13.03.79 YISSUM RES DEV CO D11 E12 (E17) *IL --56-861
Dough additives - D/35
- YOKO- 23.05.78 YOKOHAMA YUSHI KOGY C02 D13 E13 = J8 1033-366
Fine powdery coated L-ascorbic acid (salt) prepn. - 04457C/03
- *YOSH 14.12.79 YOSHITOMI PHARM IND KK C03 D22 *J5 6086-106
Synergistic slime controlling mixt. - 63194D/35

- ZINJ 17.01.77 ZINK J CO D15 J02 = J8 1033-133
Liquid aeration by dividing stream into vertical sheets - 36446A/20

F	11056-T BCDE BE -770-744 T07 DE 2138-000 T08 NL 7110-401 T08 J4 7003-738 T10 ZA 7104-028 T14 FR 2099-367 T25 GB 1318-828 U22 CH -549-094 V26 CA -950-848 V30 US 3891-504 W27 IT 1051-240 D35	30564-U DE DE 2248-290 U22 NL 7214-875 U22 FR 2159-400 U35 J4 8058-149 U43 GB 1354-446 V22 CH -566 133 W43 CA -986-414 X16 J8 1032-962 D35 +	AT 7400-888 X32 CH -590-658 Y36 CA 1032-873 A26 IT 1051-257 D35	54012-W DE BE -824-914 W33 NL 7500-071 W33 DE 2404-070 W34 SE 7500-075 W38 J5 0111-241 W44 FR 2258-834 W46 AT 7500-627 X32 US 4021-539 Y19 GB 1497-875 A02 CH -609-240 B12 IT 1051-005 D35	CA 1033-284 A27 CH -604-803 A41 US 4143-524 B12 AT 7509-193 C49 IT 1051-299 D35	84021-X D J5 1106-750 X45 J8 1032-896 D35	94526-X ADF DE 2525-210 X51 NL 7605-510 X52 FR 2313-488 Y12 CH -595-495 A12 AT 7603-617 B40 DS 2525-210 D35	DK 7605-701 Y36 FR 2335-235 Y42 BR 7608-526 A03 DD -129-330 A14 AT 7609-348 A18 ZA 7703-401 A20 + GB 1521-168 A33 CA 1055-487 B24 DS 2655-844 B24 CS 7608-288 C15 US 4202-885 C21 HU 7019-114 C51 RO -69-485 D07 CH -622-948 D25 J8 1028-152 D30 SU -786-855 D35
R	24031-T BCDE BE -773-330 T15 DE 2147-960 T17 NL 7113-572 T17 J4 7005-157 T18 FR 2112-257 T41 DD -91-804 T43 CH -531-463 U07 ZA 7106-582 U27 GB 1367-067 V38 US 3843-548 V44 CA -962-944 W10 SU -430-531 W22 RO -64-359 D15 IT 1051-241 D35	44484-U BCD DE 2263-121 U32 + FR 2166-143 U43 GB 1376-500 V49 + J4 9082-613 V50 J4 8075-505 V03 J7 4027-327 V32 US 3859-362 W03 US 3932-668 X04 CA -984-856 X12 + DS 2263-121 X42 + J7 8020-006 A29 J8 1033-373 D35	66577-V ACD DE 2409-348 V38 US 3852-490 V51 FR 2220-292 W01 CA 1017-470 Y39 IT 1051-432 D35	69752-V DE DE 2407-817 V40 NL 7401-643 V40 BE -812-307 V41 FR 2221-446 W02 J4 9125-341 W05 GB 1409-696 W42 CH -573-389 X19 CH -579-913 X42 DS 2407-817 A25 CA 1039-305 A41 NL -159-085 B06 J5 6022-723 D17 J8 1032-978 D35	54013-W DE BE -824-915 W33 NL 7500-070 W33 DE 2404-071 W34 SE 7500-076 W38 FR 2258-835 W46 J5 0129-754 W50 AT 7500-626 X07 GB 1479-543 Y28 CH -596-836 A15 US 4143-160 B11 IT 1051-004 D35	CA 1033-284 A27 CH -604-803 A41 US 4143-524 B12 AT 7509-193 C49 IT 1051-299 D35	94526-X ADF DE 2525-210 X51 NL 7605-510 X52 FR 2313-488 Y12 CH -595-495 A12 AT 7603-617 B40 DS 2525-210 D35	DK 7605-701 Y36 FR 2335-235 Y42 BR 7608-526 A03 DD -129-330 A14 AT 7609-348 A18 ZA 7703-401 A20 + GB 1521-168 A33 CA 1055-487 B24 DS 2655-844 B24 CS 7608-288 C15 US 4202-885 C21 HU 7019-114 C51 RO -69-485 D07 CH -622-948 D25 J8 1028-152 D30 SU -786-855 D35
762-R D	24031-T BCDE BE -773-330 T15 DE 2147-960 T17 NL 7113-572 T17 J4 7005-157 T18 FR 2112-257 T41 DD -91-804 T43 CH -531-463 U07 ZA 7106-582 U27 GB 1367-067 V38 US 3843-548 V44 CA -962-944 W10 SU -430-531 W22 RO -64-359 D15 IT 1051-241 D35	44484-U BCD DE 2263-121 U32 + FR 2166-143 U43 GB 1376-500 V49 + J4 9082-613 V50 J4 8075-505 V03 J7 4027-327 V32 US 3859-362 W03 US 3932-668 X04 CA -984-856 X12 + DS 2263-121 X42 + J7 8020-006 A29 J8 1033-373 D35	66577-V ACD DE 2409-348 V38 US 3852-490 V51 FR 2220-292 W01 CA 1017-470 Y39 IT 1051-432 D35	69752-V DE DE 2407-817 V40 NL 7401-643 V40 BE -812-307 V41 FR 2221-446 W02 J4 9125-341 W05 GB 1409-696 W42 CH -573-389 X19 CH -579-913 X42 DS 2407-817 A25 CA 1039-305 A41 NL -159-085 B06 J5 6022-723 D17 J8 1032-978 D35	54013-W DE BE -824-915 W33 NL 7500-070 W33 DE 2404-071 W34 SE 7500-076 W38 FR 2258-835 W46 J5 0129-754 W50 AT 7500-626 X07 GB 1479-543 Y28 CH -596-836 A15 US 4143-160 B11 IT 1051-004 D35	CA 1033-284 A27 CH -604-803 A41 US 4143-524 B12 AT 7509-193 C49 IT 1051-299 D35	94526-X ADF DE 2525-210 X51 NL 7605-510 X52 FR 2313-488 Y12 CH -595-495 A12 AT 7603-617 B40 DS 2525-210 D35	DK 7605-701 Y36 FR 2335-235 Y42 BR 7608-526 A03 DD -129-330 A14 AT 7609-348 A18 ZA 7703-401 A20 + GB 1521-168 A33 CA 1055-487 B24 DS 2655-844 B24 CS 7608-288 C15 US 4202-885 C21 HU 7019-114 C51 RO -69-485 D07 CH -622-948 D25 J8 1028-152 D30 SU -786-855 D35
7365-R D	24031-T BCDE BE -773-330 T15 DE 2147-960 T17 NL 7113-572 T17 J4 7005-157 T18 FR 2112-257 T41 DD -91-804 T43 CH -531-463 U07 ZA 7106-582 U27 GB 1367-067 V38 US 3843-548 V44 CA -962-944 W10 SU -430-531 W22 RO -64-359 D15 IT 1051-241 D35	44484-U BCD DE 2263-121 U32 + FR 2166-143 U43 GB 1376-500 V4						

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J5 2115-806 Y45	PT -67-384 B07	J5 3113-854 A45	BE -867-431 A40	BE -866-890 A46	WP 7900-076 B08	IL -55-868 D35+	CS 7901-653 C32
J8 0045-119 C50	GB 1549-069 B30	FI 7800-797 A46	NL 7805-466 A50	NL 7804-659 A48	SE 7802-696 B23		DD -143-882 C46
US 4283-346 D35+	AT 7708-817 C23	FR 2384-020 A51	DE 2723-297 A51	DE 2820-657 A48	BR 7808-673 B35	37168-B DH	ZA 7901-181 C47
	CS 7708-265 D17	ZA 7801-472 B18	SE 7805-896 B02	SE 7805-359 A51	BE -875-785 B36	BE -871-955 B20	US 4282-890 D35+
90052-Y CD	IL -53-576 D35	GB 1548-078 B27	J5 4039-950 B1B	DK 7802-066 B01	GB 2023-429 C01+	DE 2848-894 B21	
BE -855-758 Y51		DS 2809-777 C13	FR 2401-100 B22	NO 7801-657 B02	EP -6-881 C04	NL 7811-234 B22	73767-B AD
DE 2727-388 A01	29091-A D	US 4234-688 C49	AT 7803-744 C05	BR 7802-942 B02	NL 7902-075 C08+	GB 2008-600 B23	DE 2813-847 B41
SE 7706-991 A04	DE 2745-221 A16	J8 1032-917 D35	DS 2723-297 D29	J5 3141-220 B03	DK 7900-933 C12+	DK 7803-891 B26	EP -4-620 B42
J5 2156-943 A06	SE 7711-280 A20		GB 1596-799 D35	FR 2390-449 B07	FR 2433-931 C23+	BR 7807-431 B32	BR 7901-974 B50
NO 7702-112 A06	J5 3047-553 A23	53859-A BCD		ZA 7802-546 B28	CH -621-698 D13	FR 2408-653 B34	FI 7901-053 B51
NL 7706-666 A06	FR 2366-798 A27	DE 2801-849 A30	72688-A D	PT -68-023 B31	DE 2856-963 D30	J5 4145-290 B51	EP G004-620 D21
DK 7702-665 A10	ZA 7705-741 A38	BE -862-972 A30	BE -865-488 A41	AT 7803-383 C44	US 4283-173 D35	J8 1028-921 D31	DS 2960-338 D35
FR 2354-713 A13	GB 1553-008 B38	NL 7800-397 A31	NL 7803-436 A42	GB 1596-599 D35		J5 6085-284 D35	
AT 7704-308 B22	US 4194-018 C13	SE 7800-367 A35	DE 2813-147 A42		15971-B D	J5 6085-292 D35	76449-B ADE
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CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

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WEEK D36
21 OCTOBER 81
64182D - 66066D

ABSTRACTS

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II - PATENTEE

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VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
AUSTRIA	15 AUG 81	7,210,498 - 8,100,393
BELGIUM		
-Delayed	17 AUG - 23 AUG 81	887,523 - 887,626
-Non Delayed	17 AUG 81	888,456 - 888,549
BRAZIL	11 AUG 81	7,906,656 - 8,103,155
CANADA	7 JUL 81	1,104,301 - 1,104,750
E.GERMANY	10 JUN 81	148,704 - 148,853
DENMARK	10 AUG 81	7,904,339 - 8,005,556
W.GERMANY		
-OLS	27 AUG 81	2,820,492 - 3,049,007
-DAS	27 AUG 81	1,952,607 - 3,006,170
EUROPE		
-Unexamined	26 AUG 81	34,141 - 34,579
-Granted	26 AUG 81	00,002 - 12,508
FRANCE	24 JUL + 31 JUL 81	2,473,836 - 2,474,270 2,474,271 - 2,474,806
UNITED KINGDOM	3 SEP 81	1,596,801 - 1,597,350 2,069,801 - 2,070,400
JAPAN		
-Unexamined	—	48,015,861 - 55,081,580
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-Reissues	18 AUG 81	Re30,709 - Re30,716
-Patents	18 AUG 81	4,283,797 - 4,285,066
PCT	20 AUG 81	8,102,238 - 8,102,374

*Includes numbered Basics from Weeks D30 (CPI) and D31 (EPI)

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	Patent No	IPC
MEDA-				A89			69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)										
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)										
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26										

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A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.

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21/22 Sept	Chicago	A Coding/Retrieval		
23 Sept	Chicago	Online Searching		
23 Sept	Chicago		Online Searching	
24/25 Sept	Chicago		BCE Coding/Retrieval	
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9/10 Nov	Milan	BCE Coding/Retrieval		
11 Nov	Milan	Online Searching		



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D1: FOOD; FERMENTATION

D11: BAKING

KUHL/ ★ D11 64228 D/36 ★DD-148-713
Multideck baking oven charging device - with shearlegs lifting table and roll/off roll/on frame controlled by push buttons

KUHLMANN M 28.01.80-DD-218678

(10.06.81) A21b-03/04

28.01.80 as 218678 (39HM)

A charging device, for a multi-deck baking oven for handling dough mouldings, e.g. for backing of loaves of bread and crusty rolls, is a shear-leg lifting table with a plywood top on which an electromechanical chain drive can reciprocate a roll-off roll-on frame. All movements are controlled by a push button control panel.

This saves the heavy labour of manual oven charging operations. The device is of simple design and takes up little space. (13pp)

MILC- ★ D11 64273 D/36 ★DE 3005-866
Ready-to-bake curd mixt. for cheese-cake prepn. - contg. fresh cottage cheese and cheese, fresh eggs, sugar, starch mixt. and flavouring

MILCHWERKE REGENSBU 16.02.80-DE-005866

(27.08.81) A21d-10/02 A23c-19

16.02.80 as 005866 (200DJ)

In the prepn. of a stable, ready-to-bake curd mixt. for cheese cake, a specially treated fresh cheese is added to fresh cottage cheese and worked to a mixt. together with sugar, starch mixt., stabiliser mixt., flavouring materials and fresh eggs. During working pH 4.5-4.6 is set with an organic acid. Mixt. dry solids content is kept at 29-31%. The constituents are mixed homogeneously in a mixer and the compsn. is heated to 70 deg.C while maintaining a constant dry solids content.

The curd mixt. remains fresh and moist for a long time, to give a high-quality cheese-cake. (8pp)

WERN ★ D11 64340 D/36 ★DE 3046-029
Dough moulding machine - with turnover bottom mould on endless chain for change of dough shape

WERNER & PFLEIDERER 14.01.80-AT-000166

(27.08.81) A21c-09/08 A21c-11/06

06.12.80 as 046029 (39DJ)

A moulding machine to produce at least two different shapes of dough, for example crusty rolls of different size, is fitted with an endless chain carrying the bottom mould to a punching machine with the top mould. The bottom moulds are hinged to the chain. At one point, their support can be shifted and a slider is used to turn the mould through 180 deg. if each side carried a different cavity.

An endless chain carries the bottom moulds which have two different shapes of cavity and are hinged at the centre. During normal operation with the corresponding top mould, operated by the punching machine, the moulds are supported by guide rails. If the shape has to be changed, the section is moved sideways by a pull rod so that a profiled plate turns the bottom mould through 180 deg.

This facilitates a quick change in the production runs of bakeries. (12pp)

HAAS/ ★ D11 64588 D/36 ★GB 2069-824
Wafer baking compartment with lateral sealing strips - formed with gap connected to compartment for baking of excess dough

HAAS F 27.02.80-AT-001086

(03.09.81) A21b-05/02

28.02.81 as 006042 (295AT)

A wafer-baking compartment comprises two plates located one above the other. A lateral seal consists of two strips which are each fastened to one of the plates and which define between them a gap resembling a baking compartment. Steam ducts extend into the strip and provide communication between the wafer-baking compartment and the gap.

Pref. the gap is offset downwardly relative to the baking- face of the lower plate. The gap is pref. inclined relative to the baking plates at 0 to 85 degs.

Excess dough passes through the steam ducts into the gap where it is baked and is therefore easy to remove at the end of the baking process. (5pp)

FOOD= ★ D11 65463 D/36 ★SU-787-280
Bread loaves orienter - has chute bottom step above pivot of free lever bounding gap with chute side

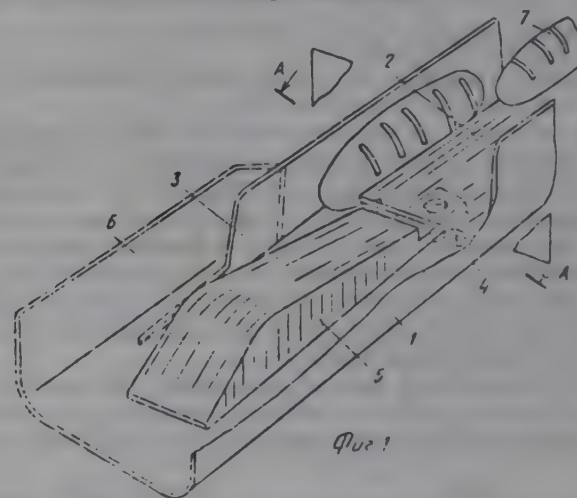
FOOD IND PLANTS DES 01.02.79-SU-721544

Q31 (15.12.80) B65b-35/56

01.02.79 as 721544 (89WD)

The reliability of bread loaf orienting mechanism is enhanced by preventing jams at the step of the chute. The bottom of the latter, below the step, features a transversely moving lever 5 freely pivoted on stud 4 beneath the step. The longitudinal plate 3 is fixed between the trough and the lever and its top edge is chamfered towards the lower end of the lever.

The lever 5 has a longitudinal cross-section matching one and half of the length of handled loaf 7 while its width corresponds to the width of the step in the chute. The loaves slide down by gravity towards the support wall 6 of the chute I and reach the gap between that wall and the bottom step. Further advance deflects the lever 5 which maintains the correct position of the bread loaf. Bul. 46/15.12.80. (3pp Dwg. No.1)



LIFO= ★ D11 65757 D/36 ★SU-789-355
Inter-conveyor baked products transferrer - has tip/up plate actuated by chain conveyor without disturbing arrangement in rows

LITH MIN FOOD IND 16.10.78-SU-677680

Q35 (25.12.80) A21c-09/08 B65g-47/53

16.10.78 as 677680 (29MI)

Device for transferring objects from one conveyor to another set at right angles to one another, e.g. in the baking industry, has conveyor with drive and tensioning rollers, plus a plate pivotally mounted under the belt, and a mechanism for moving the plate. It also includes a chain conveyor and a motor. Objects are transferred without shifting their longitudinal rows, by fitting a mechanism to hold the belts of the conveyors, consisting of brake shoes pivotally mounted on both sides of the plates, and a rod pivotally connected to a plate by a spring-loaded beam. Bul. 47/23.12.80. (4pp)

D12: MEAT; FISH PROCESSING

STOL- ★ D12 64210 D/36 ★ BE-888-504
Machine to insert sachet of giblets into drawn chicken - has plunger to drive sachet through funnel positioned over entry to chicken cavity

GEBR STOLLE CO GMBH 22.04.80-DE-015336
(17.08.81) A22c

21.04.81 as 888504 (448BZ)

A process and a machine for inserting a sachet contg. prepared giblets into the cavity of a drawn and cleaned chicken. This insertion is effected while the chicken is suspended by its two legs from a main conveyor.

Each filled sachet is now placed into one of a series of open-ended, downwardly convergent, pref. coned funnels fitted to a second conveyor. The funnel is conveyed to a position immediately above a chicken hanging from the main conveyor. At this point, a plunger is displaced down through the funnel, driving the sachet into the cavity inside the chicken.

Just before the plunger transfers the sachet into the chicken, the narrow end of the funnel is pref. inserted slightly into the entry of the cavity.

The two conveyors are pref. both advanced intermittently and in synchronism, coaxially around a fixed turning station. The station pref. has cam tracks to displace funnel and plunger as the second conveyor moves around the station.

Insertion of sachets of prepd. giblets into drawn chickens ready for distribution or freezing. Mechanisation of labour-intensive operations to reduce prodn. costs. (12pp)

GENO D12 48096 C/27 #EP--34-227
Dry coating compsn. for baked fowl - imparting texture and appearance of fried fowl

GENERAL FOODS CORP 23.10.78-US-953399 (14.02.80-EP-300435)

(26.08.81) *US4208-442 A231-01/17

14.02.80 as 300435 (955BZ) (E) US3769027 US2623825 DE2338180 E(AT BE CH DE FR GB IT LU NL SE)

A dry coating compsn. for application to a moistened fowl, which after baking forms a crisp, uniform adherent coating giving the taste, texture and appearance of fried fowl, contains 60-78% bulking agents, comprising 0-68% crumbs or fines, and 7-75% of a flour, with 3-13% protein and 4-13% of a binding agent comprising 0-13% of a modified starch and 0-13% of a dextrin of D.E 5-50. A premix is prepd. contg. the flour, 5-95% of the protein, and 15-85% of the binding agent, mixed with water, and dried. The compsn. contains 10-78wt.% of the premix.

The compsn. is easy to use. The coating has a more uniform appearance crisper texture, better adhesion, a cleaner, less powdery mouthfeel and allows less shrinkage of meat. (19pp)

MITN ★ D12 64434 D/36 ★ EP--34-489
Storing processed fish and roe - in gas impermeable bag, together with oxygen absorbent

MITSUBISHI GAS CHEM IND 21.02.80-JP-020886 (15.02.80-JP-017246)

(26.08.81) A23b-04/06

13.02.81 as 300616 (+20.2.80-JP-019888) (478HM) (E) No-Citns. E(DE GB IT)

Processed fish or roe is stored by placing the material in a gas-impermeable packaging bag or airtight container together with an O₂-adsorbent (I) and storing it at 20 to +25 deg.C.

(I) is pref. a reducing compsn., esp. Fe powder with e.g. a metal halide. The compsn. is pref. sealed in a bag prepd. from microporous film with Gurley gas permeability 1000-100,000 sec./100 ml. air. The gas-impermeable packaging bag pref. has O₂ permeability less than 50 ml/m² atom.d., and is suitably a polyvinylidene chloride film, or a film coated or laminated with polyvinylidene chloride.

Inexpensive process does not detract from the quality or taste of the prod. In addn, teriyaki of adequate thickness and taste may be prepd. from eels stored by the method. (19pp)

COME- D12 78350 A/44 = GB 1596-873
Brine pickling process for meat, esp. hams - effected in rotating churn in vacuo and subsequently under pressure in inert atmos.

COMET-INOX-SA 27.04.77-FR-013471

(03.09.81) *BE-866-443 A23b-04/02

20.04.78 as 015596 (1376AS)

In the pickling of meat in liq. brine or dry salt the container is evacuated, an inert or neutral gas is introduced, and the container is evacuated about an horizontal axis. The meat pieces are removed by establishing atmospheric pressure in the container.

The vacuum is pref. applied before the pickling medium is

introduced in the container. Pickling time is reduced. (6pp)

FARH D12 38504 A/22 = GB 1596-922
Moulded objects, esp. packaging materials, including sausage skins - based on plasticised cellulose hydrate and also contg. ester(s) conferring durable plasticisation

HOECHST AG 01.12.76-DE-654427

A11 + Q34 (A25 A97) (03.09.81) *BE-861-282 A22c-13 C081-01/06 29.11.77 as 049632 (945AS)

Shaped article comprises cellulose hydrate (I) and, as permanent plasticiser; at least 5 wt.% based on (I), of an ester (II) of a cpd. having at least 2 OH gps., at least 1 being esterified by a 9-24C aliphatic monocarboxylic acid.

The article also contains water and opt. a secondary plasticiser. (II) is e.g. glycerol mono- or di-stearate or polyethylene glycol mono- or distearate.

The article shrinks little on drying and is sufficiently supple for used partic. as artificial sausage skin. Sausages having such skins can be cut open without tearing, even at relatively low humidity and can be transported without difficulty. (17pp)

FARH D12 38503 A/22 = GB 1596-923
Permanently plasticised modified hydrated cellulose article - esp. sausage skin, prepd. by passing aq. alkaline viscose soln. through perforate plate

HOECHST AG 01.12.76-DE-654418

A11 + Q34 (A25 A97) (03.09.81) *BE-861-281 A22c-13 C081-01/06 29.11.77 as 049633 (945AS)

Mfr. of a shaped article comprising chemically modified cellulose hydrate is claimed. A liq. mixt. of aq. alkaline viscose soln. and a permanent plasticiser for cellulose hydrate, contg. 9-24C aliphatic gp(s) is extruded from a die into a precipitant liq. to produce a formed structure.

This is treated with regenerating and washing liqs, then treated while in gel state with aq. acid soln. of a cyclic urea cpd. having methylol gps. The prod. is heated, dried and opt. moistened with water.

The article has high swelling strength and high mechanical strength due to consolidation by crosslinking. It retains extensibility and is partic. an artificial sausage skin. (11pp)

LEFI- ★ D12 64587 D/36 ★ GB 2069-815
Electrical stimulation bar for animal carcass - movable between sterilising position and carcass engaging position

LEFIELL CO 21.02.80-US-123479

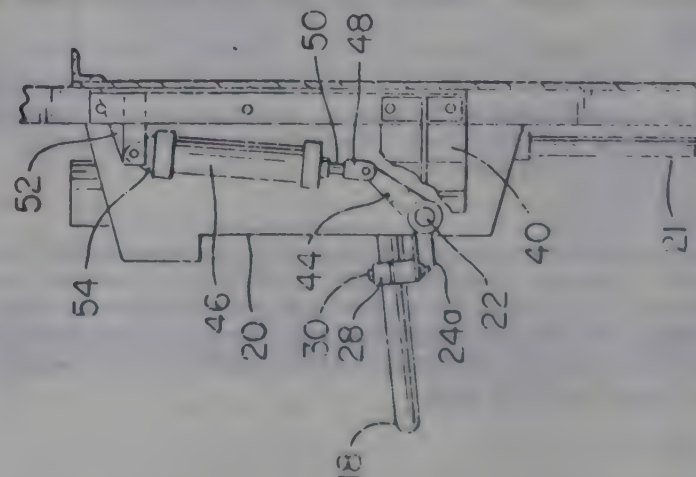
X25 (03.09.81) A22c-09

22.08.80 as 027462 (295RP)

Electrical stimulation is applied to an animal carcass as it is transported along a predetermined path relative to a base. A sterilisation chamber is mounted on the base. An electrical stimulation bar is movably mounted between a first position in which it extends along the predetermined path for contacting the carcass, and a second position within the sterilisation chamber.

Pref. the bar is moved between the two positions by rotation about an elongated actuating shaft, from which it is electrically insulated.

Electrical stimulation produces acceleration of the meat tenderisation by its own enzymes. The method replaces a manual process. (8pp Dwg.No.7)



NNSH ★ D12 64847 D/36 ★ J5 6088-742
 Pasty meat food prodn. - by dispersing gluten in acidic or alkaline water, adding oil and fat, emulsifying, spray-drying and adding emulsion to meat

NIPPON SHINYAKU KK 18.12.79-JP-165318
 (18.07.81) A22c-11 A231-01/32

18.12.79 as 165318 (5HM)
 Method comprises combining powdery oil and fat, prepd. by dispersing gluten in acidic or alkaline water, adding oil and fat to the dispersion, emulsifying the mixt. and spray-drying the emulsion, in meat material. It is possible to increase oil and fat content in the microcapsular oil and fat up to 95% and it is usually combined in amt. above 0.5% pref. above 1% in pasty meat foods.

In preparing pasty meat foods (e.g. sausage, fish sausage, marine pasty food, etc.) animal and vegetable oil and fat is combined to improve the texture and glossiness of the prod. Animal fat of high m.pt. (e.g. tallow, lard, etc.) has been mainly used, but it has had to be combined in meat material at low temp. in order to avoid heat-denaturation of the protein in meat material and the uniform emulsification of the fat has been very difficult. Wheat gluten shows good holding properties for oil and fat and the microcapsular powdery fat obtd. by coating oil and fat with water insoluble gluten, is suitable for combining in meat material. Microcapsular powdery oil and fat can be prepd. from liq. oil and a pasty meat food contg. oil and fat having opt. fatty acid compsn. is prepd. (3pp)

NIPK D12 33113 X/18 = J8 1034-253
 Colouring salt-processed meat - using dihydroxyacetone, nitrite, nitrate and opt ascorbic acid

NIPPON KAYAKU KK 06.09.74-JP-101877
 (08.08.81) *J51032-758 A231-01/27 + A23b-04/02

06.09.74 as 101877 (WB)
 To fresh meat are added, in salting or before salting, dihydroxyacetone and (a) nitrate (e.g., sodium nitrate, potassium nitrate) and nitrite (e.g., sodium nitrite, potassium nitrite) or (b) nitrite, and ascorbic acid. After salting, heat processing is carried out. The pref. amts. added are nitrate 0.01-0.5%, pref. 0.05-0.2%; nitrite 0.001-0.05%, pref. 0.005-0.02%; dihydroxyacetone 0.01-0.3%, pref. 0.03-0.2%; ascorbic acid 0-0.3%; pref. 0-0.2%.

Even with reduced amt. of nitrate, nitrite, more colouration can be effected than by conventional process. About same amt. of them gives satisfactory colouration, and vivid red colour can be maintained for long duration, which is not possible with conventional process. (J51032758) (4pp)

NIPK D12 37019 X/20 = J8 1034-268
 Improving the taste and smell of sea-foods - by immersing them in aq. dihydroxyacetone

NIPPON KAYAKU KK 27.09.74-JP-110496
 (08.08.81) *J51038-457 A231-01/32

27.09.80 as 110496 (DJ)
 The smell and taste of sea foods can be improved without deterioration of colour, appearance, etc., by simply immersing them in an aq. dihydroxyacetone soln., and washing them.

Suitable sea-foods are jelly fish, sea urchins, shrimps, small fish, spawns, shell fish, seaweeds, etc. The concn. of aq. dihydroxyacetone soln. is 1-10 w/w%. Immersing time depends upon the kind of sea-food but is generally several hrs. (J51038457) (3pp)

SANY D12 38932 X/21 = J8 1034-269
 Preventing discolouration of canned shell fish - by pretreating with aq. soln. contg. lipase, a citrate, a phosphate and a fatty acid ester

SANKYO KK 03.10.74-JP-114103
 (D16) (08.08.81) *J51041-465 A23b-04 A231-01/33

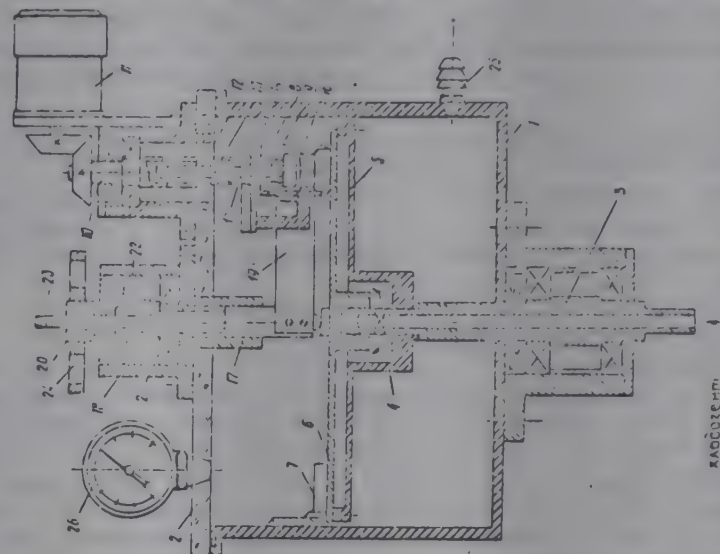
03.10.74 as 114103 (DJ)
 Blueing and browning of canned crustaceans and shell fish is prevented by pretreating with aq. mixed soln. composed of (1) lipase (factor of lipase; 1-10.0 5/1m). (2) citrate such as sodium citrate, etc. (concn. 0.1-1%) (3) phosphate such as calcium phosphate etc. (concn. 0.05-0.5%) and (4) fatty acid ester such as sucrose fatty acid ester, sorbitan fatty acid ester, glycerin fatty acid ester etc. (concn. 0.001-0.1%) Flesh of crustaceans and shell fish 0.5-1 kg are immersed in the treating liq. 1 litre for 10-30 mins.

After several years' preservation, flesh of crustaceans and shell fish in cans is not blued or browned. (J51041465) (2pp)

MOOMD ★ D12 65560 D/36 ★ SU-787-988
 Meat sliding friction determ. - by mounting sample in magazine, bringing it against rotating disc, and determining the force on strain gauges

MOSCOW MEAT DAIRY INST 09.02.79-SU-727492
 S03 (15.12.80) G01n-19/02 G01n-33/12

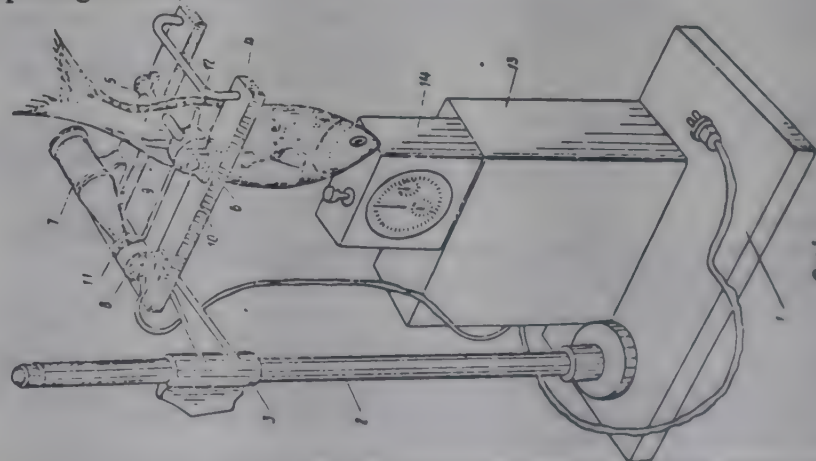
Device for determining the force of sliding friction of products of animal origin as they move through the working parts of machines and equipment, e.g. meat, has body (1), electric motor (11), shaft (3) and disc (6) equipped with a cooling system, jacket (5), scraper (7), plus a magazine (8) for the sample. The latter is fitted with a loading attachment and two strain gauges (15). Measurement accuracy is increased by providing an attachment to control the transfer movement of the magazine relative to the disc, e.g. the shaft (17) mounted in the support (18), with rods (21,22), screw (20) on scale (23), turned by wheel (24). The motor turns the loading attachment, the latter having the piston (9) linked to the shaft by a clutch (13), with additional rod and screw (12,14). Bul. 46/15.12.80. (3pp Dwg. No.1)



PACI= ★ D12 65562 D/36 ★ SU-787-990
 Device for determining moment of inertia of suspended fish - by mounting it on spindle connected to plate which cuts beam of light measuring the oscillations

PACIFIC OCEAN FISH 19.02.79-SU-745808
 S03 (15.12.80) G04n-33/12

19.02.79 as 745808 (29WD)
 Device for determining the moment of inertia of fish, during the development of fish-processing equipment, has base (1), stand (2), arm (3) with frame for suspending the fish, time indicator (14), and sensor to determine the vibration of the fish, comprising a light source (7) and a photoelectric cell (8). The accuracy of the determination is increased, and the labour required to carry out the experiment is reduced, by providing the oscillation sensor additionally with an interrupter for the light beam, comprising a cantilever bracket (9), one end held by the screw (10), and the other supporting a plate (11), which breaks the beam. The photoelectric cell is connected to an amplifier and summator for the oscillations, and to the time indicator (14). Bul. 46/15.12.80. (4pp Dwg. No. 1)



KLAI= ★ D12 65587 D/36 ★ SU-789-064
 Treatment of fish caught in seine - using electric pulsating current to release ova and sperm mixt. in sea water for fertilisation to replenish stock

KLAIPEDA IND FISH 02.03.78-SU-587123
 P14 (30.12.80) A01k-61

02.03.78 as 587123 (70VE)
 Fish caught in sea, when still in the seine, is subjected to action of a pulsating electric current. This method is much more productive than the manual removal of the roe and milt for subsequent fertilisation by mixing. The fish are hauled onto the deck, whilst the released fish ova and sperm all mixed in sea for fertilisation and left in water to replenish the fish stock.

The effectiveness of this method is enhanced by using electric current having the pulse frequency 5-50Hz. The field strength is

0.5-8 V/cm; the pulse duration is 0.8-3.2 msec. the treatment lasts 0.2-20 min. Bul.47/23.12.80. (2pp)

LAKE = ★ D12 65588 D/36 ★ SU-789-088
Cultivation of krill species - in periodically replenished aq. medium contg. microorganisms, useful for feeding fish
LAKE RIVER FISHING 07.08.78-SU-654237
P14 (30.12.80) A01k-61
07.08.78 as 654237 (70VE)

Krill (*Moina macrocopa*) is bred in a nutrient medium which is periodically partly withdrawn and then replenished. The krill population is regulated by carrying out the dilution with pure water in a ratio of 0.02-0.2 w.r.t. the total vol.

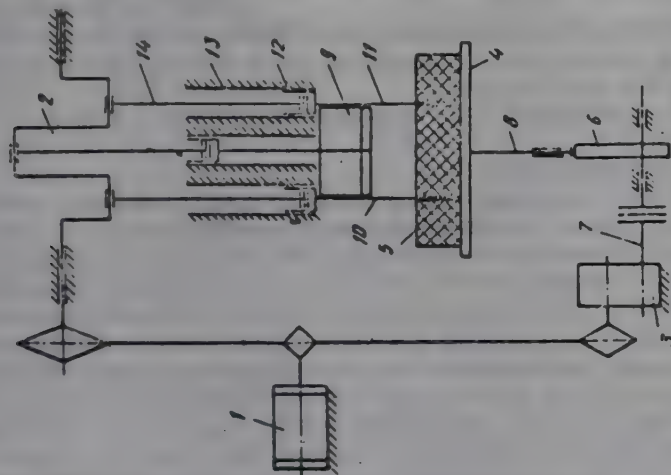
In the nutrient medium microorganisms are also cultivated which are consumed by the krill. The withdrawn part of the culture contains a part of the krill whereby the ratio of the krill population to the concn. of the microorganism is maintained at the optimal level. This method is esp. suitable for the breeding of the krill species *Moina* for feeding fish. Bul.47/23.12.80. (3pp)

MOMD ★ D12 65593 D/36 ★ SU-789-085
Cutter for frozen blocks of meat - has upwardly-moving table, and downwardly-moving centre and side knives to cut the block into pieces by simultaneous movement

MOSCOW MEAT DAIRY INST 21.03.79-SU-741346
P62 (23.12.80) A22c-17 B26d-01/08

21.03.79 as 741346 (29WD)

Device for cutting edible frozen blocks, e.g. of meat, has table (4) on to which the blocks are fed, with a knife (9), positioned coaxially, all fitted so that the parts are free to move together in opposite directions. Productivity is increased, by fitting two extra knives (10,11) having T-shaped cross-section. The knife which is coaxial to the table is cross-shaped in section. All the knives are kinematically connected together by a multi-component shaft which alternates their action. Bul.47/23.12.80.



(3pp Dwg.No. 1)

CORO/ D12 14220 B/08 = US 4283-812
Machine to form, cut and wrap hamburgers - has electromagnetic cutting mechanism actuated by a memory circuit

COROMINAS G P 31.08.78-ES-238001
+ P62 (18.08.81) *BE-871-190 A22c-07

29.08.79 as 070911 (1376BZ)

Meat patties are mfd. on a machine including an inclined guideway onto the top of which ground meat is fed, and two sheet supply rolls for covering the meat on both surfaces. The meat layer slides down the slideway under gravity. A sensor near the bottom of the slideway detects the front edge of the meat layer and controls a knife for cutting the layer into patties. (9pp)

STOR- ★ D12 65785 D/36 ★ US 4283-813
Inspecting shackled eviscerated poultry carcasses - by tilting horizontally and expanding cavity by cam-operated fingers

STORK GAMCO 03.12.79-US-099640
(18.08.81) A22c-21

03.12.79 as 099640 (295RH)

Eviscerated poultry carcasses are shakled by their legs to a conveyor which carries them inverted to an inspection station. Initially the back of the carcass faces the inspector but a cam-operated finger is inserted into the body cavity to engaged the breast bone to tilt the carcass upwards until it lies horizontally with the tail adjacent the inspector. A second finger also enters to body cavity to engaged the back of the carcass near the tail to open the body cavity.

The inspector can examine the air sac, sex organ and kidney areas of the body while it is engaged by the cam-operated fingers. The inspector need not touch the carcass during the inspection and thus cross-contamination is reduced. (12pp)

NISU- ★ D12 65952 D/36 ★ US 4284-653
Treating fish infected with sporozoa - by addn. of thiol protease prevents jellying

NIPPON SUISAN KK 18.12.79-JP-164307 (13.01.79-JP-003165)
(18.08.81) A22c-25 A23l-01/32 A23l-03/36

09.01.80 as 111007 (+ 13.1.79-JP-003166) (955NS)

Fish meat contaminated with sporozoa is treated with at least one food compatible edible additive which inhibits thiol protease.

Suitable thiol protease inhibitors (TPI) include cultures and culture extracts of *Actinomycetae* and *Aspergillus*, extract of raw potato, antipain, chymostatin, leupeptin, egg white pseudoglobulin, sodium bisulphite, hydrogen peroxide, ammonium persulphate, sodium chlorite, chlorine dioxide, sodium nitrite, calcium hypochlorite, calcium oxide etc.

Treatment prevents the jellying and liquifaction of fish meat contaminated with sporozoa, which otherwise begins as soon as the host fish dies, and renders the fish commercially useless. Sporozoa infected fish is quite safe to eat. (11pp)

D12

See Also

D13 GB2069813

D13: OTHER FOODSTUFFS

SCHM/ ★ D13 D/36 ★ AT 7800-369
Dried stone- or pips-contg. fruit based food prod. mfr.
SCHMITZBERGER J 19.01.78-AT-000369
(15.08.81) A23g-03

SAEL/ ★ D13 64206 D/36 ★ BE-888-494
Food compsns. based on minced meat opt. with cheese - contg. a cpd. for absorbing juices, esp. hydrated wheat semolina
SAELEN B 21.04.80-FR-009465
(17.08.81) A23l

21.04.81 as 888494 (597DJ)

The compsn. based on raw or cooked minced animal meat contains a cpd. for absorbing liquid prods, fats and/or meat juices. In another embodiment the compsn. contains the minced meat and a soft paste type cheese, which can soften in cooking, and is also absorbed by the cpd.

A hydrated wheat semolina used as absorbing agent is hydrated by plunging the semolina into boiling water, heating the water back to boiling and then leaving the semolina to absorb water.

Used in rissoles, etc. the absorbing cpd. both reduces the cost and improves the taste by absorbing liquids which could be lost in cooking. (6pp)

AJIN ★ D13 64221 D/36 ★ CA 1104-409
Canned coffee or tea prodn. - by canning sugar soln. with ground coffee or tea leaves in porous bag
AJINOMOTO GEN FOODS 28.04.77-JP-049458
(07.07.81) A23f-01 A23f-03

24.04.78 as 301791 (955)

Prepn. comprises placing ground roast coffee, or tea leaves in a porous bag having 1.3-1.5 times the volume of the coffee or tea, sealing the bag and placing it in a can with aqueous sugar soln. The can. is sealed, heated with steam at 1.5-1.7 kg per sq.cm. for 15-30 mins., then rapidly chilled.

The method gives better extrn. than use of whole beans without impairment of flavour. (6pp)

FARF ★ D13 64220 D/36 ★ DD-148-715
Anticaking additive for mineral mixts. for animal nutrition - which is magnesium carbonate produced from magnesite processing filter slurry by pressing, heating and comminution
VEB CHEMIEK BITTERF 18.01.80-DD-218523
C03 (10.06.81) A23k-01/17

18.01.80 as 218523 (280KB)
The storage properties of mineral mixt for animal nutrition are improved by stabilisation of the free-flowing properties of the mixt by complete or partial substitution of the MgO or caustified magnesite by a special magnesium carbonate produced from the

filter slurry from magnesite processing by pressing, heating and comminution.

The magnesium carbonate which acts as anticaking agent itself has nutrient properties and is readily absorbed after oral ingestion. The special magnesium carbonate may be used as the sole magnesium-contg component of the mineral mixt, or may replace part of a usual magnesium-contg component. The special magnesium carbonate pref contains 70-90% MgCO₃, together with MgO, CaCO₃ and Fe₂O₃. (9pp)

FARH D13 18378 B/10 = DS 2860-715
Simultaneous prepn. of fatty acid nitrile(s) and glycerol - by catalytically contacting glyceride(s), esp. natural fats and oils, with ammonia

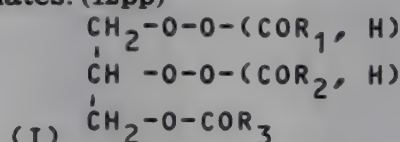
HOECHST AG 25.03.78-DE-813204 (20.08.77-DE-737607)
E17 (D21 E16) (27.08.81) *EP-----916 C07c-31/22 C07c-120/08 C07c-121/14

16.08.78 as 860715 Based on EPG000916 (068WB)

Mono-, di- and tri-glycerides of formula (I) (where R₁, R₂ and R₃ each are 3-23C (hydroxy)aliphatic hydrocarbon gps.) are reacted with ammonia to obtain fatty acid nitriles R₁(R₂,R₃)-CN and glycerol. The liq. glyceride or glyceride mixt. is put in intimate contact with at least 200 litres of gaseous ammonia, opt. together with an inert gas per kg. glyceride per hour at 220-330 deg.C.

A catalyst is present which is a salt of a carboxylic or sulphonic acid and lead, zinc, cadmium, tin, titanium, zirconium, chromium, antimony, manganese, iron, nickel or cobalt. The resulting reaction mixt. is discharged from the reaction zone and subjected to a phase sepn. into a fatty acid nitrile phase and a glycerol/water phase.

The glycerol formed is removed rapidly from the reaction zone. The reaction mixt. may be fractionated before phase sepn. and any fatty acids or acid amides present recycled. The nitriles and glycerol are obtd. in high yield and of good purity and are useful chemical intermediates. (12pp)



FOSS- D13 31967 B/17 = EP G001-513
Determining nitrogen in a sample - according to the Kjeldahl principle using an antimonate catalyst

FOSS N ELEC A/S 07.10.77-DK-004452

E13 J04 S03 (26.08.81) *EP---1-513 B01j-23/18 G01n-31/10

06.10.78 as 300467 (922RH) (E) FR2220061 GB-896082 GB-904602 NL-281143 US3964869 E(BE CH DE FR GB LU NL SE)

In a process for determining the nitrogen content of a sample by the Kjeldahl method, the digestion-aiding catalyst is an antimonate or a mixed oxide of a metal oxide and Sb₂O₅ and/or Sb₂O₄. The sample is digested with some sulphuric acid in the presence of the catalyst (which is pref. potassium antimonate hemihydrate, K(Sb(OH)₆).1/2H₂O) and ammonia distilled off from the ammonium sulphate formed into a measured quantity of standard sulphuric acid. The present catalyst is as efficient as mercuric oxide but less toxic. (17pp)

FIRM D13 09534 C/06 = EP G007-486
3-Methyl tri:cyclo(6.2.1.0)-undecane derivs. - including 9,10-unsatd. cpd. and ester(s) are perfumes and flavouring agents used in soaps, food, drinks, pharmaceuticals, tobacco etc.

FIRMENICH SA 05.07.78-CH-007320

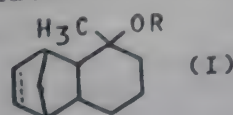
B05 E15 P15 (B07 D21 D23) (26.08.81) *EP---7-486 A231-01/22 B07 D21 D23 (26.08.81) *EP---7-486 A231-01/22

A231-02/26 A24b-15/30 A61k-07/46 C07c-35/37 C07c-69/06

04.07.79 as 102278 (922HM) (F) DE2362877 DE2737525 FR1414969

FR2236828 E(CH DE FR GB IT NL SE)

Cpds. of formula (I): (where the dotted line indicates an optional double bond and R is H or an aryl gp. derived from a 1-6C (un)satd. carboxylic acid) and their use as organoleptics and aromatisers for pharmaceuticals and tobacco and in perfumes are claimed. They may be prepared from the known cpd. tricyclo-(6,2,1,0-2,7)-undec-9-en-3-one (viz DT2737525) and have woody (pine) flavours and aromas. (10pp)



64470 D/36 *FR 2473-840

BURT-★ D13
Demoulding milk prods. esp. soft paste cheeses - by gripping inverted mould block in vibrating frame to release clean undamaged prods.

BURTON-CORBLIN 22.01.80-FR-001281

P13 (24.07.81) A01j-25/13

22.01.80 as 001281 (448AS)

Process for demoulding milk prods. partic. soft paste cheeses

from a multi-cavity mould block is described. The block is subjected to vibrations in a direction which ensures that the prods. slide gently out of the mould cavities.

The machine pref. comprises a vibratory frame which has jaws to grip the mould block so that the vibrations are transmitted from the frame to the mould block.

The frame is pref. vibrated vertically by a pair of out-of-balance electric motors rotating in opposite directions. The frame is pref. suspended in a rigid, fixed structure from resilient mountings or shock absorbers.

By an elevator table from an infeed conveyor to a height at which the mould block can be gripped by the frame jaws.

Demoulding, milk prods., partic. soft paste cheeses, from multi-cavity mould blocks. The prods. are extracted without handling, contacting, suction or blowing. Consequently the demoulded prods. are presented without damage and with greatly reduced losses. (10pp)

TAVE/★ D13 64478 D/36 *FR 2473-849
Preserving truffles by deep freezing - after cleaning wrapping in insulating material and then surrounding with earth before deep freezing

TAVERNIER A 23.01.80-FR-001394

(24.07.81) A23b-07/04

23.01.80 as 800139 (597DH)

The truffle is cleaned washing and brushing, then wrapped in a sheet of insulating material. The assembly is then surrounded by a layer of earth and is then deep frozen.

Pref. sheet material is aluminium. The earth is pref. wet in the form of a paste and pref. earth from the place where the truffle has grown. The earth layer is pref. 2-4mm thiol. Freezing is pref. first at -50 deg.C. for a few minutes, esp. 5, and then at -80 to -30 deg.C. for a number of hours esp. at -18 deg.C. for 72 hrs.

The process enables preserving the freshness and taste of the truffles without loss of weight. (6pp)

HOUS-★ D13 64539 D/36 *FR 2474-506
Prodn. of porous saccharide granules - for use as carriers for oils, etc., in food mixes

HOUSE FOOD IND KK 04.09.80-JP-121782 (28.01.80-JP-007728)

(31.07.81) A21d-02/18 A21d-13/08 A231-01/40 C07h-03

27.01.81 as 001441 (+ 25.6.80, 4.9.80-JP-085187, 121781) (367RH)

Prodn. of porous saccharide granules is carried out by heating a saccharide (I) which is capable of being crystallised by heating or desiccation. More specifically, (I) contg. 1-20 (esp. 1-16) wt.% water is heated at a temp. sufficient to crystallise at least part of (I) and form porous agglomerates.

(I) is pref. lactose and/or glucose. The granules are pref. produced by heating a mixt. of (I) and 1-20 wt.% water at 100-140 deg.C. The mixt. can also contain phosphates, gums, skim-milk powder and/or Na caseinate.

The granules can be impregnated with edible oils to obtain products useful as components of soup or cake mixes. The granules have good storage stability and high crush strength. They can also be used as carriers for other liqs., e.g. alcohols, esters, phenols, ketones, terpenes or colorants, provided that these do not dissolve (I). (19pp)

HOWA/★ D13 64560 D/36 *GB 1596-870
Dry compsns. for making savoury beverages - contg. protein material and sub-effervescent amt. of gas former

HOWARD AN 31.05.78-GB-026066

(03.09.81) A231-02/38

31.05.78 as 026066 (367AS)

Dry compsns. in powder or tablet form for dissolution in aq. ingestible liqs. to produce savoury beverages comprises (a) 5-90wt.% of dry proteinaceous flavouring material, (b) a gas former in an amt. which is sufficient to facilitate disintegration, dispersion and dissolution of component (a) in an aq. liq. but is insufficient to cause effervescence, and opt. (c) non-proteinaceous non-effervescent ingredients.

The compsns. dissolve rapidly without effervescence in hot or cold water and can have a very low calorie content and/or a low salt content. (11pp)

HYDR- D13 05889 C/04 = GB 1597-048
Mfr. of pet food partic. of meat based raw material - by pressing out fluidisable phase to separate inedible residue of bone etc.

SOC CIV HYDROMER 12.05.77-FR-01491

C03 (03.09.81) *FR2421-560 + A22c-18

10.05.78 as 018781 (931AT)

A foodstuff is prepd. by phase sepn. through mechanical frituration or mastication and simultaneous crushing of aliment raw prods. in a closed chamber, at several hundred bars compression.

The chamber has openings through which soft components are extruded due to the pressure, in the form of a mixt. as the main

component of the prod. The frituration, crushing and pressure are carried out by 1 or more punch advancing in the mass contained in the chamber.

The lateral longitudinal face of the punch is formed with grooves allowing the soft prods. to escape through calibrated passages opening in either the chamber or punch wall, or between the punch and the chamber wall. (3pp)

MIMB ★ D13 64565 D/36 ★ GB 1597-088
Prod. of cultured butter from sweet butter - by adding diacetyl, lactic acid and microorganisms

MILK MARKETING BOARD 30.05.78-GB-023745

(03.09.81) A23c-15/12

30.05.78 as 023745 (367AS)

Prod. of cultured butter is carried out by inoculating sweet butter with (i) diacetyl and at least one other aroma cpd., (ii) lactic acid, and (iii) a viable culture of at least one lactic-acid-producing microorganism and at least one diacetyl producing microorganism. Components (i) and (ii) must be added separately from (iii) and must be free of viable microorganisms.

The process allows higher salt contents to be obtd. than the known Dutch process. Salt can be included in component (i) and/or (ii), pref. in an amt. such that the cultured butter contains up to 2wt.% salt. Component (i) is pref. produced by steam distn. of cultured skim-milk. (4pp)

UNBI- ★ D13 64585 D/36 ★ GB 2069-812
Treatment of rice by initial softening - with subsequent pressure application to produce cracks through which flavouring is introduced

UTD BISCUITS UK LTD 27.01.81-GB-002499 (14.02.80-GB-005086)

(03.09.81) A231-01/18

27.01.81 as 002499 (+ 28.3.80-GB-010619) (295BZ)

Rice is partly softened to prevent it from shattering under pressure. Pressure is subsequently applied to the rice to produce cracks. An additive is then applied which impregnates the rice through the cracks. The resultant prod. is heated sufficiently rapidly that puffing occurs.

Pref. the heating produces complete gelatinisation of the prod. The heating may be effected using microwave radiation, deep fat frying, salt bed drying or forced convection heating.

The process can be used to produce sweet or savoury food prods., e.g. a puffed snack which can be formed into rice balls, or a confectionary bar prod. The process gives the rice an open structure and if desired it is virtually instantly rehydratable. It can thus be used in snack prods. rehydratable merely by the addn. of boiling water. (4pp)

CERE- ★ D13 64586 D/36 ★ GB 2069-813
Prod. of foodstuffs, e.g. meat extenders, from comminuted seeds - by softening, compression and impregnation

CEREAL SERVICES LTD 03.02.81-GB-003243 (08.02.80-GB-004326)

(D12) (03.09.81) A231-01/36

03.02.81 as 003243 (367BZ)

Prod. of foodstuffs from comminuted edible seeds is carried out by (a) partially softening the comminuted seeds to prevent shattering under pressure, (b) applying pressure to increase the surface area of the comminuted seeds, and (c) impregnating with an additive. Also claimed is a meat extender comprising a comminuted edible seed prod. in which an additive is incorporated by compression followed by impregnation.

The starting material pref. comprises cut or kibbled cereal (wheat, rice or barley) grains, each grain being subdivided into 2-8 (pref. 3-7, esp. 5 or 6) pieces. In step (b), the softened material is pref. compressed into flakes. (3pp)

MONO- ★ D13 64695 D/36 ★ GB 2070-202
Discharge valve for aerated prod. esp. chocolate - with plunger closing aperture in valve plate having adjustable area

MONO OAKES LTD 04.02.81-GB-003380 (25.02.80-GB-006248)

Q66 (03.09.81) F16k-03/02

04.02.81 as 003380 (295KB)

An aerated prod. is discharged through a valve plate having an aperture which converges downstream. A second valve plate carries a similar aperture but with a divergent taper. The second plate can be slid across the first plate to alter the effective discharge area. A plunger can be moved axially on the upstream side of the valve to enter the aperture of the first valve plate and thereby stop the prod. flow irrespective of the position of the second valve plate. Pref. a piston and sleeve assembly is associated with the plunger to deliver a metered volume of the prod. the the aperture.

The valve discharges aerated chocolate through a sharp-edged aperture to produce a rapid expansion of the prod. The operation of the plunger does not affect the second valve plate and thus the original valve opening is resumed immediately the plunger is

moved away from the shut-off position. (11pp)

HOUS- ★ D13 64698 D/36 ★ GB 2070-217
Prod. of dry fruit chips as snack food - by three-stage drying of fresh fruit chips

HOUSE FOOD IND CO 05.02.80-JP-011997

Q76 (03.09.81) F26b-05/04 F26b-23/08

28.01.81 as 002592 (367BZ)

Prod. of ready-to-eat dry fruit chips from fresh fruit chips with an adjusted water-soluble sugar content of 6-25 wt.% is carried out by (a) freeze drying to a moisture content of 15-60 wt.%, (b) microwave drying under vacuum to further reduce the moisture content to 10-40 wt.%, and (c) vacuum drying to a moisture content below 5 wt.%.

Suitable fruits include apple, peach, melon, apricot, persimmon and papaya. The fresh fruit chips are pref. impregnated with a syrup contg. 5-30% sugar and 0.1-0.5% antioxidant. Suitable sugars are glucose, arabinose, xylose, galactose, fructose, sucrose, lactose, maltose, cellobiose, raffinose, maltotriose, stachyose, dextrin, sorbitol and mannitol.

Step (a) is pref. effected at 0.1 torr and a temp. rising to 30 deg.C; (b) at 15-30 torr and a temp. rising to 30 deg.C, with a microwave output of 4.5kW; and (c) at 10-30 torr and a temp. rising to 50 deg.C.

The products are suitable for eating as snack foods- having a pleasant bite and retaining the inherent flavour of the fruit. (9pp)

SHIM- ★ D13 64848 D/36 ★ J5 6088-750
Treating Japanese radish using hot acetic acid - a calcium salt, aq. phosphoric acid and pressure sterilisation stage, to enable them to be stored for long periods

SHIMIDZU SHOKUHN 21.12.79-JP-165670

(18.07.81) A23b-07/10

21.12.79 as 165670 (5NS)

The method comprises (a) immersing washed Japanese radish in hot acetic acid soln., (b) cutting it in pieces; (c) immersing the pieces in a soln. contg. Ca salt, e.g. Ca lactate, (d) blanching them by heating them with the soln., (e) packaging them in air-tight vessels, (f) pouring aq. phosphoric acid soln. into the vessels to make the pH 4.3-5.2, (g) tightly closing and (h) heating them under pressure for sterilisation.

(a) sterilises microbes and hydrolyses insoluble propectin in the epidermis of the radish partly to soluble pectin. The Japanese radish is softened and penetration of the calcium soln. into the radish is promoted. In (c) soluble pectic acid is reacted with calcium to form insoluble calcium pectate and the tissues of the radish are strengthened. Japanese radish is an important vegetable in Japanese dishes. Its harvesting period is restricted. The plain boiled Japanese radish is preserved, delicious and hardly physically damaged during cooking, and can be stably supplied throughout the year. (3pp)

FUKU- ★ D13 64849 D/36 ★ J5 6088-752
Ethylene adsorbent for keeping vegetables and fruit fresh - obtd. by coating an adsorbent with an oxidising agent for ethylene

FUKUOKA SEISHI KK 19.12.79-JP-167145

(18.07.81) A23b-07/14

19.12.79 as 167145 (5KB)

Agent is prep.d. by coating the surface of adsorbent with the oxidising agent which is not transferred or left on vegetables and fruits and can oxidise the ripening-promoting hormone for vegetables and fruits e.g. ethylene and adsorb the oxidised prod.

When the agent and vegetables or fruits are packaged in corrugated paper box, ethylene gas is adsorbed almost completely within 5-10 minutes. As adsorbent active carbon, activated alumina, etc. can be used and as oxidising agent potassium bromate, other oxy-acid salt, aromatic peroxide, etc. can be used.

The agent has good chemical and physical adsorbing properties, and shows high adsorption of ethylene. It oxidises ethylene and adsorbed ethylene is not released. Its adsorbing capacity is not reduced even in the presence of carbon dioxide gas. (5pp)

SANY ★ D13 64850 D/36 ★ J5 6088-756
Dextranase contg. chewing gum prepn. - by adding sugar alcohol soln. to aq. dextranase soln. then kneading into chewing gum base

SANKYO KK(LOTT) 20.12.79-JP-166231

(D16 D21) (18.07.81) A23g-03/30

20.12.79 as 166231 (5BZ)

Prepn. comprises (a) adding aq. dextranase soln. in the soln. contg. at least one kind of sugar alcohol selected from sorbit, mannitol, maltitol and xylitol, (b) adding the obtd. soln. in the mixt. of chewing gum base and the additives of chewing gum use and (c) kneading the mixt.

Dextranase dissolves in water and it is mixed in the sugar

cohol soln. having sugar alcohol concn. 60-85% so that the dextranase concn. in the mixed soln. is 0.5-2.0%. The obtd. soln. is combined in the mixture of chewing gum base and the additives for chewing gum use so that 100-100000 units of dextranase is contained in 1 g. of obtd. chewing gum. It is assumed that dextranase is included in sugar alcohol during kneading of the mixture and the fall in dextranase activity can be prevented.

Dextran is the major component of the sordes on tooth and dextranase has been attracting attentions as the suppressing agent for the formation of sordes and thus the preventing agent for decaying of tooth. Thus the chewing gum contg. dextranase has been prepared, but the dextranase in it has lost 60% of its activity in 6 months. Using sugar alcohols can prevent the fall in the dextranase activity in chewing gum. (3pp)

ENO ★ D13 D/36 ★ J5 6088-763
Improvement of functionality of proteinaceous material
GENERAL FOODS CORP 16.10.79-US-085187
(18.07.81)

AJIN ★ D13 64851 D/36 ★ J5 6088-764
Fish food replacing expensive fish meal - contains solid obtd. by electro-dialysing liq. from aminoacid fermentation, concentrating the liq. and sepg. aminoacid from liq.

AJINOMOTO KK 18.12.79-JP-164208

C03 (D16) (18.07.81) A23k-01/18

18.12.79 as 164208 (5AT)

Feed for fish-raising contains a solid component obtd. by (1) pouring (a) fermented liq. from amino acid fermentation, (b) liq. obtd. by removing microbial body from (a) or (c) liq. obtd. by recovering amino acid crystals from (b), in dialysing chamber leaving anion exchange membrane at cathode side and cation exchange membrane at anode side, (2) electrodialysing, (3) recovering liq. remaining in the dialysing chamber, (4) conc. it and (5) if necessary, drying it and/or the solid component obtd. by (6) sepg. objective amino acid from liq. obtd. in (3), (7) conc. the mother liquor and (8) if necessary, drying it.

An example of the compsn. of the concentrate obtd. in (4) is water: 29.5%, total nitrogen: 5.9%, chlorine: 0.7%, soluble nitrogen-free substance: 26.2%, ash: 8.9%.

Prior art assorted feed contg. fish meal as protein source is not satisfactory in feeding effect and ingestion rate. Combining the solid component in the amino acid-fermented liq., from which ionic substances are removed, with conventional fish-raising feed, defects can be removed. The solid component can also be used as an economical substitute for fish meal. (6pp)

AJIN ★ D13 64852 D/36 ★ J5 6088-765
Food prepn. - using wine previously treated with strongly acidic ion exchange resin

AJINOMOTO KK 20.12.79-JP-165913

A97 (D16) (18.07.81) A23l-01

20.12.79 as 165913 (5HM)

Food with excellent flavour is produced using wine previously treated with strongly acidic ion exchange resin. White, red or rose wine can be used and an ion exchange resin having high crosslinking degree is pref. used. The wine is passed through a column contg. the ion exchange resin with SV 2-7 and if necessary the drop of pH of the wine by the ion exchanging is adjusted with alkali.

Wine is used widely in Western-type stewed dishes (e.g. beef stew, bouillabaisse, etc.) as essential seasoning. When cooked foods prepd. with wine are retort-treated (120-135 deg.C, FO = 2-30 min), the flavour and body of the foods imparted by wine is lost and sometimes disagreeable flavour is imparted to the foods. The problem can be resolved and a retort food with excellent flavour obtd. by treating wine with strongly acidic cation exchange resin prior to use for cooking. (3pp)

SAN- ★ D13 64854 D/36 ★ J5 6088-772
Prepn. of bean milk curd - using magnesium sulphate and calcium chloride as coagulant, by adding water to their mixt. and heating

OSAKA NIGARI SHOKO 19.12.79-JP-166099

E33 (18.07.81) A23l-01/20

19.12.79 as 166099 (5BZ)

Method for preparing the coagulant of bean milk by mixing magnesium sulphate, calcium chloride and water, heating the mixt. and drying it. The double decomposition of magnesium sulphate and calcium chloride occurs at 50-100 deg.C for 10-30 minutes using 100 pt. wt. of the equimolar mixt. of magnesium sulphate and calcium chloride at the presence of 50 pt. wt. of water.

By using calcium sulphate as coagulant the bean curd has excellent in texture and water-holding property can be obtd. by using magnesium chloride as coagulant a delicious bean curd can be obtd. Magnesium chloride and calcium sulphate together give

an excellent bean curd, but their mixture is likely absorb water due to deliquescent property of magnesium chloride. However when the mixture of magnesium sulphate and calcium chloride is heated at the presence of water, the metathetical salt consisting of calcium sulphate, magnesium sulphate, calcium chloride and magnesium chloride can be obtd. The powder obtd. by drying the metathetical salt shows little deliquescent property and can be used as the coagulant for bean milk showing the advantages of both of magnesium chloride and calcium sulphate. (4pp)

POKK ★ D13 65047 D/36 ★ J5 6089-832
Oil in water type emulsion prodn. - using nonionic surfactant, used in cosmetics, medicines, foods or paint

POLA KASEI KOGYO 24.12.79-JP-167823

B07 J02 (D21) (21.07.81) B01j-13

24.12.79 as 167823 (51NS)

The method comprises (1) dissolving a nonionic type surfactant in water, or (2) dissolving the surfactant in an oily phase component to obtain an oily type continuous phase. The oily phase component is added to the aq. continuous phase to obtain a liquid crystal phase or vice versa. At least one of water or an aq. solvent is added to the liquid crystal phase to obtain a gel emulsion. Water is then added to the emulsion to produce an oil in water type emulsion. (6pp)

MORI- ★ D13 65048 D/36 ★ J5 6089-833
Mfr. of gelatin capsule contg. hydrophilic nucleus material - by injecting with hydrophilic liq. a soln. of gelatin, sugar alcohol or grape sugar into flow of cooled vegetable oil

MORISHITA JINTAN KK 24.12.79-JP-166806

J04 (21.07.81) B01j-13/02

24.12.79 as 166806 (51BZ)

The capsule is obtd. by separately ejecting a soln. contg. a hydrophilic liq. as a nucleus substance and a soln. contg. gelatin and sugar alcohol or grape sugar as a capsule cover substance through a double tube type orifice into a flow of cooled oil, wherein tannic acid is added to the capsule cover substance if the nucleus substance is not acidic or a cover forming agent is added to the capsule cover substance in case that the nucleus substance is acidic.

15 g. of gelatin, 60 g. of grape sugar, 1 g. of tannic acid, and 60 g. of water were mixed to obtain a sol soln. used as a capsule cover substance. 100 g. of liquid gluten, 100 g. of coffee powder, and 100 g. of water were mixed to obtain a mixed soln. The sol soln. and the mixed soln. were separately ejected through a double tube type orifice into a flow of cooled vegetable oil to produce particle coffee capsules of 4 mm. size. (3pp)

MITN D13 22672 A/12 = J8 1033-980
Oxygen absorbent used for treating atmos contg. steam - produced by covering metal powder with metal halide

MITSUBISHI GAS CHEM IND 15.07.76-JP-084169

E36 J01 (07.08.81) *J53014-185 A23l-03 + B01j-20/02

15.07.76 as 084169 (58BZ)

An oxygen absorbent is produced by covering metal powder with metal halide. The covered amt. of metal halide is 0.001-5 pt. w.r.t. 100 pts. metal powder. Water content 1 wt.% of the whole. The metal halide is covered in soln. which is dried.

The oxygen is used for deoxygenation from the atmos. contg. steam, pref. of relative humidity 50%. It is in systems having water-included substances, e.g. foods and in systems coexisting with water-generated substances. The absorbent can be made into tablets by means of tablet machine etc. The tablets have extremely high hardness and have same oxygen-absorbed ability as the powder. (J53014185) (6pp)

MITN D13 32443 B/17 = J8 1034-147
Oxygen adsorbent used in food containers etc. - comprises iron powder coated with metal halide and opt. binder and/or alkaline substance

MITSUBISHI GAS CHEM IND 26.08.77-JP-102353

E36 G04 (08.08.81) *J54035-883 A23l-03 + B01j-20/02

26.08.77 as 102353 (117HM)

An oxygen absorbent is prepd by coating 100 pts wt of iron powder with 5-10 pts wt of a metal halide, together with a binder and/or an alkaline substance if necessary, by using a metal halide soln contg binder and/or alkaline substance, and then the coated iron powder is dried until the moisture content becomes upto 1 wt % Metal halide is e.g. alkali(ne earth) metal halide.

The absorbent has a great oxygen absorption capability without defects, e.g. becoming wet on standing, contamination of foods, generation of hydrogen during storage, absorption of atmospheric oxygen during storage, etc. and thus exhibits its great power within a confined container for foods, etc. (J54035883) (4pp)

NEST D13 54471 T/34 = J8 1034-254
 Acidified powdered milk - for yoghurt combines acidified and non-acidified milk fractions with coated acid particles
 SOC PROD NESTLE SA 10.02.71-CH-001944
 (08.08.81) *BE-778-317 A23c-09/12
 09.02.72 as 014308 (DH)
 The milk product is prepared by combining a powdered milk fraction acidified to pH 4.2-4.4 with a nonacidified powdered milk fraction to obtain pH at least 5.2 when reconstituted with 5-10 times its wt. of water, and incorporating an acid cpd. of controlled solubility.
 The powder is prepd. by simultaneously drying (at 70 deg.C.) 70-80% non-acidified milk of 35-40% solids content and 20-30% powdered milk acidified with yoghurt cultures of 21% solids content at pH 4.2-4.4.
 The acid cpd. is coated or incorporated in an edible solid fat. (J47019061) (3pp)

MNKN ★ D13 65325 D/36 ★ J8 1034-255
 Powdered fermented milk prepn. - using lactobacillus spp. then leuconostoc spp. to ferment milk the dehydrating (J5 21.1.75)
 MINAMI NIPPON RAKUNO KYO 19.05.73-JP-056089
 (D16) (08.08.81) A23c-09/16
 19.05.73 as 056089 (22BZ)
 Starting milk is fermented with the use of Lactobacillus microorganism until pH 5.8 to 6.2, followed by sterilization and then fermented with the use of Leuconostoc microorganism, followed by dehydrating and drying. (J50005558) (4pp)

LOOC/ D13 47851 V/26 = J8 1034-256
 Soybean beverage - obtd. by cooking, flavouring and homogenising under pressure
 LOOCS 28.07.72-US-276222
 (08.08.81) *J49042-853 A23l-01/20 + A23c-11/10
 21.10.72 as 105763 (AT)
 The process comprises (a) immersing in water enzymatically active lipid-rich soybean powder (I) contg. about 42% protein 21% fat, 5% ash, 3% fibre, 24% added carbohydrate and 5% water, and (b) cooking, flavouring, and homogenising under pressure to reduce soybean particle size to not more than 10 microns.
 Soybean is washed, pulverised and pressed in a roller mill, and the outer shell is removed by scouring. The material is flaked in a hammer mill, finely pulverised in an Alfin (RTM) mill and graded to give (I) of particle size 270-300 mesh.
 The beverage is nutritious, palatable and can be bottled. It can be prepd. in only 6 stages. Growth inhibiting substances are removed in cooking and sterilisation. (J49042853) (5pp)

NISW D13 17850 D/11 = J8 1034-261
 Soy bean protein extn. - by washing defatted beans in alcohol, evaporating under reduced pressure, treating with hot water and spray-drying liq. extract
 NISSHIN OIL MILLS KK 15.06.79-JP-074741
 (08.08.81) *J56001-854 A23j-01/14
 15.06.79 as 074741 (5NS)
 The method comprises (1) washing defatted soy bean with hydrous alcohol at below 30 deg.C. (2) evaporating alcohol from the washed defatted soy bean at below 30 deg.C. under reduced pressure, (3) extracting the treated defatted soy bean with hot water or ammonia water at 60-90 deg.C. and (4) spray-drying the liq. extract. Aq. ammonia is used so that the mixt. of pretreated defatted soy bean and ammonia water has pH c.a. 8.0. It is desirable to use (b) sulphite in process (1) for improving the solubility of protein in hot water or hot aq. ammonia. The amt. used is 0.5-1.0% of defatted soy bean.
 Even with hydrous alcohol of concn. 50-70 w/w% the colouring matters, the odorous matters and the water soluble sugars in defatted soy bean can be removed. The fall in NSI can be minimised by washing at below 30 deg.C. and the soy bean protein can be extracted in high yield. Soy bean protein excellent in taste and flavour can be obtd. without acid-precipating or neutralising. (J56001854) (6pp)

TOSH D13 08510 C/05 = J8 1034-263
 Mfg. stable solid table salt prepn. for livestock - by heating mixt. of table salt, cetyl alcohol and stearyl alcohol, cooling and pressing
 TOSHIBA PHARM KK 08.06.78-JP-068322
 C03 (08.08.81) *J54160-662 A23k-01/16
 08.06.78 as 068322 (22BZ)
 Table salt is mixed while heating with 0.2-1% each of cetyl alcohol and stearyl alcohol, the mixt. cooled to solidify it and then pressed. The prepn. dissolves in the saliva of livestock but is not broken down by rain water, etc.
 In an example, 0.015% manganese sulphate, 0.03% of ferrous sulphate, 0.15% cobalt sulphate, 0.06% copper sulphate, 0.015% zinc carbonate, 0.2% cetylalcohol and 0.2% stearyl alcohol are mixed with table salt at 60-70 deg.C. and the mixt. cooled and

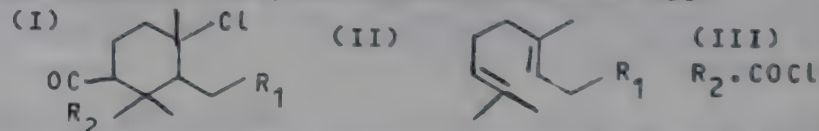
pressed under 1.4 ton/cm² to give a solid prepn. of 10x4x4cm. (J54160662) (2pp)

IWAT/ D13 56997 X/30 = J8 1034-265
 Preserving hot taste of horse radish - by kneading horseradish powder with starch hydrolysate, sorbitol and ascorbic acid, and adding glucono-lactone and organic acid
 IWATA T 09.12.74-JP-141338
 (08.08.81) *J51067-758 A23l-01/22
 09.12.74 as 141338 (BZ)
 Horseradish powder is mixed with other additive e.g. starch-hydrolysate, sorbit and ascorbic acid. The mixture is kneaded with water. To the mixt., glucono-lactone and an organic acid e.g. lactic acid are added, and the mixture is kneaded. The amount of hot taste in the kneaded horseradish is 1.20%. After 120 days, it is 1.10%. (J51067758) (2pp)

NEST D13 31085 V/17 = J8 1034-337
 Instant drink powder agglomeration - by streams of satd steam and air coaxial to powder stream
 NESTLES PROD LTD 17.10.72-CH-015185
 + P42 (10.08.81) *DE2348-033 A23p-01 B01j-02/16
 16.10.73 as 116250 (RH)
 A powder of coffee extract, tea, cocoa or milk is agglomerated by treating it with a satd. stream of air or of an inert gas which has a temp. below that of steam. Both streams have the shape of a solid of revolution and are arranged coaxially to the stream of the powder product. The steam flows pref. in a convergent stream and is sepd. initially from the powder by the stream of inert gas or air. (J49074173) (6pp)

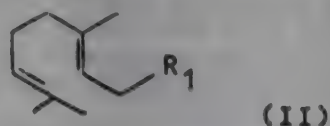
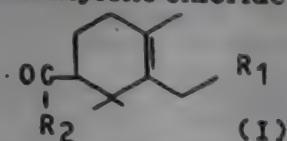
USRU D13 47960 X/25 = J8 1034-338
 Clear elastic gels for desserts - based on carrageenans
 UNIROYAL INC 24.03.75-CA-222872
 A11 (A97) (10.08.81) *US3962-482 A23l-01 + B01j-13
 23.03.76 as 031885 (AT)
 Gel forming compsn. comprises K sensitive carrageenan (I) in form of its alkali metal or ammonium salt, and a non-toxic soluble K salt other than K carrageenate, esp. K citrate in 10-110 wt., w.r.t. (I), the compsn. contg. not less than 0.01% polyvalent metal. In a second embodiment, the compsn. contains additionally 30-155% wt. w.r.t. (I).
 The compsn. may contain sweeteners and an org. acid to give a tart flavour. Dessert gels based on the compsn. are claimed.
 The gels are clear, elastic and do not suffer from syneresis. (J51126386) (10pp)

KITA/ D13 17518 X/10 = J8 1034-579
 Novel acylated cyclohexane derivs - prepd from dimethyl-octadiene derivs and corresp carboxylic acid chlorides using aluminium complex salt
 KITAHARA Y 05.07.74-JP-076987
 B05 E15 (E14) (11.08.81) *J51006-947 C07c-69/14 C07c-121/46 + B01j-27/08 C07c-67/29
 05.07.74 as 076987 (WB)
 Novel acylated cyclohexane derivs. of formula (I) (where R₁ is cyano, or (acyloxy)methyl, R₂ is lower alkyl, alkenyl or aryl) useful in prepn. of medicines and flavouring cpds. are prepd. by heating at room temp. in equimolar ratio, 3,7-dimethyl-2,6-octadienes of formula (II) (e.g. geranyl acetate, geranyl cyanide, homogeranyl acetate) and corresp. carboxylic acid chlorides (III) R₂-COCl, (e.g. acetylchloride, benzoyl chloride) in presence of aluminium chloride complex salt.
 The reaction is carried out in inert organic solvent, e.g. nitromethane and methylene chloride. (J51006947) (3pp)



KITA/ D13 17518 X/10 = J8 1034-580
 Novel acylated cyclohexene derivs - prepd by reacting dimethyl-octadiene deriv chlorides with corresp carboxylic acid
 KITAHARA Y 05.07.74-JP-076986
 B05 E15 (E14) (11.08.81) *J51006-946 C07c-69/14 C07c-121/48 + B01j-27/08 C07c-67/29
 05.07.74 as 076986 (WB)
 Novel acylated cyclohexene of formula (I) (where R₁ is cyano, (acyloxy)methyl, R₂ is lower alkyl, alkenyl, aryl), useful in medicine and food industry, is prepd. by heating at room temp. 3,7-dimethyl-2,6-octadiene of formula (II) (e.g. geranyl acetate, geranyl cyanide, 1-acetoxy-4,8-dimethylnona-3,7-diene) using complex salt of tin tetrachloride with cpd. of formula R₂-COCl (III) (e.g. chloronitril chloride, benzoyl chloride), the cpd. (II) and complex salt are taken in equimolar ratio.
 The reaction is carried out in a solvent such as nitromethane

and methylene chloride. (J51008946) (3pp)



DERC/ ★ D13 65358 D/36 ★ NL 8000-489
Lollipop making machine - transfers them by the sticks so that cooling and direction changes break connecting films on way to packing machine

DERCKX H A J M 25.01.80-NL-000489

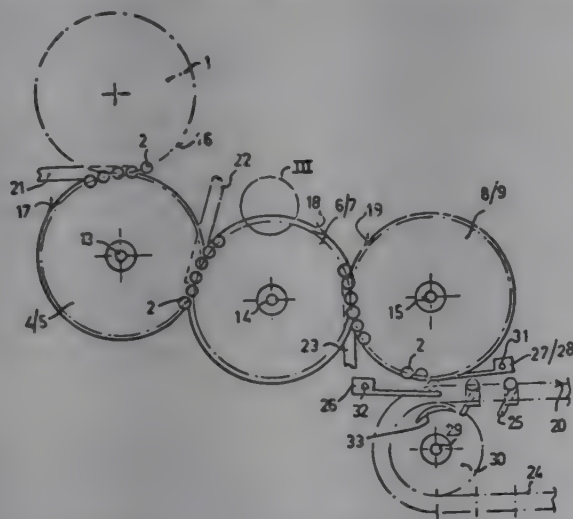
(17.08.81) A23g-03/12

25.01.80 as 000489 (1190DH)

The arrangement is for producing lollipops(2) on sticks (not shown) from a continuously extruded length of sugar. The lollipops are formed in cavities in the periphery of a rotating(16) drum(1) which cavities are recessed for the insertion of the sticks.

The lollipops are transferred(21-23) to a series of rotating (17-19) disc pairs(4,5; 6,7; 8,9) which hold them by the sticks so that the gradual cooling combined with the successive changes of direction severs the thin sugar film which still connects adjoining lollipops as they leave the drum. This cooling may be assisted by blowing (cooled) air on the lollipops held by the transfer discs.

This arrangement avoids randomising the lollipops as they leave the drum in order to separate them and re-ordering them thereafter for feeding them into a packing machine. (10pp Dwg.No.1)



TEAI= ★ D13 65404 D/36 ★ SU -776-590
Grading twisted tea leaves - by feeding into mesh drum around which, off centre, is a shell with outlet, both parts rotating and oscillating

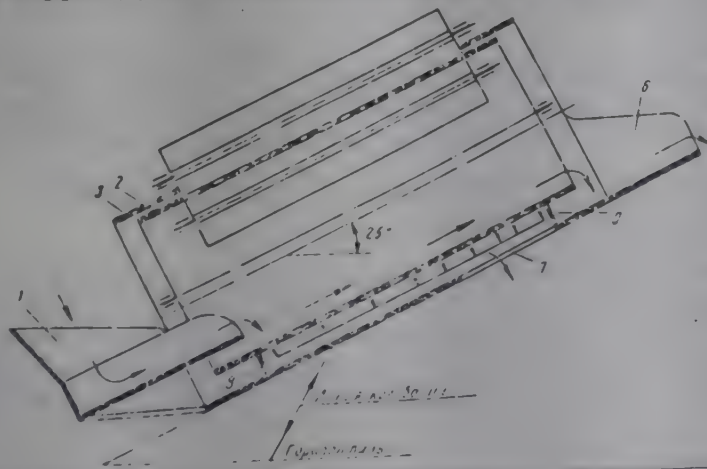
TEA INDEQUIP LAB 22.08.78-SU-659109

(07.11.80) A23f-03

22.08.78 as 659109 (29WD)

Equipment for grading twisted tea leaves, consists of mesh drum (2) with slopes and is capable of being rotated, loading hopper (1) and troughs for removing the emerging fractions.

A much more complete grading of the raw material is obtained, by also fitting a cylindrical outer shell (3) with a hole to allow the fractions to be removed (7). The mesh drum is mounted off-centre inside the shell, and the two are installed so that they undergo an oscillating motion. The trough (6) for removing the fraction passing through is installed at the top end of the shell, and the loading hopper (1) at the bottom end. (3pp Dwg.No. 1)



GRAI= ★ D13 65406 D/36 ★ SU -776-633
Oats groats treatment - by oats drying after separation from impurities and fractionation

GRAIN PRODS INST 27.12.78-SU-704600

P41 (07.11.80) B02b-05/02

27.12.78 as 704600 (110WD)

The method involves separating the oats from the impurities steaming, drying to 8-10% humidity, cooling, separation into two fractions according to size, two-stage husking, grinding and sorting.

In order to increase the output and improve quality, and lipolytic enzymes inactivation and to stabilise the fat acidity value, the oats are dried after separation from impurities. The products after second stage husking are mixed and the core is removed. The steaming is carried out after screen control of the grain and then it is dried. Bul. 41/7.11.80. (3pp)

UGLI= ★ D13 65452 D/36 ★ SU -786-94
Tunnel and trolley cheese press - has overhead rails mounted on adjustable buffers, for variable press effort

UGLICH BUTTER CHEES 15.01.79-SU-713166

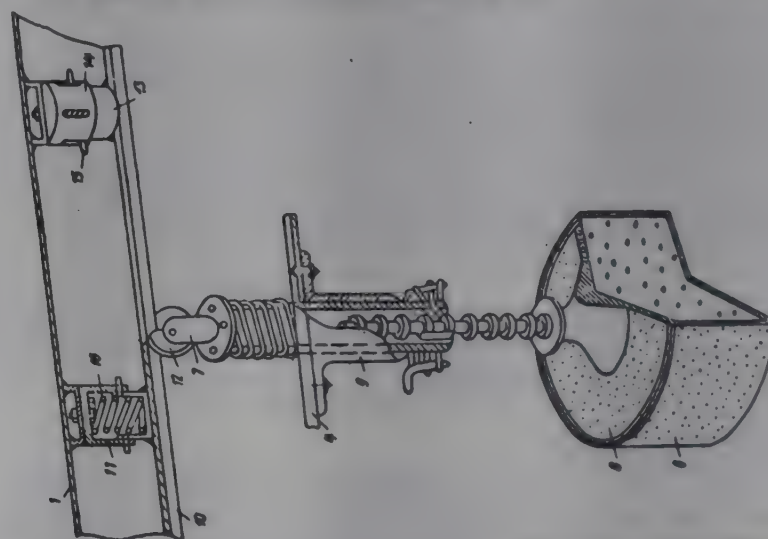
P13 (15.12.80) A01j-25/15

15.01.79 as 713166 Add to 644420 (1439WD)

Cheese press, consists of a square tunnel with a rail trolley to carry the cheeses in their moulds and overhead rails with a series of sloping and horizontal sections, which reduce in height gradually along the tunnel so that the pressure on the cheeses can be increased through pressure elements, is basically as described in Parent Cert. No. 644420.

Now the cheese press can be used for pressing cheeses of different types by having the overhead rails (10) joined to the tunnel roof (1) by means of spring-loaded buffers (11). Each buffer is made up of hollow sleeves (13,14) with an inner spring (16) and guide pins (15) sliding in slots.

The buffers can be adjusted for height, and they are set so that the sloping and horizontal sections of the overhead rails (10) are of the required length to exert pressure on the cheese moulds through rollers (12) and pressure elements (4) are the appropriate intervals. Bul. 46/15.12.80. (3pp Dwg. No. 3)



DAIR= ★ D13 65558 D/36 ★ SU -787-986
Estimating penicillin residue in animal milk after drug therapy - using thin-layer-chromatography from alcohol after precipitating protein with acetone and removing fat by chloroform extn.

DAIRY IND RES INST 28.02.79-SU-732599

S03 (D16) (25.12.80) G01n-33/04

28.02.79 as 732599 (114VE)

Penicillin residue in milk estimation is accelerated, and test accuracy increased by pptg. milk protein with acetone using milk:acetone ratio 1:2; removing fat by CHCl_3 extn.; dissolving evapd. filtrate in ethanol; analysing ethanoic soln. by thin-layer chromatography, fractionating the chromatogram with 40/20 ethylacetate/ acetic acid solvent mixt.; developing chromatogram with iodine vapour.

Typically, penicillin is shown up as dark-brown chromatogram (R_f is 0.83-0.85), which is compared with a std. to determine the soln. concn. The analysis is sensitive down to 0.5 mg/l penicillin concn. Bul. 46/15.12.80. (3pp)

AUTE= ★ D13 65589 D/36 ★ SU -789-068
Granulated solid prod. for e.g. young fish food - involves preheating of wetting liquid and granulation by radial rods at below heat stability

AS UKR TECH HEAT PH 20.09.78-SU-666275

C03 P14 (23.12.80) A01k-61 A23k-01/20 B01j-02/10

20.09.78 as 666275 (132GW)

The process comprises wetting the mixture (e.g. synthetic food mixt. for young fish and containing thermolabile hydrophobic components) with simultaneous mixing for 15-60 seconds, and final drying of the granules. To decrease the powder fraction content without impairing the thermolabile hydrophobic properties, the wetting liquid is preheated to 60-90 degrees C, and

The wetting is continued until a moisture content of 25-40% is attained. Bul.47/23.12.80. (6pp)

VILE = ★ D13 65590 D/36 ★ SU-789-069
Prepn. of granulated food for fish - by spraying powdered components with aq. acid, granulating and drying in fluidised bed to produce floating in water granules

VILESOV NG 13.11.78-SU-695458
C03 P14 (30.12.80) A01k-61 A23k-01/20
13.11.78 as 695458 (70VE)

Granulated compound feed for fish is prepd. by moistening the mixt. of pulverulent components. This method is improved by spraying the mixt. with an aq. soln. contg. 1-3% of acetic acid, citric acid or HCl in amt. corresp. to 4-6% of the wt. of the solids. By this method, the density of the granules is decreased, whereby they are prevented from sinking, and their stability in water is enhanced.

The moistened mixt. is granulated by forcing it through nozzles or forming in a fluidised bed or in a drum or on a disc granulator. The granules are dried in a gas stream. The density is less than 1.0 g/cu.cm. Bul.47/23.12.80. (2pp)

POND = ★ D13 65591 D/36 ★ SU-789-077
Peat-base food for fish prepn. - contg. ammonium nitrate, superphosphate and bran to promote microbial activity

POND FISHING RES 23.03.79-SU-742441
C03 P14 (26.12.80) A01k-61 A23k-01/16

23.03.79 as 742441 (70VE)

Food for fish is prepd. by mixing peat with a nitrogen- contg. substance and superphosphate; the mixt. is subsequently kept for several days in air. The bacterial synthesis of proteins in the peat is intensified by using peat contg. 55-68% of moisture; using NH_4NO_3 ; and adding bran. The wt. ratio peat: bran: NH_4NO_3 : superphosphate is 81:15:3:1 to 83:10:5:2. The air-maturing time is 5-7 days.

The ammonium nitrate used in the above compsn. pref. contains 33-35% of nitrogen. The bran serves as a nutrient for the microflora thus intensifying its proliferation 3-4 times compared with the conventional method. As a result, the temp. of the mixt. spontaneously rises to 55-62 deg. C and, hence complex organic substances present in the peat undergo fermentative splitting yielding easier assimilable fragments. Bul.47/23.12.80. (2pp)

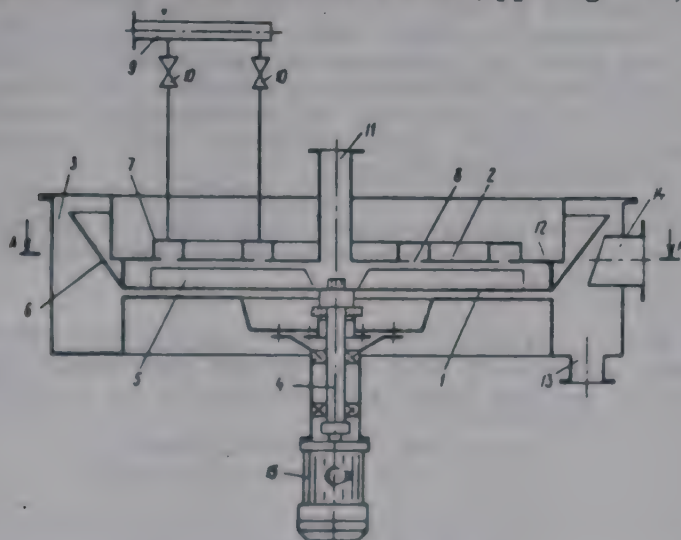
MOGI = ★ D13 65594 D/36 ★ SU-789-087
Equipment for heat treatment of cream during butter prodn. - by passing through a body where it is mixed with steam, to heat, sterilise and deodorise the product

MOGIL TECHN INST 16.03.79-SU-739995
(23.12.80) A23c-03/02

16.03.79 as 739995 (29WD)

Device for the thermo-vacuum treatment of liquid food products, e.g. cream, during the production of butter, has body (1) enclosed inside a vacuum chamber. The body is fitted with a lid (2) and positioned so that it can be rotated. Circular channels (7) are disposed in the lid for the distribution of steam, and there are pipes attached to the cavity of the body to admit and withdraw the product and steam.

Dead zone formation in the body is prevented, with intensification of the vacuum-cooling and deodorisation processes, by fastening blades (5) to the internal surfaces of the body. Conical shells (6) are fastened to the external surface, with their larger bases pointing towards the lid. (3pp Dwg.No.1)



LIBU = ★ D13 65595 D/36 ★ SU-789-088
Accelerated prepn. of soured milk products - includes souring part of whole milk with lactic flora *Streptococcus* strain mixt., followed by ultrafiltration and addn. to remaining milk

LITH BUTTER CHEESE 21.08.78-SU-659724
(23.12.80) A23c-09/12

21.08.78 as 659724 (70VE)

Prepn. of soured milk products is accelerated and their nutritive value is enhanced by dividing the starting material into two parts; one of them is soured with a mixture of cultures of *Streptococcus lactis*, *Streptococcus cremoris*, *Streptococcus paracitrovorus* and *Streptococcus acetoinicus*. When this mixt. reaches 35-45 deg. T, ultrafiltration is performed to obtain a protein-bacteria concentrate having pH 4.4-4.9. The other part is normalised and soured with the above concentrate.

The concentration of the soured mixt. by ultrafiltration is pref. carried out at 10-30 deg. C, to a concn. of the solids amounting to 10-20%. The product is enriched in proteins. Bul.47/23.12.80. (2pp)

ERDA = ★ D13 65596 D/36 ★ SU-789-089
Sour milk prod. prodn. - involves using specified mixt. of lactobacilli and lactococcus strains for souring process

EREV DAIRY COMBINE 12.07.78-SU-670196
(23.12.80) A23c-09/13

12.07.78 as 670196 (932GW)

Process is used particularly for prodn. of sour milk prods. by the 'tank' method. It includes prepn. of raw material-homogenisation; pasteurisation and cooling; introduction of a lactic acid culture ferment and souring of the milk; addn. of nutrient gelatin; preliminary cooling and stirring; pouring; final cooling; maturing; and storing.

In order to improve the quality of the final prod. and to extend storage periods, lactobacilli, *Lactobacterium plantarum*, *Lactobacterium casei* and *Lactobacterium lactis*, and lactococcus strains, *Streptococcus lactis* and *Streptococcus bovis* are used in ratio 1:2 as ferment. The souring process is carried out for 2.5-3.0 hrs. at 40-42 deg. C until acidity 64-70 deg. T is reached. Nutrient gelatin is introduced before fermenting and is in the form of a gel-forming soln. with concn. 10-20% and temp. 45-46 deg. C. Optimal addition of nutrient gelatin is 0.6% based on anhydrous gelatin content in the mixt. (4pp)

LIBU = ★ D13 65597 D/36 ★ SU-789-090
Substitute for plain milk for young farm animals - prepd. from skimmed milk, fat emulsion, phosphatide(s), vitamin(s) trace elements and biomydin, using *Lactobacterium acidophilum* strain

LITH BUTTER CHEESE 14.04.78-SU-603065
C03 (23.12.80) A23c-11 A23k-01/08

14.04.78 as 603065 (70VE)

Substitute for plain milk for young farm animals is prepd. on the base of a sec. milk product (pref. skimmed milk), fats of non-milk origin, phosphatides, vitamins, microelements and biomydin. A fat emulsion is prepd., normalised with the sec. milk product, pasteurised, cooled to the souring temp., treated with a pure culture of *Lactobacterium acidophilum* and soured.

The biological value of the product and its prophylactic medical properties are improved by using mutants *Lactobacterium acidophilum* L16-2, L16-3 or L16-4, or their mixt. in equal amts., or a mixt. of L16-2 and L16-3 in eq. amts. These mutants are resistant to biomydin.

Lactic flora streptococci can opt. be added. The sec. milk product can opt. be conc. before the normalisation with the fat emulsion. Bul.47/23.12.80. (4pp)

BDAI = ★ D13 65598 D/36 ★ SU-789-091
Substitute for plain milk for young farm animals - prepd. from skimmed milk opt. mixed with buttermilk, proteinaceous concentrate contg. fat and phosphatide(s), and biologically active cpds.

BELO DAIRY IND RES(MIME =) 14.08.78-SU-657553
C03 (23.12.80) A23c-11/02

14.08.78 as 657553 (70VE)

Milk substitute compsn. is improved by using as a source of fat and phosphatides a proteinaceous concentrate contg. 30-38% of fat and 0.6-0.8% of phosphatides, obtd. during the melting of a soft, crude fat. The content of this concentrate is 10-30%, and that of the biologically active substances is 0.04-0.07%; the remainder is milk. The milk base pref. consists of skimmed milk or its mixt. with buttermilk in ratio 6:1 to 9:1.

The title compsn. is produced by pasteurising the milk base, concentrating it, mixing a part of it with the fat base and biologically active substances, admixing the rest of milk and drying. This method is improved by heating the fat base to 50-70 deg. C, and then mixing it with the first part of milk, dispersing, stirring and filtering. The ratio of the proteinaceous fat-

phosphatide concentrate to the first milk part is pref. 1:1. Bul.47/23.12.80. (4pp)

MOMO = ★ D13 65599 D/36 ★ SU-789-092
Protein-enriched soured cream mfr. - from slightly acidified cream and defatted curd, using mesophilic and thermophilic lactic flora streptococci

MOSC MOLOKO PROD 04.09.78-SU-659333
(23.12.80) A23c-13/12

04.09.78 as 659333 (70VE)

Soured cream is produced by normalising cream w.r.t. the fat, introducing a proteinaceous filler, pasteurising, homogenising, cooling to the souring temp. slightly, souring with a lactic acid culture, packing and maturing. This process is accelerated, and the taste and consistency of the product are improved by using as a proteinaceous filler a defatted curd, which is introduced into a slightly acidified cream in a ratio 0.2:1.0 to 0.3:1.0.

The slight souring of the cream is pref. carried out with a preparation contg. mesophilic and thermophilic, lactic acid streptococci in ratio 1:2. The temp. of the proteinaceous filler and the slightly acidified cream is 28-32 and 28-45 deg. C. respectively. The prod. is cooled to 5-8 deg. C, and matured for 6-8 h. Bul.47/23.12.80. (3pp)

UGLI = ★ D13 65600 D/36 ★ SU-789-093
Bacterial fermentation starter for dry curd cheese mfr. - contains *Streptococcus diacetylactis*-271 and -851 3, *Lactobacterium bulgaricum*-127 and *Lactobacterium helveticum*-303-5 and -305-10 strains

UGLICH BUTTER CHEES 11.09.78-SU-663359

(D16) (23.12.80) A23c-15 C12n-01/20

11.09.78 as 663359 (314VE)

Bacterial fermentation starter comprises osmophilic strains *Streptococcus diacetylactis*-271 and -851 (3); thermophilic bacilli *Lactobacterium bulgaricum* -127; and thermophilic bacilli *Lactobacterium helveticum* -303(5) and -305 (10). The ratio of the osmophilic strains to the thermophilic strains to the thermophilic bacilli is 1:1. The starter has high activity and produces a good quality, aromatic cheese from skimmed milk. (6pp)

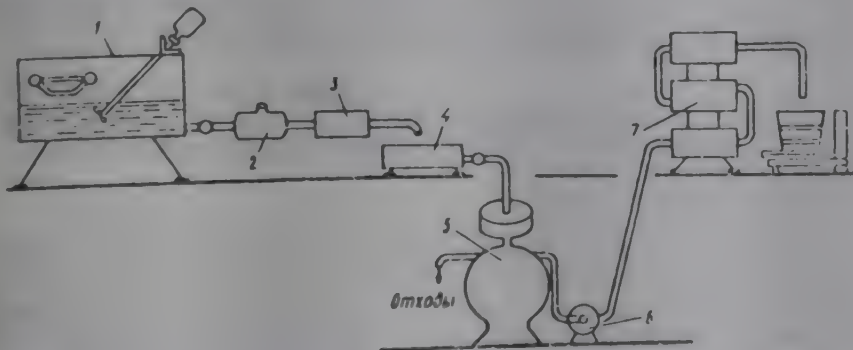
MIRY/ ★ D13 65601 D/36 ★ SU-789-094
Rendered animal oil prodn. - by treating raw fatty material in melter and injecting it with steam, with instantaneous cooling to blow fat crystallisation temp.

MIRYASHEV B N 22.09.76-SU-748060 (22.09.76-SU-407824)

(23.12.80) A23c-15/14

22.09.76 as 407824 (29WD)

In the preparation of pure fats in the dairy ind., the raw material is melted, with increased temp. and hydro-mechanical treatment in order to break down the bonds between the proteins and fats. The fat fraction is subsequently separated, cooled to the temp. at which the fat crystallises out, and the main product is packed. Loss of fat is minimised, the process is speeded up and made continuous, by carrying out the heat and hydromechanical treatment using an injector. The raw material and steam are simultaneously fed through at 150-160 deg. C and 5-6MPa pressure, in the ratio of 1kg of steam to 10kg of raw material. The mixture emerging is instantaneously cooled to the crystallisation temp. (3pp Dwg.No.1)



UGLI = ★ D13 65602 D/36 ★ SU-789-095
Enriched butter prodn. - from high-fat cream, protein-enriched buttermilk, beet sugar and chicory

UGLICH BUTTER CHEES 11.08.78-SU-656642

(23.12.80) A23c-15/14

11.08.78 as 656642 (70VE)

Butter Yaroslavskoe (RTM) is produced by adding a proteinaceous filler to a high-fat cream, normalising the mixt. with respect to moisture and fat, and converting the mixt. into butter by the known method. This process is improved by using as a protein filler an emulsion contg. 39-42.5% of buttermilk, 8-9% of beet sugar and 3.0-3.5% of chicory.

This emulsion is prepd. by mixing dried or concd. buttermilk

with natural buttermilk in such ratio that the solids content is 40-43%. Then beet sugar is added; the mixt. is pasteurised. Subsequently a soln. of chicory in buttermilk is added and the mixt. is emulsified. By this method the biological value and the dietetic properties of the butter are enhanced. Bul.47/23.12.80. (3pp)

KGOB = ★ D13 65603 D/36 ★ SU-789-096
Milk prod. for infants in weaning period - prepd. from cow milk, sugar, cream, vegetable oil, vitamin/A, bacterial souring agent, ascorbic and nicotinic acids, lysozyme and whey

KIRG OBTETRICS 23.03.78-SU-595298

(23.12.80) A23c-19/02

23.03.78 as 595298 (70VE)

Soured milk prod. is prepd. by adding sugar to milk, filtering, adding microelements, cream, a vegetable oil and vitamin A, homogenising, pasteurising, cooling to the souring temp., introducing a souring preparation, ascorbic acid nicotinic acid and lysozyme; effecting souring, cooling and maturing.

The biological value of the product is increased by introducing into the milk (before the souring or the pasteurisation) whey from a skimmed milk, obtd. by the rennet curdling; the ratio is 1:1. The protein content in the final product is 1.9-2.1%.

The above prod. has the protein content very near to the female milk, and so are the phosphorus and potassium contents. Thus this food is suitable for the weaning period. Bul.47/23.12.80. (3pp)

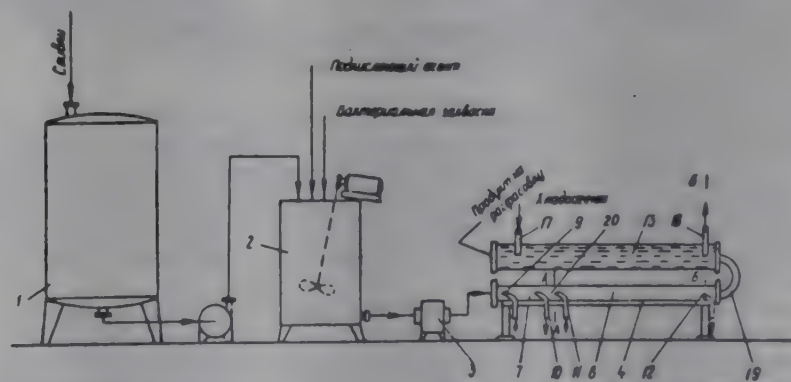
DAIR = ★ D13 65604 D/36 ★ SU-789-097
Milk-curd and protein product prodn. - by mixing partly-prepared milk with bacteria, acid, heating, coagulating and cooling

DAIRY IND RES INST 23.10.78-SU-678534

P13 (23.12.80) A01j-25 A23c-19/02

23.10.78 as 678534 (29MI)

Method for production of milk-protein curd, and equipment, e.g. sour-cream and 'cottage' cheese, by pasteurisation, homogenisation, cooling, introduction of an acidifying agent, and bacterial fermenter with continuous mixing, heating, formation of the cream in a laminar mode, packing and cooling. The process is made continuous and layering out is prevented, as is breakdown of the structure of the cream cheese, by holding the cooled raw material for 1/2 -1 hour. Liquid cream is used to produce the bacterial fermenter. The container (1) holds the original cream, which is passed to the mixer (2) where the fermenter and acidifier are added. The mixture goes through the tubular coagulator (7) divided into sections, with provision to pass heat-carrier through. The coagulator is connected to a final tubular cooler (13) prior to packing. Bul.47/23.12.80. (4pp Dwg.No.1)



REFR = ★ D13 65605 D/36 ★ SU-789-098
Molten cheese prodn. - by melting, pouring into packets and cooling instantaneously to cryoscopic temp.

REFRIG IND RES 16.03.79-SU-737445

(23.12.80) A23c-19/08

16.03.79 as 737445 (29WD)

Method for the production of molten cheese, primarily the manufacture of a mixture, its melting, packing in liquid form, and cooling are claimed. The speed of cooling is increased, to enhance storability of the material, by carrying it out in two stages: (1) the surface temp. of the product is reduced to a cryoscopic level, and (2) it is increased to 1-1.5 deg. C., this temp. being maintained up to the middle-volume temp. equal to the temp. of the storage chamber. (2pp)

MOMD ★ D13 65606 D/36 ★ SU-789-099
Heat treatment equipment for child food prodn. - has inner and outer vertical tubes inside chamber, moving relatively with matching holes and rotating knives

MOSCOW MEAT DAIRY INST 04.10.78-SU-670895

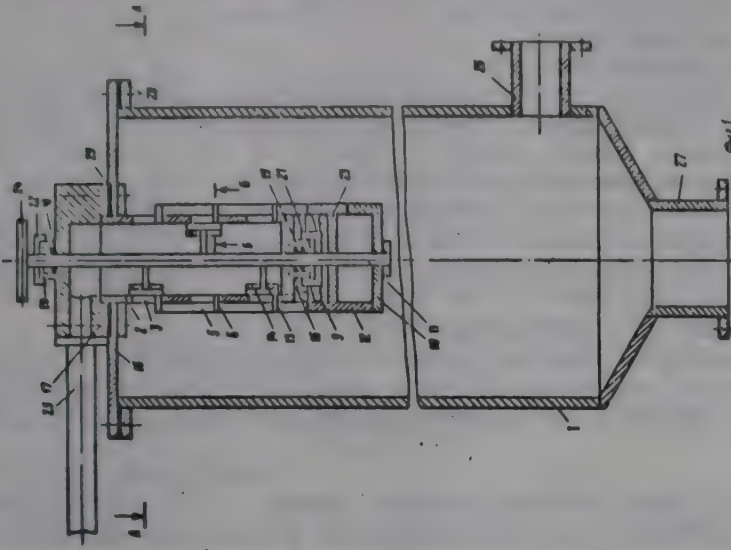
(23.12.80) A23c-03/02 A231-03

04.10.78 as 670895 (29WD)

Device for heat-treatment of edible products (in the meat and

dairy industry), e.g. for the production of foods specially for children, has chamber (1) with a concentric inner vertical pipe (2) having holes for passing the food product thorough, plus a pipe for the admission of steam.

Productivity and intensity of the process are increased, as a result of uniformly feeding the product into the chamber, by placing a second pipe, with rectangular holes (5), on the outside of the first pipe so that it can be moved up and down. Knives (14) are mounted in the latter, being connected to the centre shaft (11) so that they can be turned. The holes in the two pipes are located in corresponding positions. (4pp Dwg.No.1)



GRUD/ D13 54020 C/31 = US 4283-923
Continuous bulk freezing of food - in preliminary fluidised bed and succeeding non fluidised bed (SW 24.3.80)

GRUDA Z (CEPE) 22.08.78-PL-209192
Q75 + Q78 (18.08.81) *GB2039-015 + F28g-01
17.07.79 as 058343 (1376BZ)

Food products are frozen continuously in appts. including a series of cooling units side-by-side to each other in an insulated housing, a foraminous surface above at least the first cooler on which a fluidised bed of the product is formed, and a conveyor belt for feeding the product to the bed. The belt can be slid along the axis of the foraminous surface. Part of the foraminous surface is a grate which can be cleaned by combs.

Damage to product is reduced. (6pp)

GOUP/ D13 58774 A/33 #US 4284-650
Chewing gum contg. water soluble fluoride - xylitol, gum base and pref. sorbose or sorbitol

GOUPIL J J 04.04.77-FR-010051 (05.04.78-US-893783)
B06 E34 (D21) (18.08.81) *BE-865-617 A23g-03/30
13.09.79 as 075090 (918DJ)

Chewing-gum compsn. (I) in the form of a tablet consists of an aromatised alkaline earth-free gum base, sodium fluoride and a water soluble artificial sweetener (II) consisting of xylitol mixed with L-sorbose of formula C₆H₁₂O₆. (II) comprises 45-90 wt.% of (I) and the wt. ratio of the xylitol to sorbose is 1-10:10-1. (I) is free of alkaline earth constituents capable of forming insoluble fluoride cpds.

(I) can be prepd. by heating a gum base free of any alkaline earth to about 65 deg.C, slowly mixing the gum base and incorporating sodium fluoride xylitol and L-sorbose with a cpd. selected from liq. paraffin or glycerin. The wt. ratio of xylitol to sorbose is 1-10:10-1.

Gum can be used for the admin. of fluorine and the usual cariogenic constituents of the prior art gum have been replaced. (4pp)

USDA * D13 65950 D/36 ★US 4284-651
Preparing peeled citrus fruit sections - by warming scoring peel and vacuum infusion with pectinase soln. to facilitate peeling and sectioning

US SEC OF AGRICULTURE 23.07.80-US-171627 (22.09.78-US-944679)
(18.08.81) A231-01/21

23.07.80 as 171627 (+ 21.6.79-US-050895) (955NS)

The fruit is washed with mild detergent and rinsed, then heated to a surface temp. of 40-60 deg.C and core temp. 20-40 deg.C. The peel surface is scored so as to penetrate the white layer but not the juice sections. The fruit is then vacuum infused at 25-30 ins Hg with a soln. of pectinase so that air spaces in the white layer are filled with the soln. After incubation at 30-60 deg.C for 10-60 mins, the peel and other fruit membranes are removed, and intact juice segments are separated. These are kept under refrigeration.

The segments are firm, whole and have the flavour and appearance of fresh fruit. The process has a high yield and does

not produce large vols. of alkaline waste water. (3pp)

QUAK * D13 65951 D/36 ★US 4284-652
Soft, dry pet food contg. non-functional protein and matrix - made of amylaceous component, fat, polyhydric alcohol, and contg. starch deriv.

QUAKER OATS CO 12.02.79-US-011401 (24.01.77-US-761956)
C03 (18.08.81) A231-01/30

12.02.79 as 011401 (1251DJ)

Soft, dry pet food comprises 10-50 wt.% non-adhesive, non-functional animal or vegetable protein source (A); adequate minerals and vitamins, plus 50-90 wt.% matrix (B). (B) consists of (wt.%) (i) 10-90% one or more amylaceous components, at least 0.5 wt.% of the matrix being derivatised starch; (ii) 5-55wt.% one or more fats; (iii) 3-50 wt.% one or more polyhydric alcohols and (iv) at least 5% water.

Prof. the food has moisture content 5-15% and water activity is 0.6-0.75. Also claimed are the matrix (B) itself, and compsns. made of 10-90 wt.% hard component plus 10-90 wt.% of the claimed soft food.

The matrix has excellent palatability, and soft foods contg. it require no protein additives, retain their softness during prolonged storage, and can be blended with hard components without loss of integrity. (9pp)

INFL * D13 65953 D/36 ★US 4284-654
Augmenting aroma or taste of foodstuffs - by addn. of 1-ethynyl-2,2,2-trimethyl-1-cyclohexanol

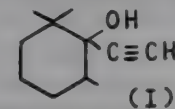
INT FLAVORS & FRAGR INC 05.06.80-US-156677 (26.10.79-US-088451)

E15 (18.08.81) A231-01/22

05.06.80 as 156677 Div.ex.4250332 (1248BZ)

Aroma or taste of a foodstuff is augmented or enhanced by addn. of 0.02-500 p.p.m. of 1-ethynyl-2,2,6-trimethyl 1-cyclohexanol of formula (I).

Cpd. (I) is disclosed in US 4250332 (Der.15574 D/09), both as an organoleptic agent, e.g. also for use in perfumes, cosmetics, medicinal prods., tobaccos etc., and as an intermediate in the prepn. of beta-damascone, which has similar organoleptic uses. (22pp)



SCMZ * D13 65954 D/36 ★US 4284-655
Low fat spread comparable to margarine - contg. partial glyceride mixt., and surface active cellulosic thickener

SCM CORP 22.04.80-US-142802

(18.08.81) A23d-05

22.04.80 as 142802 (955AT)

A flavoured spread is an oil in water emulsion contg. (a) water, (b) a partial glyceride compsn. contg. 38-48% diglycerides, monoglycerides in ratio to diglycerides 1:5 to 1:15, and triglycerides in an amt. less than the total of mono- and diglycerides combined; (c) surface active cellulosic thickener and (d) flavouring. The wt. proportions of (a):(b):(c) are 30-100:10:0.5-2, and the Brookfield viscosity is at least 100000 cps. through a temp. range of 38-90 deg.F.

The compsn. has a low calorific value but the same mouthfeel, taste and appearance as conventional margarine or other spreads, and melts down in the same way. It has good stability to phase, sepn., and is plastic at refrigerator temps. (6pp)

HWAS/ * D13 65955 D/36 ★US 4284-656
Soya protein curd for use in foods - prepd. by extn. of protein from defatted bean material and pptn. by pH adjustment and heating

HWASCP 14.12.79-US-103732

(18.08.81) A23j-01/14 A23j-03

14.12.79 as 103732 (955AT)

Defatted soybean material is extracted with water to obtain an aq. soln. contg. at least 2 wt.% protein. The pH of the extract is adjusted to 5.4-8.0, and it is heated to 80-170 deg. C to cause coagulation of protein. The curd is sepd. and washed with water.

The soy material pref. has NSI 40-65%. The extract obtd. will typically contain 3.5-9.0 wt.% protein. The pH may be adjusted by fermentation, by addn. of an edible acid, or by addn. of a divalent cation salt, possibly accompanied by a food grade acid or base. The cure obtd. should have an interstitial water content of 72-85%.

The prod. is useful as a protein supplement in foods. It has a bland flavour, light colour and smooth tender elastic texture. (7pp)

KRAF- ★ D13 65956 D/36 ★ US 4284-657
Aq. based stable fluidised oleoresin compns. - contg. polyethoxylated sorbitan mono:oleate, acid tolerant gum, and phosphoric acid

KRAF INC 09.01.80-US-110787

(18.08.81) A231-01/22

09.01.80 as 110787 (955NS)

Compsn. contains 10-20 wt.% oleoresin, 10-20 wt.% polyoxyethylene ethers of sorbitol monooleate contg. about 20 EO gps. per molecule, 0.25-2 wt.% edible gum which can provide thickening under acidic conditions, 0.025-1 wt.% phosphoric acid, and at least 60 wt.% water. The oleoresins e.g. of black pepper, clove or ginger. The gum is esp. xanthan gum. Opt. 0.001-0.2 wt.% of preservative e.g. potassium sorbate or sodium benzoate may be included. The pH is pref. below 4.5, (below 3.5.) The compsn. is pref. prepd. by blending the surfactant, oleoresin, gum, and optional preservative, at elevated temp. then mixing with water and acid under high shear.

The compsn. is uniform, stable easily handled and does not affect the physical props of food to which it is added. (6pp)

INFL ★ D13 66020 D/36 ★ US 4284-819
6-Acetyl-5-methyl-butyl-1,1-dimethyl-indane and isomer - useful for augmenting flavour of foodstuffs, dentifrice, perfumes etc.

INT FLAVORS & FRAGR INC 05.06.80-US-156772 (20.10.78-US-953180)

B05 E14 (D23) (18.08.81) C07c-49/79

05.06.80 as 156772 Div.ex.4209543 (1248BZ)

6-Acetyl-5-(3-methyl butyl)-1,1-dimethylindane (I) and 5-acetyl-7-(3-methyl butyl)-1,1-dimethylindane (II), both being liquids at ambient temp. and pressure, are new.

Cpds. (I) and (II) are broadly disclosed in US 4209543 (Der. 49672 C/28), and their mixts. with as-hydrindacenes are used for augmenting the flavour of foodstuffs, chewing gums, toothpastes, medicinal prods., tobaccos, perfumes and perfumed articles. (24pp)

INFL ★ D13 66021 D/36 ★ US 4284-824
Methyl-substd.-norbornane-carboxaldehyde(s) - useful for augmenting or enhancing esp. blueberry or raspberry flavours

INT FLAVORS & FRAGR INC 22.05.80-US-152187

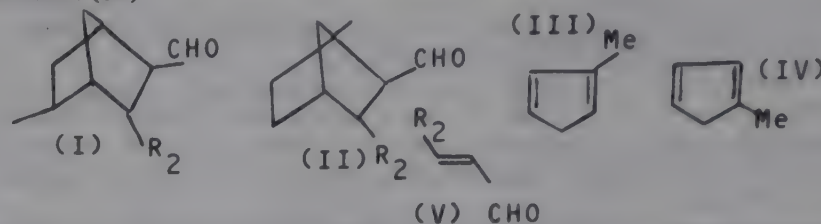
E15 (D23) (18.08.81) C07c-47/34

22.05.80 as 152187 (478HM)

The mixt. of Me-substd.-norborane -carboxaldehydes (I) and (II) is now when prepd. as follows: (a) mixt. of Me- cyclopentadienes

(III) and (IV) is treated with an aldehyde (V) in a solvent and in the presence of a catalyst $R'mAlX_n$ and a triethanolamine promoter at 0-50 deg.; and (b) the prod. is hydrogenated over Raney Ni or supported Pd at 15-50 deg./25-100 psig. (where R2 is H or Me; R' is 1-3C alkyl; X is Cl or Br; and m and n are 1 or 2 (m + n is 3)).

(I) and (II) are useful for augmenting or enhancing the organoleptic props. or a wide range of perfumes, foodstuffs, chewing gums, etc. partic. those having blueberry or raspberry flavours. (I) and (II) are prepd. by an efficient, economical process. (33)



KAYC/ D13 14660 C/08 #WP 8102-241
Coffee product resembling fresh ground coffee - consisting of finely ground coffee and opt. additives adhered to nut shell matrix

KAY C 03.10.78-US-948166 (11.02.80-WP-U00140)

(20.08.81) *US4188-409 + A23f-05/44

11.02.80 as U00140 (955DJ) (E) US1204881 US4076847 US4188409 N(BR DK JP) E(CH DE FR GB NL SE)

A brewable coffee prod. is claimed consisting of a matrix of edible nut shells having pulverised coffee retained on the surfaces. The compsn. opt. contains additives e.g. roasted soybeans, chicory, dandelion root or sunflower seed. The nut shells are pref. of black walnut, and are pretreated by crushing and hot water washing or steam cleaning.

The prod. resembles coarsely ground fresh coffee and can be used in the same way, but is cheaper, and is capable of higher solids extraction without poor water flow or the prodn. of a dark beverage contg. suspended solids. (19pp)

See Also

D15 EP--34222	D16 DD-148764	D16 FR2474052
D21 GB1596924	D23 DS2860714	D23 DS2960374
D23 DS2960379	D23 EP--34334	D23 J56090076

D14: FOODSTUFF MACHINERY

THAL ★ D14 64336 D/36 ★ DE 3045-134
Jet film dryer for sticky material - with mesh panels in jet chamber above profiled distributor plate

VEB SCHWERMASCH THALMANN 16.01.80-DD-218476

J08 Q76 (27.08.81) F26b-03/08

29.11.80 as 045134 (39HM)

Jet film drier for granular, fibrous or sticky solids by gaseous media, for use in the chemical and food industry, has a wedge-shaped jet chamber in which the gas ascends through a distributor plate and which is subdivided by vertical wire mesh panels.

The solids are introduced above the jet chamber. The distributor plate has a gradually narrowing slot except at the end where a wide opening faces the discharge pipe at the top of the drier.

This drier has a reduced power consumption and low capital cost. Its drying action is gentle and produces high-quality prods. (15pp)

CSIP/ ★ D14 64345 D/36 ★ DE 3046-704
Fish feeding mechanism - powered by solar cell and manually adjustable by varying gap

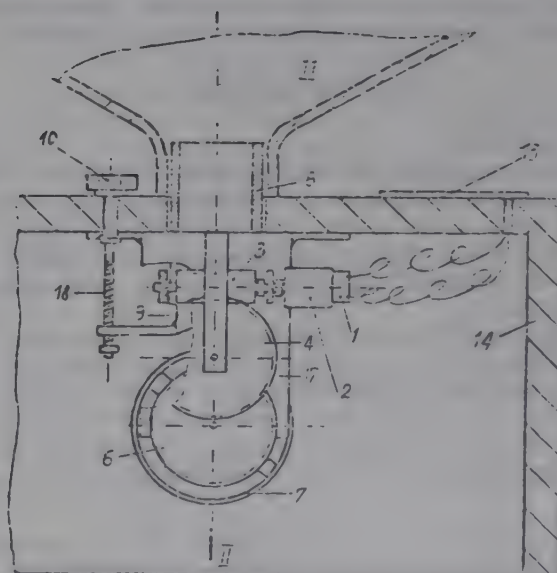
CSIPEK L 13.12.79-AT-007857

X25 P14 (27.08.81) A01k-05/02 A01k-61/02

11.12.80 as 046704 (39RH)

Granular or powdery foodstuff, esp. for fishes, is dispensed from a funnel by a feed roller, driven by a solar cell powered electric motor. The feed rate is adjustable by a tube which can slide in the discharge sleeve of the funnel and vary the gap relative to the feed roller periphery.

This saves complex time controlled systems and automatically cuts out the feeding at night. No external power supply is needed so that the device can be used for remote surface waters. The feed rate can be easily adjusted to suit the size consist of the foodstuff. (9pp Dwg.No.1)



NEST D14 62824 D/35 = EP --34-291
Batch heat treatment of particulate solids - in rotating vessel with liquid subsequently separated in second rotary vessel

SOC PROD NESTLE SA 15.02.80-GB-005182

(26.08.81) *GB2069-312 A231-03/16 + A231-01/*

02.02.81 as 100706 (1358AS) (E) No-Citns. E(CH DE FR IT LI NL SE)

Treatment partic. of foodstuffs, comprises heating in a rotating vessel imparting a tumbling action and contg. substantial amts. of liquid, then transferring the mixture to a second rotary vessel, discharging the liquid, introducing a different liquid and rotating to tumble and blend solids and liquid.

Solid and liquid are pref. sepd. in the second vessel by a reversible strainer and the solids is cooled in the heat-treatment

vessel. The second vessel does not require a jacket. The first liquid is e.g. hot water, partly formed by condensn. of live steam injected to heat the batch. The second liquid is e.g. a sterile sauce. (7pp)

APVC ★ D14 64412 D/36 ★EP --34-429
Vessel for heat treatment of particles - with pivotable strainer for separation of cooking liquid from particles

APV CO LTD 15.02.80-GB-005181

(26.08.81) A231-03/16

02.02.81 as 300417 (295RP) (E) GB1445941 FR2290163 DE2829381 FR2412316 E(DE BE CH FR GB LI NL)

Particulate solids are heat treated in a rotary vessel by a tumbling action. A strainer is mounted in the vessel. This is movable between an inoperative position clear of the vessel wall, and an operative position when it forms a barrier against passage of the particulate solids.

Pref. the vessel wall is formed with a protruding shelf which overlaps the edge of the strainer when in the operative position. Pref. the strainer is movable about an axis of set below the axis of rotation of the vessel.

The strainer may be used to remove cooking liquid from edible materials prior to mixing with a sauce. The cooking and mixing with sauce can be carried out in a single vessel. (10pp)

COAT/ ★ D14 64474 D/36 ★FR 2473-851
Machine for sepg. trimming and cleaning bunches of shallots - with rotary brush inside rotating squirrel cage drum

COAT J 22.01.80-FR-001271

(24.07.81) A23n-15

22.01.80 as 001271 (448HM)

Machine is for cleaning shallots ready for packaging and marketing. The machine is of the type which comprises a nominally horizontal, cylindrical drum, made up of spaced, longitudinal rods to form an open work squirrel cage. The cage is rotated on its longitudinal, horizontal axis.

The cage now contains a roller brush rotating on its longitudinal axis which is parallel to the axis of the cage. The brush bristles impinge on the rods of the cage and the surface speed of the brush circumference is different from that of the inside surface of the cage. The brush extends for practically the full length of the cage. The machine is supported on three legs, two spaced symmetrically at one end and the third, in the longitudinal, median plane of the machine. The third leg pref. has an adjustment for height so that the cage axis can be tilted to regulate flow of shallots through the machine.

Harvested bunches of shallots are fed through the machine to separate the husks, destroy rout stock and roots and eliminate the dead, outer skins. Saving of labour costs. The machine eliminates a sequence of labour-intensive, manual tasks. (5pp)

AUBE- ★ D14 64515 D/36 ★FR 2474-282
Rubber beam cutting machine which eliminates waste of double cutting - by cutting only protruding ends of beans held in vertical tubes

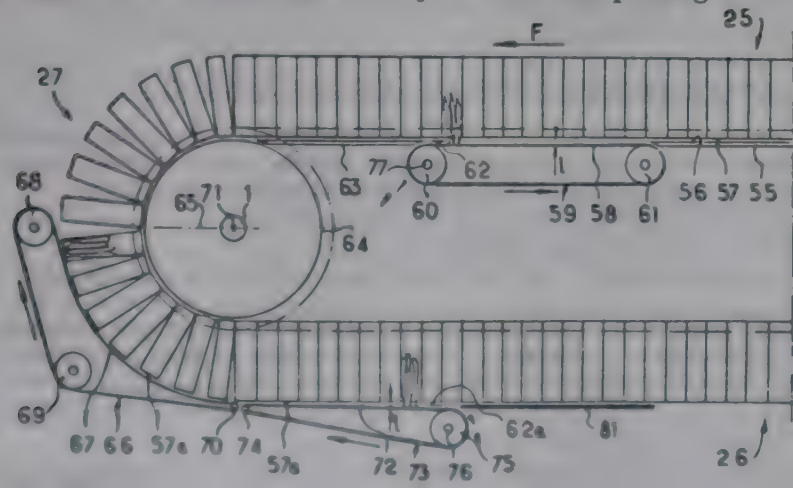
AUBERT & CIE ETS 25.01.80-FR-001693

(31.07.81) A23n-15/12

25.01.80 as 001693 (448DH)

A bean snipping machine for trimming the end stalks from the pods of runner beans. Beans are supported in parallel, pref. upright positions with their lower extremities all resting on a common stop plate. The beans are conveyed horizontally across the cutting edge of a blade spaced above the stop plate by a predetermined distance.

The beans are turned through 180 deg. and allowed to drop so that their second extremities abut on a second stop plate. The beans are then conveyed across a second blade to snip off the remaining tips. The beans are pref. snipped while supported in tubular passages; These passages are open at both ends and form the band of a horizontal conveyor with the passages at right



angles to the direction of conveying.

Pref. all the passages are of the same length which is greater than that of the longest beans. All the passages pref. have the same cross section, esp. square, of which the biggest dimension is shorter than the length of the shortest bean. The stop plates are pref. flat conveyor bands advancing at the same speed as the bean conveyor. (18pp Dwg.No.4)

GEOR- ★ D14 64552 D/36 ★FR 2474-669
Auto control of rotary drum dryer for vegetable prod. - esp. forage regulates drying temp. w.r.t. moisture in final prod.

GEORGES & FILS SA 28.01.80-FR-001822

J08 P15 Q76 (31.07.81) A23n-12/08 A23n-17 A24b-03/04 F26b-21/06 G05d-22/02

28.01.80 as 001822 (448HM)

Process and an installation for automatically controlling a rotary drum dryer used for removing moisture from fresh vegetable prods. are described. The installation is of the type in which the dried prod. is sepd. and fed through a grinder. The drying temp. is now directly related to the moisture content of the final prod. Pref. a moisture content detector is fitted in the grinder discharge passage.

The temp. regulation and the speed of rotation of the drum are continually subject to amendment w.r.t. The powder absorbed by the grinder. The parameter used to determine the grinder power is the measurement of electric current supplied to the grinder. Pref. excess power overrides any downward regulation of dryer temp. and automatically reduces the speed of the dryer to minium.

Controlling a rotary drum dryer for drying veg. prods. such as forage, beetroot pulp and tobacco. Precise control of humidity of final prod. Safety features which include slowing down feed to grinder, maintaining adequate drying temp. and signalling unsatisfactory operation as soon as grinder power rises above set point. (8pp)

TAIN/ ★ D14 64584 D/36 ★GB 2069-806
Appts. usable as thrasher or decorticator - with adjustable pneumatic rollers and removable vibrating thrashing belt

TAINSH J A R 16.01.80-GB-001449

P12 P41 (03.09.81) A01f-12/42 A23n-05 B02b-03

16.01.80 as 001449 (295HM)

Appts. can be used during the year as a decorticator of seeds, grains, berries etc. During the harvest season with the addn. of minor components it can be used as a thresher. Pref. it consists of pairs of staggered pneumatic rollers operating at different speeds. The working gap of successive pairs of rollers is adjustable.

The appts. is versatile and can be used throughout the year. The adjustments of the working gaps enable grain to be fully decorticated or thrashed in one pass vertically downwards through the appts. There is little breakage of the prods. due to the use of resilient pneumatic surfaces. The power consumption of the appts. is low. (7pp)

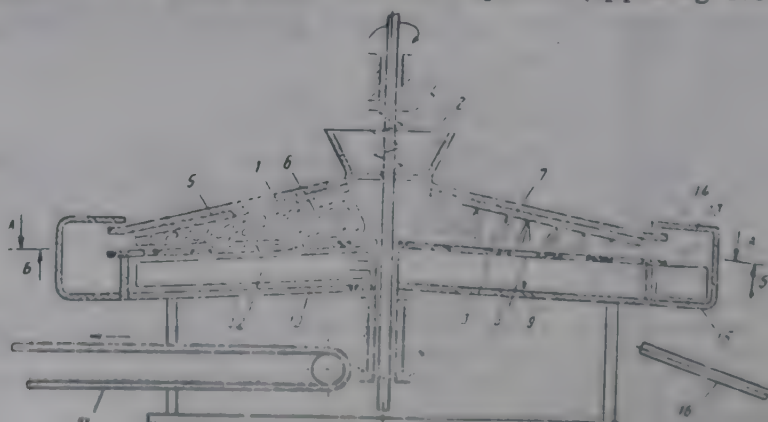
HILL= ★ D14 65405 D/36 ★SU -776-592
Fruit or nuts cleaning machine - has cylindrical body with sloping lid and flexible plates and brushes, and rotating perforated disc to break shells

HILL FARM SUBTROPIC 24.11.78-SU-689092

(07.11.80) A23n-05

24.11.78 as 689092 (29WD)

Machine for cleaning fruit, e.g. of the tung tree, nuts, etc., has cylindrical body which can be rotated (1) with a conical lid, plates (5) and nylon brushes (7), underneath which is a perforated disc (3). The intensity with which the shells of the nuts are broken is increased and the kernels removed, by making the plates flexible, of triangular shape, and have elongated holes which slope relative to the vertical. The holes in the disc (3) also have elongated shape and are distributed 'herringbone'- fashion. The conical lid and perforated disc are placed so that they can rotate in opposite directions and at different speeds. (3pp Dwg. No. 1)



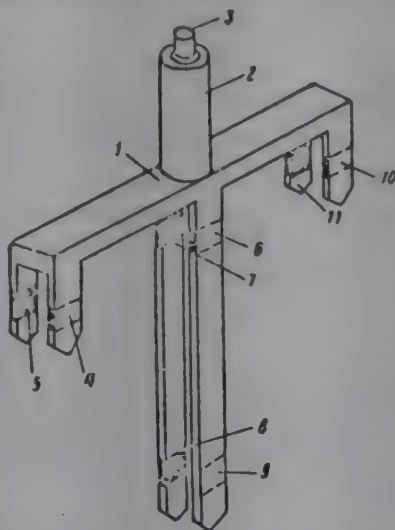
MOMD ★ D14 65559 D/36 ★ SU-787-987
Foodstuffs automatic mixing control monitor - has two-arm lever mounting contact plates in two AC bridges and sensing prod. to record current dependent on non-uniformity of mixing

MOSCOW MEAT DAIRY INST 21.11.78-SU-704271

S03 X25 (17.12.80) G01n-33/12

21.11.78 as 704271 (840GW)

Appts. for monitoring the process of mixing food products esp. sausage-meat with lard, contains sensors, a bridge circuit and an actuation circuit. It has greater accuracy and is used for ascertaining uniform distribution of heterogeneous prod. more widely in e.g. confectionery prodn. Now, a two-arm lever (1) is introduced with the handle (2) and control button (3) and contact plates (4-11) are arranged pairwise on the pillar and arms at different levels. Products with greater viscosity than wine can now be monitored in automatic control of mixing. Bul. 46/15.12.80. (3pp Dwg. No. 1)



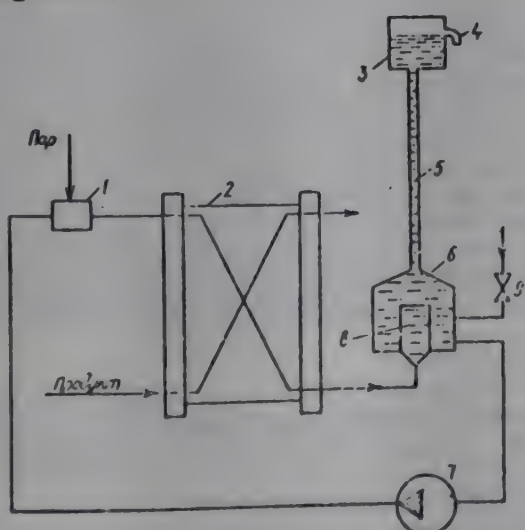
KIFO= ★ D14 65608 D/36 ★ SU-789-101
Pasteuriser for liquid products - has circulation system for water, as heat carrier, with column and equalising tank for degassing of water

KIEV FOOD IND TECHN 26.03.79-SU-742471

(23.12.80) A23c-03/02 A23l-03/16

26.03.79 as 742471 (29WD)

Installation for pasteurisation of liquid products, e.g. beer, milk, etc. has circulation pump (7), steam injector (1), pasteuriser (2), intermediate container (6) and equalising tank (3) with vertical column (5). The process is stabilised, as a result of guaranteeing constant heat-transmission over the duration of the working cycle, by locating the equalising tank (3) above the intermediate container (6) so that the exit end of the column (5) communicates with it. (2pp Dwg. No.1)



RAPO/ ★ D14 65829 D/36 ★ US 4284-359
Agglomerating dry edible particles in steam jets - in chamber with conveyor belt on bottom surface

RAPOLLA T 19.02.80-US-122507

(18.08.81) A23l-01 B01f-03/06

19.02.80 as 122507 (295RH)

A chamber has a conveyor which moves across the lower wall and a pair of steam discharge jets which project from one end wall. Dry, edible ingredients fall from a hopper into a manifold which passes between the steam jets and discharges the ingredients into the jets under the action of pressurised air. The ingredients become agglomerated by the steam and are collected on the conveyor belt.

Pref. liq. flavouring is introduced to the manifold prior to the discharge of the ingredients. Pref. the steam pipes have 1/32 inch

nozzles spaced at 1/4 inch centres.

The system agglomerates a mixt. of edible ingredients in a consistent manner. (5pp)

BOTT/ ★ D14 65831 D/36 ★ US 4284-361

Egg whites whisk - has exposed surface of copper

BOTTS W M 09.05.80-US-148262

X27 (18.08.81) B01f-13

09.05.80 as 148262 (006AT)

Instead of using a Cu bowl for whipping egg whites, the whisk has exposed Cu surfaces, specifically on one or more mixing blades.

Pref. the Cu surface is on the inside of the blades, so as not to contact a mixing bowl and to lessen wear. (4pp)

QUAD- ★ D14 65935 D/36 ★ US 4284-609

Condensn. cleaning of particulate laden gases - by indirect contact heat exchange of humidified streams

QUAD ENVIRONMENT 24.01.79-US-006015 (11.07.77-US-814420)

J01 M24 (18.08.81) B01d-45 B01d-47 C01b-17

24.01.79 as 006015 C.i.p. 4141702 (478HM)

Finely divided particulates (I) are removed from gas streams (furnace emissions, steel or food industry waste gases, or combustion flue gases) as follows: (a) the gas stream is humidified with H₂O; (b) the stream is subjected to indirect contact heat exchange sufficient to lower its temp. to below the dew pt. so that H₂O condenses on the surface of (I) and to provide an energy transfer for condensation of H₂O vapour of at least 5 hp/1000 cfm; (c) condensed H₂O contg. (I) is sepd. from the gas stream; and (d) the gas stream depleted in (I) is recovered.

Heat exchange in step (b) is effected by passing the humidified gas stream downwards through a heat exchange element which has smooth, vertical gas passages of relatively large dimension to cause migration of (I) from the gas stream to the surface of the heat exchange element. This is a cip of US4141702.

Method effectively cools and cleans hot, particulate-laden industrial waste gas streams. (10pp)

SOEP/ ★ D14 66037 D/36 ★ WP 8102-238

Regulation of feedstuff pellet press - involves supplying steam with feedstuff to cascade mixer to reduce power consumption and wear

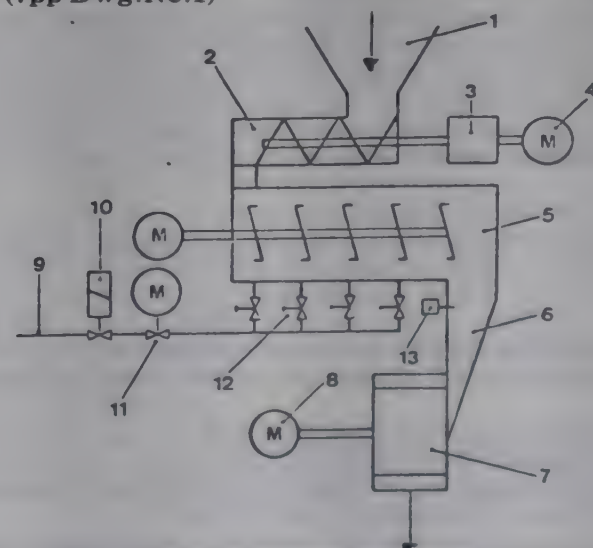
SOE-PEDERSEN A 05.02.80-DK-000480

P12 P71 (20.08.81) A01f-15 B30b-09/30

28.01.81 as DK0010 (958DH) (E) DK-140303 DE1807142 FR2366929 E(AT CH DE FR GB NL SE)

The process for regulating the temp. of a material conducted to a pellet press involves the use of a volume of steam which is admitted to a cascade mixer (5) with the raw material. The raw material e.g. ground feedstuff is transported from a feed receptacle to the mixer via a dosage worm conveyor (2).

The ground feedstuff exits via a discharge funnel (5) into which a temp. sensor (B) is inserted. The quantity of steam admitted to the mixer is dependent on the temp. in the funnel. The load on the press motor (8) will decrease with the rising temp. until a certain temp. is retained irrespectively of changing motor load. A point will be reached where the motor load will rise rapidly as a result of overloading. This overloading is due to an excess of steam which cannot be absorbed by the feed mixture. This causes the mixture to stick to the press rollers causing the motor to overload. (7pp Dwg.No.1)



D15: WATER TREATMENT

ZULU/ ★ D15 D/36 ★BR 8100-781
 Combined biochemical gas capturing, treatment and
 recirculation system - for liquids extracted from solid waste
 ZULAUF W E 05.02.81-BR-000781
 P43 (D16) (11.08.81) B09b-03 B09b-05 C12p-05/02

RUHN/ ★ D15 64268 D/36 ★DE 3004-682
 Domestic and industrial sludge disposal - using wedge type filter
 modules loaded in suction trucks

RUHNKE S 08.02.80-DE-004682 (00.00.76-DE-605924)
 Q42 (27.08.81) C02f-11/12 E03f-07/10
 08.02.80 as 004682 Add to 2605924 (39KB)

The parent patent described a system of converting aq. sludge
 from domestic cesspits or industrial waste basins into a solid
 material by two drying stages. The disposal of industrial and
 domestic sludge is facilitated by transferring it to filter modules,
 assembled in trucks, each filter consisting of e.g. a frame with
 two wedge-type bag filters. The filter modules can also use open-
 pored plastic foam instead of the textile filter cloth.

This reduces the handling operations to a minimum. The large
 available filter area speeds up the dewatering process. (32pp)

CKDD- ★ D15 64341 D/36 ★DE 3046-361
 Full water desalination by preliminary water-softening - using
 weakly acid cation exchanger that is regenerated with
 simultaneous waste water neutralisation (CS 31.3.81)

CKD DUKLA 01.02.80-CS-000672
 (27.08.81) C02f-01/42

09.12.80 as 046361 (200)

In full water desalination with simultaneous neutralisation of
 water from ion exchange regeneration, the water is freed from
 Ca- and Mg-ions, before actual full desalination, in a water-
 softening step. A weakly acidic cation exchanger having -COOH
 functional gps. in Na form is used, opt. combined with a strongly
 acidic cation exchanger having -SO₃H functional gps. in Na form.
 When exhausted, the softening step exchangers are regenerated
 in 2 steps; first with acid waste waters from the full desalination
 plant cation exchange step regeneration, and then with alkaline
 waste waters from the full desalination plant anion exchanger
 step regeneration.

The process is used in feed water conditioning for high-
 pressure tanks. Useful cation exchanger vol. capacity is
 increased. Investment costs for neutralisation are reduced
 because the capacious neutralisation vessels are replaced by a
 cation softening step functioning in the full desalination plant.
 (7pp)

SUDC D15 00188 B/01 =EP G000-130
 Silicate adsorber suitable for treating hard water - is made from
 bentonite and forms complexes with alkaline earth metal ions

SUD-CHEMIE AG 15.06.77-DE-727053

E33 (26.08.81) *DE2727-053 B01d-15/04 C01b-33/30

09.06.78 as 100124 (48WB) (G) FR1221950 FR-767204 GB1104281 GB-
 313522 US2076443 US3326632 E(BE CH FR GB NL SE)

Silicatic complex former (I) for alkaline earth ions having the
 empirical formula

(Me'2O)x (Me''O)Y (Me'''2O3)(SiO2)z

in which Me' is Na and K (the ratio Na2O:K2O being pref. 10 to
 100:1), Me is Mg and Ca (the ratio MgO:CaO being pref. 0.5 to 3:1),
 Me''' is Al and Fe (the ratio Al2O3:Fe2O3 being pref. 3 to 6:1), x is
 1.5 to 6, pref. 3 to 5, Y is 0.2 to 1, pref. 0.3 to 0.5, and Z is 6.2 to 8,
 pref. 7.5 to 8, are produced by loading with alkali a material obtd.
 by acid-activation of a mineral of the montmorillonite-beidellite
 series.

Pref. acid-activated bentonite is used as starting material.
 Pref. (I) is in the form of an aq. suspension contg. 100-200 g/l of
 insol solids. (6pp)

BODE/ D15 82610 C/46 =EP --34-147
 Treating manure with Lactobacillus strain and carbohydrate - to
 give bacterial-free prod. useful as cattle feed, landfill and
 fertiliser

BODENRADER B J 20.04.79-US-031905

C04 (26.08.81) *WP8002-282 C02f-03/34

16.04.80 as 900870 Based on WP8002282 (1248WB) (E) US4018650
 US3546812 US3801499 US3900572 US3961078 E(GB)

Treatment of manure includes (1) inoculating the manure with a
 Lactobacillus strain; and (2) mixing it with a carbohydrate (I) to
 lower the pH of the manure to below 4.5. Industrial waste with a
 BOD value of 200-34000 mg/l (based on fermentable carbohydrate
 present) is treated by inoculating with a Lactobacillus strain and
 maintaining the waste at pH 3.8-4.2.

(I) may be any one of a wide range of materials, but it is pref.
 lactose. Pref. Lactobacillus plantarum is used, and the manure is

kept at 32-5 deg.C for the fermentation. The manure prod.
 contains lactic acid and it is suitably contacted with NH₃ so that
 NH₄ lactate is formed, while the N content of the prod. is
 increased.

The manure becomes environmentally acceptable, stabilised
 and free of coliform and pathogenic bacteria. The prod. obtd. has
 potential food value and fertilising capacity. The protein content
 is increased so the prod. is esp. useful for ruminant feeds. The (I)
 may be provided by mixing the manure with industrial wastes,
 e.g. from breweries, distilleries, farms, poultry and food
 processing plants. These wastes can be separately treated with a
 Lactobacillus strain so that they are more suitable for waste
 disposal. The treated manure may also be used as a landfill.
 (13pp)

ISHH D15 71561 C/40 =EP --34-184
 Bromine recovery from aniline cpd. prodn. effluent - by treating
 with chlorine under alkaline then acid conditions to prevent
 explosion danger

ISHIHARA SANGYO KK (NISC) 05.03.79-JP-025204

E14 (26.08.81) *WP8001-905 C01b-07/09 C02f-01/76 C07c-85/04
 07.09.79 as 901256 Based on WP8001905 (1412PW) (E) J50015797
 US4031194 J52080658 US3401203 E(FR)

Method for recovering bromine from effluent produced in
 production of anilines by ammonolysis of bromobenzene with
 halogen or functional group nucleus-substitution comprises (a)
 addition to the fluid of alkali agent to an amount at least 1.1 (pref.
 1.2-1.5) times (mol.) the amount of bound ammonia; (b) contacting
 with chlorine gas to bring the oxidation reduction potential of the
 fluid to at least 400 (pref. 600-700) mV; (c) filtering and removing
 the precipitate produced; (d) addition, before or after step (c), of
 mineral acid or acidic waste liquid containing mineral acid; and
 (e) causing the fluid to flow down a vertical gas-liquid contact unit
 and contact chlorine gas and simultaneously introducing steam
 and distilling off bromine.

Before the treatment of steps (b)-(e), distillation of fluid
 obtained in step (a) may be effected and at least a portion of the
 ammonia and/or aniline in the fluid distilled off and removed.

Treatment of large quantities of effluent is possible without
 formation of explosive substances, e.g. HCl3. (17pp)

SHEL D15 11468 C/07 #EP --34-222
 Removal of protein from waste water - by addn. of CMC to give
 ppte. useful in animal feeds

SHELL INT RES MIJ BV 21.01.76-GB-002314 (06.02.80-EP-
 200100)

A97 C03 (A11 D13) (26.08.81) *GB1561-132 A23j-01

06.02.80 as 200100 (1248KB) (E) FR2262549 US3842062 2.Jnl.Ref
 E(AT BE CH DE FR IT LU NL SE)

Protein is removed from waste water by addn. of a water-soluble
 CMC (having viscosity in 1% aq. soln. at 25 deg.C of 25-900
 centipoises in a Brookfield viscometer), followed by sepn. of the
 resulting ppte. The water being treated is pref. at pH 4-6, and
 suitably a CMC of 40-400 centipoises viscosity is used at 5-15%
 concn. based on total protein present.

Removal of protein is efficient from industrial effluent waste
 water, e.g. from washing of machinery and floors in animal
 slaughterhouses, and of poultry and meat processing combines
 and from the fish and milk prod. industries. The ppte. is useful as
 animal feed, and environmental problems with effluent are
 avoided. (6pp)

MAUG- ★ D15 64469 D/36 ★FR 2473-836
 Continuous digester to produce methane etc. from manure - uses
 ram to displace manure horizontally through fermentation
 chamber

ETAB MAUGUIN 18.01.80-FR-001264

E17 P11 (24.07.81) A01c-03/02 C12p-05/02

18.01.80 as 001264 (448HM)

A continuous digester is for generating methane etc. from
 fermenting manure. The manure is fed into a fermentation
 chamber through which it is displaced in a horizontal direction.
 Displacement of the manure is pref. effected by a ram which is
 moved horizontally across the open bottom of a feed hopper
 which is kept full of stable litter and/or liq. manure. The ram is
 pref. suspended from a support carriage above the digester so
 that no mechanical linkage is fouled by the manure.

The ram is contoured to close off the bottom of the hopper as it
 displaces manure into the chamber. Pref. the manure has to be
 pushed through a sieve to enter the chamber. This prevents
 backflow of manure as the ram is retracted.

A gas outlet from the digester is pref. fitted with a piston which
 can be displaced to break the crust on top of the fermenting

material.

Prod'n. of methane etc. from manure. No need to liquefy and pump the raw material, so energy input costs are reduced. (4pp)

VIDA/ ★ D15 64480 D/36 ★FR 2474-015
Treating waste water and purifying sludge - for use as agricultural fertiliser, includes irradiation to destroy pathogenic microorganisms

VIDAL P 18.01.80-FR-001267

(24.07.81) C02f-01/30 C02f-11

18.01.80 as 001267 (448HM)

Process is for the cleansing of waste water and the purificn. of sewage sludge etc. for use as agricultural fertiliser. The waste water is irradiated and the sludge is treated by aerobic fermentation followed by grading filling into sacks and then irradiation.

A regulated flow of waste water. Pref. 1 cm deep and moving at 1 metre per second, is pref. subjected to an irradiation of 0.5 megarad from an electron accelerator beaming energy over a field of 1 metre and with a power of 2 meV.

The sludge, which can be mixed with sandust, ground plastic etc., is pref. spread into aerated moulds to ferment at 65 deg.C. for 15 to 25 days. After sifting and grading, the prod. is irradiated, pref. with cobalt 60 caesium 137, to recieve a dose of 0.5 megarad of gamma radiation.

Purifin. of waste water and prodn. of clean, organic fertiliser from sewage sludge etc. The irradiation ensures that all pathogenic micro-organisms are destroyed before the prod. is released. (6pp)

BAUM/ ★ D15 64491 D/36 ★FR 2474-016
Skimmer rotor to recover oil etc. from water surface - has heater to reduce oil viscosity to facilitate collection

BAUMARD A 22.01.80-FR-001334 (25.01.79-FR-001957)

H03 J01 Q42 Q56 (24.07.81) C02f-01/40 E02b-15/04 FQ4b-19/18

22.01.80 as 001334 Add to 7901959 (448NS)

The parent patent described a device for sepg. liqs. partic. for recovering oil which is floating on water. The device uses partly immersed skimmer rotors turning on a horizontal axis. Each rotor is in the form of a pair of truncated cones coaxially joined at their bases.

In the region of the contact zone between skimmer rotor and the liq. to be recovered, the viscosity of the liq. is reduced to facilitate adhesion to the rotor.

The reduction in viscosity is pref. achieved by heating the liq. The heat can be provided by a heater inside skimmer rotor. (4pp)

VAND/ ★ D15 64518 D/36 ★FR 2474-328
Sepn. tank for immiscible liquids with different densities - used esp. for continuous sepn. of oil from waste water, where water outlet can be closed for periodic removal of oil

VANDEVOORDE P 28.01.80-FR-002297

J01 (31.07.81) B01d-17/02 C02f-01/40

28.01.80 as 002297 (1144NS)

A mixt. of liqs. is fed via an inlet pipe into a sepn. tank contg. baffles, so a liq. with the lower density, e.g. oil, floats on a liq. with a higher density, e.g. water. The water then flows via a pipe and partition to an overflow, leaving the oil in the tank. Near the interface between the two liqs. is a pivot carrying a float fitted with a stopper for pipe, so that when the water level drops, the pipe is closed. The oil is then removed from the tank, followed by restarting the sepn. process.

Tank is used e.g. for removing mineral oil, petrol or hydrocarbons from waste water. (9pp)

BAUE- ★ D15 64521 D/36 ★FR 2474-343
Rotary cutter to facilitate pumping of liq. manure contg. straw - has self sharpening sliding contact blades with straight cutting edges (AT 15.3.81)

ROHREN & PUMP BAUER 29.01.80-AT-000473

P11 + P41 (31.07.81) A01c-03 B02c-18/40 C05f-03

28.01.81 as 001917 (448RH)

A rotary cutter for size redn. of fibrous inclusions in a liq. to be pumped, esp. liq. manure contg. a notable proportion of straw etc. The cutter has a stationary casing and a coaxial rotor, each fitted with a straight-edged blade inclined in opposite directions to a plane normal to the axis of rotation. As the rotor turns, the cutting edges slide across each other forming a hyperbolic generatrix at the moving interesction. The hyperbola and rotor are coaxial.

The cutting edges are pref. inclined at an angle of about 60 deg.C. To the plane normal to the axis of rotation. Pref. the number of blades on the rotor is different from the number of blades on the casing. Pref. also each moving blade contacts simulatiously at least two fixed blades. Pref. each moving blade is mounted to slide to and fro longitudinal on its support, centrifugal force holding its cutting edge against at least two points of fixed cutting edges.

The straight edged blades are easy and inexpensive to make, fit, sharpen and replace. Cutting edges slide across each other in point contact, requiring less power than line contact shear blades. The sliding contact produces a self-sharpening effect. (8pp)

HEYER/ ★ D15 64533 D/36 ★FR 2474-474
Installation to purify organic waste from mixed settlement using solar energy to support fermentation producing combustible gas

HEYER R 19.11.79-FR-028664

Q42 (31.07.81) C02f-09 C02f-11/04 E03f-03

19.11.79 as 028664 (448KB)

Installation is for the purificn. of all the organic waste material from a mixed settlement, the waste being fermented to produce methane to heat water etc. While the sludge is employed as an agricultural fertiliser. The installation now uses solar energy collectors of the tubular type to provide heat for aerobic fermentation in the waste collection pipeline network. In the treatment station digesters are employed for an anaerobic fermentation to generate methane gas.

The solar energy collectors pref. comprise black-painted steel tubes behind double glazing with a vacuum between the glass panels and a reflective backing behind the tubes. Each waste collection junction is ventilated with solar-heated air to promote aerobic fermentation. Each waste collection junction pref. has a perforated inclined baffle over which solids are merged into which solids are merged into the liq. fraction for gravity flow.

Used in disposal of waste from a settlement including domestic dwellings, factories and agricultural establishments. (22pp)

ROHM D15 91658 A/51 = GB 1596-913
Deionisation of water streams contg. monovalent and divalent cations - involves use of double layered bed of same ion exchange resin which is thermally regenerated and in different states in each bed

ROHM & HAAS CO 31.05.77-US-802142

(03.09.81) *DE2822-280 B01d-15/04 + C02f-01/42

23.05.78 as 021362 (931AT)

An aq. liq. contg. less than 20 mmol. per l. of dissolved salts contg. mono- and divalent cations in a mole ratio 1:3-3:1, is treated to reduce this concn. by passing the liq. into contact with a thermally regenerably ion exchange resin having a greater affinity for divalent than for nonovalent cations.

The resin has 2 distinct zones of functionality, such that the first zone contacted by the liq. comprises the monovalent cationic resin, and the second comprises the hydrogen ion form of the resin followed by countercurrent regeneration of the resin.

The sizes of the 2 zones are appropriate to the amt. of di- and monovalent cations in the fluid to be treated so that the useful cation exchange capacities of the resins in the zones are exhausted at the same time. The vols. of aq. fluid and regenerant passed in successive loading and regeneration steps are regulated to maintain appropriate sizes of the zones. (8pp)

PASE D15 12204 B/07 = GB 1596-945
Sewage aerator cowl - resting on floats for uniform immersion conditions (NL 5.2.79)

PASSAVANTW MICHELbacher 01.08.77-DE-734629

(03.09.81) *DE2734-629 B01f-03/04 + B01f-07/04

26.05.78 as 023487 (1376AS)

Liquid aerating appts. consists of a surface aerator, and a hood which is vertically adjustable to vary the distance between itself and the liquid surface or its depth of immersion. The distance between at least part of the periphery of the hood and the liquid surface is kept constant.

The peripheral zone is pref. a flexible flap movably mounted on the hood. Efficiency of the hood is constant. (5pp)

MITR D15 62150 A/35 = GB 1597-035
Oil-adsorbent for purifying oil-contg. water - is prepd. by melt-kneading oil-adsorbing inorganic filler and crosslinkable polymer

MITSUBISHI RAYON KK 17.02.77-JP-016462

A97 (03.09.81) *DE2806-851 + C02f-01/28 C09k-03/32

14.02.78 as 005858 (945AS)

Oil adsorbing compsn. for purifying oil-contg. water comprises 5-80 wt.% oil-adsorbing inorganic filler and 95-20 wt.% crosslinked polymer. The compsn. comprises a fine coherent powder, at least partly in a coherent form consisting of granules having highly irregular surface structure.

The polymer is suitably an ethylenic polymer or vulcanised natural or synthetic rubber. The filler is e.g. Mg hydroxide, silicate, phosphate, aluminate, aluminosilicate or oxide, Ca sulphite or oxide, ferrous or ferric (hydr)oxide, Ba sulphate, silica, kaolin, talc, etc.

Used to treat industrial waste water or municipal sewage. Floating oil, suspended dispersed oil, and stably emulsified

dispersed oil can all be completely removed. (10pp)

KLAR- ★ D15 64576 D/36 ★GB 1597-167
Septic tank vessel divided into three chambers - with floating ball to prevent contaminant overspill to effluent chamber
KLARGESTER ENVIENG 29.04.77-GB-017965
(03.09.81) B01d-21

28.04.78 as ----- (295RP)

A sewage treatment plant comprises a settling tank divided by two frusto-conical partitions into upper, intermediate and lower chambers. Raw sewage is delivered into the lower chamber and effluent flows through the partitions successively to the intermediate and upper chambers. The passage of solids from the lower chamber upwardly is prevented. Liquid effluent is removed from the upper chamber.

The first partition has its larger end uppermost and is located in an upper part of the tank. The second partition is arranged the other way up with its large end below the level of the first partition. The small end of the second partition projects upwardly through the lowermost end of the first partitions, and having a closure at its upper end.

The apparatus is an improvement over the apparatus described in 1,297,959 which when influent flow is above normal occasionally passes solids directly from the lower to the upper chambers. (5pp)

ROHM D15 70586 A/39 = GB 1597-283
Selective removal of iron cyanide complex anions from aq. effluent - contg. thiocyanate(s), using a strongly basic acrylic anion exchange resin

ROHM & HAAS CO 07.04.77-US-785475
A91 E31 (03.09.81) *US4115-260 + C02f-01/42

28.03.78 as 011980 (945AS)

Sepr. of iron cyanide complex anions from an aq. fluid also contg. thiocyanate anions comprises contacting the fluid with a strongly basic predominantly acrylic anion exchange resin.

Pref. the resin comprises the quat. ammonium salt of crosslinked N-(dimethylaminopropyl) acrylamide and contains 2-15 wt.% units of polyethylenically unsatd. crosslinking agent. The exhausted resin can be regenerated with 1-25 wt.% NaCl soln.

Used to treat industrial waste streams. Cyanide concn. is generally about 100 ppb., pref. 50-1000 ppm. parts of fluid, and thio cyanate concn. at least 5 wt.% of the iron cyanide complex concn. Adjustment of pH is unnecessary (10pp)

COUR D15 55141 A/31 = GB 1597-342
Clarification of coloured aqueous dye effluent - for reuse in dyeing or other dye-works processes

COURTAULDS LTD 29.03.77-GB-013083
F06 (03.09.81) *BE-865-452 + C02f-01/72

28.03.78 as ----- (965AS)

Clarification of an aq. effluent (I) contg. dyestuff comprises, treating (I) with an oxidising agent (II), and subsequently or simultaneously treating (I) with a metal salt precipitant (III). (I) is either Cl₂ used at pH below 7, O₃ or H₂O₂. Pref. the treatment with (II) is at 25-40 deg.C, and 50-200 (150-500) ppm of (II) are used (based on (I)). Pref. (III) is an Al salt, or alternatively is an Fe salt used with H₂O₂ as both oxidising agent and precipitant. Pref. (I) contains a dye levelling agent, surfactant, dye carrier, dispersant, fixing agent and/or antifoaming agent.

The process can be carried out continuously (4pp)

KUBI ★ D15 64597 D/36 ★GB 2069-858
Belt pressure filter for sludge dewatering - belt speed controlled by thickness of sludge cake in gravity dewatering zone

KUBOTA KK 08.02.80-JP-014970 (30.01.80-JP-009806)
P71 (03.09.81) B30b-09/24 C02f-11/12

28.01.81 as 002586 (295BZ)

A belt pressure filter includes a gravity dewatering zone and a forcible dewatering zone. The filter includes an endless filter belt passing through both zones, material to be processed being delivered to the belt at the gravity dewatering zone. A detector measures the thickness of the deposit on the belt in the gravity dewatering zone and uses the obtd. information to control the belt speed.

The filter may be used for the treatment of a sludge produced in various types of water treatment. The performance of the filter is varied according to change in sludge characteristics to produce sludge cakes of low and constant water content. (21pp)

ITAKE ★ D15 64652 D/36 ★GB 2070-032
Adsorbent material is thermoset resin contg. hydrated ferrite - of titanium, zirconium or tin

TAKEDA YAKUHIN KOGY 11.09.80-JP-126945 (25.02.80-JP-022952)

A81 J01 (03.09.81) C08f-02/44 C08f-283 C08f-75/04

120.02.81 as 006361 (+ 30.5.80-JP-072947) (1302HM)

Ti, Zr or Sn with 10-300 wt.% of a thermosetting resin resistant to acids and alkalies and curing the mixture. The ferrite can be premixed with a hydrated oxide of Ti, Zr, Sn or Fe.

The adsorbent comprises hydrated zirconium ferrite and hydrated zirconium oxide with 20-100 wt.% unsatd. polyester or polyurethane resin. The aq. soln. of NaOH and Na₃PO₄ produced by regeneration is treated with more NaOH to ppte. Na₃PO₄; the supernatant NaOH soln. can then be used to regenerate the adsorbent.

Used for removing anions or cations from aq. soln., partic. phosphate ions which cause eutrophication in lakes and inland seas. The adsorbent can be repeatedly regenerated, e.g. with NaOH, and can be magnetically sepd. from liqs.. (14pp)

EURO- ★ D15 64691 D/36 ★GB 2070-146
Pumping apparatus for collecting polluted liquids - is effective for removing light oils from the surface of water

EUROTECH INT LTD 19.02.81-GB-005252 (22.02.80-GB-006149)

H03 J01 Q42 Q56 (03.09.81) E02b-15/04 F04c-01/02 F04d-29/04
19.02.81 as 005252 (1345NS)

Apparatus for collecting polluted liquids such as oil on water includes a first pumping stage consisting of a rotatable annular rotor having curved blades shaped to draw liquid inwardly towards the centre of rotation. Stationary blades are positioned within the rotor blades to receive liquid into the spacers between them.

A further pumping stage has rotatable blades shaped to accept the liquid from the stationary blades and deliver it under pressure in an upward direction to an outlet. The pumping apparatus is preferably mounted on a flotation unit which is suitable for collection of oil from the surface of the water. (13pp)

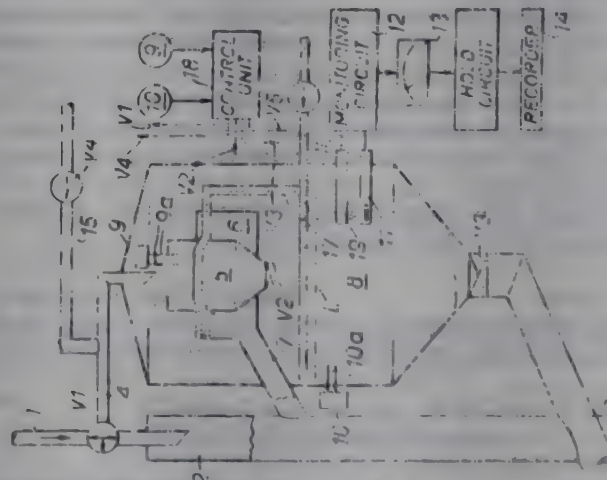
PART- ★ D15 64701 D/36 ★GB 2070-238
Monitoring solids content of conc. liq. sludge - by removing sample and diluting by known ratio before measurement

PARTECH ELTRNS LTD 16.02.81-GB-004815 (23.02.80-GB-006196)

S03 (03.09.81) G01n-15/06
16.02.81 as 004815 (295HM)

Sample is removed from a liq. sewage conduit and fills a metering chamber. When this is full it is discharged into a dilution chamber. The metering chamber is thoroughly washed together with its conduits and the waste enters the dilution chamber until this holds a predetermined depth of liq.. A sensor then measures the solids concn. in the dilution chamber.

Finally the contents of the dilution chamber is returned to the sewage conduit. During operation of the sampling appts., any overflow from the metering chamber is returned directly to the sewage conduit. The apparatus measures the solids concentration of a concentrated liquid sewage. Dilution of the sewage prior to measurement and the use of wash sprays prevents the apparatus including its sensors from becoming blocked by accumulated concentrated sewage. (7pp Dwg.No.1)



NIPC ★ D15 64721 D/36 ★J5 6033-081
Treating effluent from grouting process - involves treatment with slaked lime slurry before adding coagulant and introducing carbon dioxide

NIPPON CHEM IND KK 27.08.79-JP-108195
L02 (03.04.81) C02f-01/52

27.08.79 as 108195 (34DH)

In the treatment of effluent containing Na silicate and earth and soil etc., resulted from grouting process esp. with water glass grout, the improvement comprises (a) adding milky Ca(OH)₂ slurry to the effluent adjusted at a predetermined flow rate as stable as possible in reaction vessel to cause the reaction between the total amt. of silicic ion (sic) and colloidal silica etc. and C at pH of greater than 11.5.

for pref. 30 mins.

The effluent thus treated is transferred to settling vessel (5) at which coagulant, e.g. basic polyaluminium chloride, Al sulphate, polyacrylamide hydrolysate etc. is added to cause flocculation sedimentation and solid liquid separation. CO₂ gas is introduced from liquified CO₂ tank (10) into the separated water to carry out neutralisation whilst if necessary concentrating the separated sludge in sludge concentration vessel (6) followed by dewatering in dewatering apparatus, so that silicic ion concentration of the effluent is below 50 ppm. (5pp)

SUMO ★ D15 64775 D/36 ★ J5 6088-407
High molecular wt. water-soluble polymer prodn. - by polymerisation of (meth)acrylamide, (meth)acrylic acid, and/or (meth)acrylate etc. in presence of ethylene di:amine
SUMITOMO CHEMICAL KK 20.12.79-JP-166704
A14 F09 (17.07.81) C08f-02/44 C08f-20/06
20.12.79 as 166704 (83NS)

Method comprises polymerising (meth)acrylamide, (meth)acrylic acid, (meth)acrylate and/or dialkylaminoalkyl (meth)acrylate salt or quat. salt in aq. soln. at a monomer concn. of at least 30 wt.% in the presence of 0.05 to 0.5 pbw ethylenediamine per 100 pbw of the monomer, at starting temp. of 0 to 30 deg. C and final temp. of at least 70 deg. C. The catalyst is pref. redox system. Since the soln. becomes jelly-like mass as the polymerisation proceeds, the reaction vessel should pref. be designed to allow efficient cooling. After polymerisation, the resulting jelly is pref. cut into pieces and dried by drum dryer, fluidising dryer, etc.

Prod. is used as paper additive, thickening agent, polymeric coagulant in waste water treatment, etc. Ethylene diamine prevents undesirable side reactions at high monomer concn. such as crosslinking, branching, imide formation, etc. (5pp)

EBAR ★ D15 65023 D/36 ★ J5 6089-805
Sedimentation tank equipment - for precipitating impurities e.g. sludge from dirty water
EBARA MFG KK 25.12.79-JP-168548
J01 (21.07.81) B01d-21/02 C02f-01/24
25.12.79 as 168548 (26AT)

Equipment for pptg. impurities e.g. sludge from dirty water comprises a sedimentation tank, carrier movable above the tank, sludge scraper for scraping pptd. sludge, etc. Equipment installation space is reduced to improve the working efficiency.

The novelty is that a liq. solid separator is attached to the carrier. A sludge pumping-up structure is located in the sludge pit to pump up to this separator sludge collected into the pit located in the middle bottom of the tank. Screen collecting pumps are disposed at the surface of the water in the tank. (4pp)

TSUH ★ D15 65025 D/36 ★ J5 6089-809
Dewatering unit for endless filter belt - uses an upward slope for initial gravity dewatering before lower belt passes into roller nip
TSUKISHIMA KIKAI KK 22.12.79-JP-166302
J01 P71 (21.07.81) B01d-33/04 B30b-09/24
22.12.79 as 166302 (26BZ)

A device is claimed for dewatering filter cake formed between a pair of an upper and lower endless dewatering belts held with upper and lower rollers to form a gravitational dewatering zone, pressured dewatering zone, and squeezed dewatering zone arranged in this order from the inlet of the device to the outlet. It is used for dewatering sludge after treating waste and dirty water in a filter. The object is to increase the treatment amt. and reduce the final cake water content.

The novelty is that the filter cloth stretched across the lower belt is sloped up from the start end of the gravitational dewatering zone to the last end. The raw water level at inlet is equal to the water level at the start end of the pressured zone. (5pp)

TSUH ★ D15 65026 D/36 ★ J5 6089-810
Appts. for dewatering filter cake - has lower filter cloth held horizontal with rollers in pressurised dewatering zone while upper filter cloth is inclined
TSUKISHIMA KIKAI KK 22.12.79-JP-166303
J01 P71 (21.07.81) B01d-33/04 B30b-09/24
22.12.79 as 166303 (26AS)

Device is claimed for dewatering filter cake formed between a pair of upper and lower dewatering conveyors held with upper and lower rollers to form dewatering zones, including a pressured dewatering zone. Each belt comprises a filter cloth for filtering raw sludge fed to the inlet of the device.

Improvement is that the lower filter cloth is held approx. horizontally with the rollers in the pressured dewatering zone, while the upper filter cloth is gradually lowered (sloped down) away from the start end of this zone so that the angle between both filter cloths, i.e. the belts is gradually or stepwise decreased

in profile.

Filtering rate is increased and cake water content reduced. (4pp)

HITK ★ D15 65027 D/36 ★ J5 6089-811
Belt type dewatering unit - in which filtrate from press zone and shear zone returned to upper belt after washing
HITACHI METAL KK 24.12.79-JP-167874
J01 P71 (21.07.81) B01d-33/04 B30b-09/24
24.12.79 as 167874 (26AS)

Method is claimed for purifying the filtrate drained from a belt type dewatering unit for dewatering filter cake fed from a filter for filtering dirty or waste water. The dewatering unit comprises a pair of dewatering belts turnably held with rollers to form a press zone for pressing the cake between filter cloths stretched across the belts and a shear zone for squeezing the cake by rollers arranged to form a meandering passage of the belts.

Improvement is that the filtrate from the press zone and following shear zone is returned to the upper belt just after it is washed. Concn. of suspended solids in the filtrate is lowered. (3pp)

SHIF ★ D15 65028 D/36 ★ J5 6089-812
Water filtration appts. - comprising rotatable horizontal screen drum with wedge wires attached to outer surface for scooping up suspended solids

SHINMEIWA IND KK 24.12.79-JP-169081
J01 (21.07.81) B01d-33/18
24.12.79 as 169081 (26DJ)

A device is claimed for filtering off suspended solids in dirty or waste water after coarse filtration. It comprises a horizontal screen drum rotatably disposed in a tank having a solids drain port provided with scraper for scraping sludge deposited over the drum and water drain port. The object is to increase the effective filtering area of the drum and the filtering efficiency.

Wedge wires are attached to the outer side surface of the drum to form a corrugated surface so that the suspended solids are effectively scooped up with the edge wires during forcible rotation of the drum. (4pp)

EBAR- ★ D15 65029 D/36 ★ J5 6089-813
Appts. for dewatering sand, sludge cake etc. - includes vibrating structure for belt

EBARA KOKI KK 25.12.79-JP-168553
J01 (21.07.81) B01d-33/32
25.12.79 as 168553 (26AS)

Device is claimed for dewatering sand, sludge cake, or other suspended solids in waste or dirty water, during carrying such solids on a dewatering belt conveyer having a conveyer belt carried on rollers and belt supports.

Improvement is that a vibrating structure is provided for vibrating and impacting the belt. The belt may be made of filter cloth and stretched between driving and drive wheels of the belt. The vibrating structure comprises support rollers in contact with the back side of the belt.

Suspended solids etc. are dewatered without using a vacuum. (4pp)

MISK ★ D15 65030 D/36 ★ J5 6089-814
Rotary drum type filter for liq. filtration - is continuously coated with a powder e.g. diatomaceous earth, which acts as a filter medium

MITSUBISHI KAKOKI KAISHA 22.12.79-JP-166318
J01 (21.07.81) B01d-33/08 B01d-37/02
22.12.79 as 166318 (26NS)

Device (I) is for continuously filtering a liq. e.g. dirty water. (I) comprises a vacuum rotary horizontal drum, half immersed in the liq. contained in a tank. The surface of the drum is precoated with a powder such as diatomaceous earth and then used for filtering the liq. A precoat layer is formed continuously over the surface of the drum. The tank is partitioned into two sections: one for precoating the powder and the other for filtering the liq. (5pp)

SHIM/ ★ D15 65042 D/36 ★ J5 6089-826
Water tank stirrer - with water suction tube supported by vertical rods erected from base with rotary vertical shaft

SHIMURA S 24.12.79-JP-166841
J02 (21.07.81) B01f-07/24 C02f-03/16
24.12.79 as 166841 (26AS)

Device is claimed for stirring water in a water tank or pool, esp. for mixing a very small amt. of agglomerant with the water. Improvement is that a water suction tube is supported by vertical rods erected from a base having a rotary vertical shaft at the center. A motor is connected to the vertical shaft, on which a spiral blade is mounted along the length of shaft, so that rotation of the shaft causes the suction tube having a central opening at the upper end to suck the water through this opening and allows

the water to flow down and away from the shaft.

Water is effectively stirred. (6pp)

NIDE ★ D15 65066 D/36 ★ J5 6089-893
Decomposition of organic matter in waste water - by adjusting pH, adding hydrogen peroxide soln. and contacting with magnetic iron oxide

NIPPON ELECTRIC KK 20.12.79-JP-166208

(21.07.81) C02f-01/72

20.12.79 as 166208 (34HM)

Organic matter contained in waste water is effectively decomposed by oxidn. by adjusting the pH to 2-5, adding H₂O₂ soln., and contacting with magnetic iron oxide, e.g. magnetite, gamma-Fe₂O₃ and Ni-or Mn-contg. ferrite etc. The magnetic iron oxide catalyses the oxidn. reaction and is recovered easily after completion of the oxidn.

In an example, 5 l of waste liquor contg. 100 mg/l of Methylene blue was adjusted to pH 3, after which H₂O₂ soln. was added in amt. 100 mg/l, followed by adding 50 g of powdered magnetite of granular size 0.08 microns and stirring for 2 hrs. The decomposing rate was 92% and the decolourisation rate was 99.5%. The decomposing rate was 1% and the decolourisation rate was 8% in the absence of magnetite powder. (2pp)

TORN ★ D15 65067 D/36 ★ J5 6089-894
Water used for washing electronic components purificn. - by removing hydrogen fluoride ion by ion exchange or reverse osmosis

TORAY ENG KK(NREN) 21.12.79-JP-166589

L03 (21.07.81) C02f-01/72 C02f-09

21.12.79 as 166589 (34AT)

Washing effluent used in the washing of electronic components, esp. IC wafer etc., contg. HF, inorg. salts, MeOH and halogenated hydrocarbons etc. is effectively and economically purified by first removing at least HF by ion exchange or reverse osmosis without any increase in salt concn.; adjusting its pH to 8-3; next irradiating with ultraviolet rays using a UV lamp (2,000-3,650 angstroms, esp. 2,537 angstroms) in the presence of H₂O₂, the amt. of which is 2-3 times the total oxygen demand to decompose completely by oxidn. MeOH and the halogenated hydrocarbons etc. Corrosion and distortion of the UV lamp is prevented by previous removal of HF, and redn. in the oxidn. decompsn. rate is prevented. It is finally contacted with activated charcoal to remove by decompsn. surplus H₂O₂. (4pp)

CHIY ★ D15 65068 D/36 ★ J5 6089-897
Foamed plastics granules - used in aerobic or anaerobic biological water treatment

CHIYODA CHEM ENG CO 22.12.79-JP-166313

A88 (21.07.81) C02f-03/10 C08j-09/04

22.12.79 as 166313 (34DJ)

Foamed plastics granules having apparent S.G. of 1.2-0.2 is suitable for use in (an)aerobic biological treatment of waters as carrier for microorganisms, filler for filtration of floating solids and as filler for oil coalescer etc.

The foamed plastic granules comprise 1-80 pts. wt. of inorganic matters having S.G. of greater than 2 e.g. CaCO₃, talc, BaSO₄, SiO₂, Al₂O₃ and TiO₂ etc. and 100 wt. pts. of a synthetic resin base material, e.g. polypropylene, polyethylene and polystyrene etc. The foamation degree is less than 5 (1.5-3) times the vol. of the mixt. comprising the inorganic material and the synthetic resin base material. The granular size of the foamed plastics granules is usually 1-5 mm as the microorganisms carrier, 0.5-5 mm in filtration, and 3-20 mm as the filler for oil coalescer etc. By addn. of the inorganic matters, the surfaces of the foamed granules become coarse and are improved in hydrophilic property etc. (7pp)

TAKG ★ D15 65069 D/36 ★ J5 6089-900
Agent for dewatering sludge - obtd. by graft polymerising carbonised saw dust with water soluble vinyl monomer e.g. di:methyl:amino:ethyl acrylate

TAKIKAGAKU KK 20.12.79-JP-167128

A88 (21.07.81) B01d-21/* C02f-11/14

20.12.79 as 167128 (34BZ)

A novel water treating agent is esp. suitable for use as dewatering agent for sludge without affecting any damage or dewaterability of sludge cake. The water treating agent is obtd. by graft-polymerising saw dust or chaff with a water-soluble vinyl monomer, e.g. dimethylamino ethyl(meta) acrylate, tern or quaternary salts thereof, acrylic acid, methacrylic acid, acrylamide etc. In the graft-polymerisation, the saw dust or chaff may be used in carbonised state. The graft-polymerisation proceeds smoothly by allowing the (carbonized) saw dust or chaff to stand in admixture with the water-soluble vinyl monomer. (4pp)

NITL D15 00661 B/01 = J8 1033-964
Sealing a joint in a porous support pipe - which is part of a membrane separator used e.g. for treatment of waste water

NITTO ELECTRIC IND KK 22.04.77-JP-047255

J01 (07.08.81) *J53131-981 B01d-13

22.04.77 as 047255 (25HM)

Structure is claimed for sealing a joint of a porous support pipe, whose inner face is covered with a tubular membrane and a hole of a head at each end of the pipe assembled in a tubular membrane separator for sepg. a liq. such as waste water through the membrane using reverse osmosis or ultrafiltration method. The object is to provide an effective seal without increasing the pressure loss of the pipe.

The novelty is that a packing has a sleeve closely contacted with the inner wall of the tubular membrane and flange closely contacted with the inner wall of the hole of the head. An annular V- or J-shaped groove is formed at the front of the flange, thus forming a self-seal lip. (J53131981) (4pp)

MOCH/ ★ D15 65308 D/36 ★ J8 1033-971
Liq. filter - comprising closed vessel with openings for replenishing and removing filter medium (J5 27.6.78)

MOCHIZUKI T 08.12.76-JP-148070

J01 P41 (07.08.81) B01d-23/24 B01d-29/38 B02b-01/04 B02c-19

08.12.76 as 148070 (26BZ)

A device is claimed for filtering a liquid such as waste water. It comprises a closed vessel contg. a filtering medium, medium return opening and medium drain opening of the vessel. Both openings are connected through a pipe, to which a washing liquid jet pipe is connected to wash the medium. (J53072367) (4pp)

ASAH D15 23961 A/13 = J8 1033-975
Tubular ultrafiltration membrane prepn. - by uniformly dispersing powdered activated carbon into structure of microporous acrylonitrile polymer objects

ASAHI CHEMICAL IND KK 17.06.74-JP-068138

A88 J01 (A14 D17) (07.08.81) *J50159-875 + B01d-31 B01d-39
17.06.74 as 068138 (38BZ)

A tubular ultrafiltration membrane having complex functions is prepd. by uniformly dispersing powdered activated carbon into structures of microporous objects made of acrylonitrile polymers. The membrane has a high water permeation rate and a narrow pore size distribution. (J50159875) (11pp)

HAGI/ ★ D15 65310 D/36 ★ J8 1033-976
Liq. filter, e.g. for pond - comprising encased rear and front screens stretched across water intake (J5 9.2.78)

HAGIWARA T 27.07.76-JP-089368

J01 (07.08.81) B01d-35/02

27.07.76 as 089368 (26DJ)

A device is claimed for filtering a liq. such as water in a pond, etc. It is to be located in a water intake gutter and comprises a case, rear and front screens stretched across a liq. flow passage formed in the case. (J53014466) (4pp)

FUJF ★ D15 65313 D/36 ★ J8 1033-996
Treating waste photographic soln. contg. silver halide - and organic acid, comprises adding divalent metal ion, sepg. solids and concentrating soln. obtd. J5 9.9.75)

FUJI PHOTO FILM KK 22.02.74-JP-021272

G06 (07.08.81) C02f-01/04

22.02.74 as 021272 (83NS)

Method comprises adding divalent metal ions (I) to waste photographic soln. contg. silver halide and organic acid, separating solid formed, and concentrating the soln.

(I) is e.g. Ca, Ba, Mg, Fe, etc., and is used pref. at concn. of 2 to 15 wt.%. (J50114862) (2pp)

MITO D15 63573 Y/36 = J8 1033-997
Removing heavy metal ions from waste water - by contacting with activated ferrite

MITSUBISHI HEAVY IND KK 16.01.76-JP-003153

E31 (07.08.81) *J52087-860 + B01j-20/06 C02f-01/28

16.01.76 as 003153 (34AT)

Heavy metal ions, e.g. Hg, Pb, Cd, As and Cu ions or their complex ions are removed (even when present in very small amts. e.g. 1-10ppm) from a waste water by (i) contacting it with an activated ferrite, e.g. prepd. by adjusting a ferrous salt soln. to pH 8-12 to form Fe(OH)₂ and adding a nitrite, the amt. of which is almost the same as that of the metal ion present to ferritilise the Fe(OH)₂ or by adjusting a mixed soln. of a ferrous salt and a ferric salt (where the molar ratio Fe²⁺/Fe³⁺ is 1/1-1/2, at a pH of 8-9) and (ii) subsequently contacting activated ferrite with a strong acid having pH less than 2, e.g. HCl to desorb the heavy metal ions. (J52087860) (3pp)

OSAG D15 11871 Y/07 = J8 1033-998
 Removing toxic material from coke oven gas liquor - by addn. of ferric chloride, powdered coal and/or coke and adding coagulant polymer

OSAKA GAS KK 21.06.75-JP-076315

H09 J01 (07.08.81) *J52000-067 + C02f-01/56

21.06.75 as 076315 (34DJ)

A liquor contg. phenol, ammonia, cyanide and other harmful components, and resulting from washing and cooling a coke-oven gas with water, and which has been treated with activated sludge has FeCl_3 and powdered coal and/or coke added to it. A coagulant polymer (such as an anionic polymer) is added to the resulting liquor at a pH of 4 to 6.5.

COD, total cyanide content and colouring materials are effectively removed from the liquor. (J52000067) (2pp)

KURK D15 20224 A/11 = J8 1033-999
 Treating fluorine- and boron-contg. aq. effluent - by adding aluminium salt; agitating and adding base to form aluminium hydroxide flocs for sepn. as sludge

KURITA WATER IND KK 15.07.76-JP-084118

E36 (07.08.81) *J53010-553 + C02f-01/58

15.07.76 as 084118 (34RH)

Fluorine is effectively removed from aq. effluent contg. B by first adding an Al salt, e.g. $\text{Al}_2(\text{SO}_4)_3$ as more than 10 pts. wt. per 1 pt. wt. at pH less than 4 and 40-80 deg. C. Soln. is agitated for more than 2 hrs. and a base, e.g. NaOH, KOH, $\text{Ca}(\text{OH})_2$ etc. is added to adjust the pH to 6-8 to form flocs of $\text{Al}(\text{OH})_3$ which is then sepd. as a sludge.

A Ca salt (opt. in combination with a polymer coagulant) may be added to the effluent to remove free F_2 . (J53010553) (4pp)

MOCH/ D15 26321 C/15 = J8 1034-122
 Appts. for washing filter elements used in water treatment - using pressurised water spray, with recycle of used water after filtering

MOCHIZUKI H 24.08.78-JP-103418

J01 (08.08.81) *J55028-784 B01d-23/24

24.08.78 as 103418 (26NS)

An appts. for washing filter elements charged in a tank or sands is provided. The object is to avoid clogging of the elements or sand beds for filtering dirty water.

A jet nozzle for spraying water under pressure into a connecting pipe is connected to it. The pipe communicating with a strainer located in a lower space of the tank through a valve connected to a bottom hole of the tank is connected to a separator for sepg. the water from the filter elements, which are drawn from the tank when the valve is opened. In this washing process, the elements are washed by the water under pressure and returned to the tank through the separator. (J55028784) (3pp)

ASAH D15 04536 B/03 = J8 1034-128
 Poly:aryl ether sulphone semipermeable membrane - cast from polar organic solvent contg. electrolyte

ASAH KASEI KOGYO K 08.07.77-JP-080913

A88 J01 (A26) (08.08.81) *GB2000-720 B01d-13 C08j-05/18

08.07.77 as 080913 (1302AT)

A semi-permeable membrane is formed of a polyaryl ether sulphone having repeating units $\text{Ar}'\text{-O-Ar}_2\text{-SO}_2$ where Ar' and Ar_2 are each phenylene or biphenylene (bonded through different rings) and can be substd. by 1-4C alkyl or alkoxy or Cl or Br. The membrane has a contact angle of its surface to water of at most 65 deg.

Such a membrane is prepd. by shaping into a membrane a casting soln. contg. a polar organic soln. of the polyether sulphone and an aq. soln. of an electrolyte. The membrane is contacted with a liq. miscible with the polar organic solvent, but a non-solvent for the polyether sulphone to coagulate it.

The polyaryl ether sulphones have good resistance to heat and chemicals but are not easily wetted. The use of the electrolyte during casting increases the wettability and hence water permeability of the membrane, which is used in water purificn. (J54016378) (4pp)

KANF D15 49692 B/27 = J8 1034-130
 Volatile material sepn. from aq. soln. using porous membrane - e.g. ammonia sepn. from ammonium chloride soln. into aq. sulphate soln.

KANEGAFUCHI CHEM KK 31.10.77-JP-131026

J01 (08.08.81) *J54064-084 B01d-13 + C02f-01/44

31.10.77 as 131026 (35NS)

Waste water, such as ammonium chloride soln., is set on one side of a porous membrane, such as a Teflon membrane, having a pore dia. of 0.5 microns and a thickness of 100 microns, and an absorbing liq. such as aq. sulphate soln., is set on the other side of the porous membrane, volatile material, such as ammonia, permeates through the porous membrane into the absorbing liq. to separate out ammonium sulphate. The absorbing liq. is then

set at a higher temp. than the waste water to balance the water pressure.

The volatile material may be sepd. and recovered from its aq. soln. on an industrial scale. (J54064084) (2pp)

NITL D15 83290 C/47 = J8 1034-183
 Washing process for selectively permeable membrane - used in ultrafiltration of waste soln. from e.g. cheese mfr. plant, using aq. oxidising or reducing agent soln.

NITTO ELECTRIC IND KK 28.03.79-JP-037601

E37 (08.08.81) *J55129-107 B01d-13

28.03.79 as 037601 (51KB)

In a selectively permeable membrane used for treatment of a soln. contg. an aluminous substance to purify it, the improvement comprises washing the membrane with an aq. soln. of an oxidising agent or a reducing agent when contamination index of the membrane surface (represented by formula of chemical oxygen demand (PPm) and distn. residue (PPm)) is increased to greater than 0.3.

The oxidising agent is chlorine, Na hypochlorite, Na chlorite, hydrogen peroxide, ozone or Na percarbonate. The reducing agent is hydrogen iodide, hydrogen sulphide, Al hydride, CO, Na sulphide, Na thiosulphate, formaldehyde or acetoaldehyde. (J55129107) (4pp)

NITL D15 20135 D/12 = J8 1034-135
 Washing ball circulator in tubular membrane separator - ensuring that returned balls are caught without reducing liq. flow

NITTO ELECTRIC IND KK 29.06.79-JP-083308

J01 (08.08.81) *J56007-607 B01d-13

29.06.79 as 083308 (26DJ)

A device for circulating washing small balls in a tubular membrane separator for separating a liquid such as waste waters in the reverse osmotic, ultrafiltration or precision filtration is new. The object is to catch returned balls from the separator, without reducing the flow rate of the liquid passing through the device. The raw liquid is fed into the separator through the device and drained through it. The balls flow in the same passage as the liquid but caught by the device.

The novelty is in the structure as follows. A rotary core is disposed in a closed casing having inlet and outlet ports connected to the ball and liq common flow passage. The core has recesses for receiving the balls and rotated to return them to the supply port side from the return side and there are clearances between the core and casing to allow the liquid to pass through. (J56007607) (4pp)

NITL D15 35285 D/20 = J8 1034-136
 Cylindrical membrane sepn. module - comprising an outer cylinder with several water permeable nonwoven fabric cylinders bound tightly together

NITTO ELECTRIC IND KK 20.08.79-JP-106171

J01 (08.08.81) *J56031-406 B01d-13

20.08.79 as 106171 (55DJ)

A cylindrical membrane sepn module is claimed, which consists of an outer cylinder and several water permeable nonwoven fabric cylinders bounded tightly together and inserted in the said outer cylinder.

Those cylinders are almost as long as the outer cylinder and a permeable membrane is formed on an inner surface of each nonwoven fabric cylinder. At the both ends of the said cylinder, a casting synthetic resin is introduced and solidified in the outer void between the said nonwoven fabric cylinders and thus practically those nonwoven fabric cylinders have a contact area where they are contacted with the outside cylinder only via the outer surface layer. Even in this contact area, within the layers of the nonwoven fabric of the nonwoven fabric cylinders, a passage where the permeated liq flows is formed along the axis of the cylinder, and the said nonwoven fabric cylinder and the permeable membrane are covered with the said resin at the open end(s) (i.e both ends).

Most useful for ultrafiltration or precise filtration etc for treatment under relatively low pressure (J56031406) (4pp)

OHTA/ D15 34420 B/18 = J8 1034-140
 Membrane sepn. appts. for treating waste liq. - includes perforated stainless steel tubes, fibrous mat, perforated polypropylene film and reinforcing discs

OHTA J 03.09.77-JP-105993

A88 J01 (08.08.81) *J54039-386 B01d-13

03.09.77 as 105993 (47HM)

Appts for filtering waste liquid by the use of an osmotic membrane comprises a tube including an inner perforated tube surmounting the inner tube and formed from a thinwalled stainless steel sheet. The perforations of the outer tube are smaller in dia than those of the inner tube. A fibrous mat is applied to the surface of the outer tube, and a perforated polypropylene film covers the fibrous tube layer. A number of

axially spaced reinforcing discs are inserted into the inner tube.

The tube assembly is placed within a sealed casing to which a waste liquid is introduced under pressure so that pure water passes through the fibrous tube layer into the tube and is then recovered through one end of the tube. (J54039386) (3pp)

TAPR- D15 50417 C/29 = J8 1034-141
Reverse osmosis desalination plant - has pressure exchanger between high pressure processor and low pressure spaces
TAPROGGE REINIGUN 16.12.78-DE-854418
Q56 (08.08.81) *GB2037-612 B01d-13

12.12.79 as 160441 (RH)
A stream of concentrate is bled from a high pressure processor into a low pressure space and at the same time a stream of untreated water is returned from a low pressure space to the high pressure processor. Inside the high pressure processor the untreated water undergoes conversion to concentrate, and permeate may be drawn off from the high pressure processor.

A set of power driven cell compartments are continuously circulated between the high pressure processor and the above two low pressure spaces. The compartments are connected as they pass around a path inside a housing between the low pressure spaces and the high pressure processor untreated water being released and concentrated being picked up. The compartments also communicate with the low pressure spaces to release concentrate and take up untreated water. (J55081704) (11pp)

YAMA/ ★ D15 65320 D/36 ★ J8 1034-144
Filter press for filtering waste water, etc. - has filter cloths between filter plates with side bars, and conveyor attached to side bar (J4 16.10.74)
YAMAZAKI Y 26.00.73-JP-003038
J01 (08.08.81) B01d-25/12

26.12.72 as 003038 /73 (26KB)
A device for filtering waste water, etc., comprises filtering cloths, each interposed between flat filter plates supported with side bars, and a conveyor attached at one of the side bars to move each filter plate when opening and closing the filter press. (J49108669) (3pp)

HIEJ D15 53277 B/29 = J8 1034-160
Purifying zinc-contg. waste water - by successive addn. of aluminium salt and alkali metal carbonate
HITACHI PLANT ENG CONST 16.11.77-JP-138361
E33 M25 (08.08.81) *J54070-644 + C02f-01/62
16.11.77 as 138361 (34NS)
Zn is accurately and effectively removed by pptn from waste water by (a) adding Al salt, e.g. Al₂(SO₄)₃ followed by agitation, and (b) adding alkali metal carbonate, e.g. Na₂CO₃ to adjust the pH to 8-9, esp 8.6.

Use of the alkali metal carbonate facilitates pH adjustment. The Al salt is effectively co-precipitated with a reaction prod of alkali metal carbonate and Zn thereby the coprecipitating effect is elevated. (J54070644) (3pp)

ASAH D15 86784 A/48 = J8 1034-161
Mfr. of chelate ion exchange resin used as heavy metal adsorbent - by reacting water-soluble aromatic vinyl polymer with imino-di-carboxylic acid alkyl ester and hydrolysing ester gp.
ASAHI CHEMICAL IND KK 01.04.77-JP-036119
A91 J01 (08.08.81) *J53121-897 C08f-08/12 + B01j-15

01.04.77 as 036119 (165AT)
Chelate type ion exchange resins are prep'd by reacting water-insol. cross (sic) copolymer (I) with haloalkyl gp. with iminodicarboxylic acid alkyl ester (II) soln to introduce ester gp into the cross(sic) copolymer and then hydrolysing the so introduced ester gp.

(I) are the homo- or co-polymers obtd by polymerising 1 or more of styrene, methylstyrene, vinyl toluene, etc or copolymerisation of halomethylated vinyl monomers. (II) is ethyl iminodacetate, used in an amt of 0.6 mol to introduce 40-51% halomethyl. Polymerisation temp is 60 deg C and reaction time is 8-30 hrs.

The resins are suitable as a adsorbents of heavy metal ions dissolved in waste liq. (J53121897) (6pp)

KANF D15 51906 X/27 = J8 1034-322
Ultrafiltration membrane separator - with increased effective diffusion area
KANEGAFUCHI CHEM KK 11.12.73-JP-140901
J01 (10.08.81) *US3965-012 B01d-13 B01d-31
11.12.73 as 140901 (AT)

A membrane separator, esp. for ultrafiltration, includes a stacked membrane unit comprising a continuous composite membrane folded flatly in zig-zag relation to form attacked layers defining a series of flow channels in alternation

interleaving pockets, the membrane having a flexible support, spacers alternately overlying layers of the membrane only along one end to seal the layers and provide a serpentine opening to the inner flow channels.

The system provides a cheap, replaceable unit, not sensitive to plugging by slime and with a larger effective diffusion area than prior art devices using tubes, etc. (J50089275) (6pp)

DAIL D15 44786 X/24 = J8 1034-324
Semipermeable membrane decontamination - by treatment with strong acid to remove scale

DAISEL LTD 25.10.74-JP-123541

J01 (10.08.81) *J51049-180 B01d-13

25.10.74 as 123541 (KB)

Strong acidic liq. (inorganic acid or organic acid) with pH 3-1 is passed through a semipermeable membrane with reduced membrane sepn. prop. at flow rate 0.1-1 m/sec. for 1-10 mins.

Used to treat e.g. cellulose acetate semipermeable membranes for ultra filtration, reverse osmosis, etc. applied to concentration, purification, desalting, etc. The membranes with Ca or Mg scale may be treated. (J51049180) (3pp)

KOBM ★ D15 65329 D/36 ★ J8 1034-325
Osmotic separator device - where separator pipes are connected in series to form meandering liq. flow passage in casing, forming separate module (J5 8.9.76)

KOBE STEEL KK 05.03.75-JP-027452

J01 (10.08.81) B01d-13

05.03.75 as 027452 (26RH)

Device is claimed for turning back osmotic separator pipes connected in series to form a meandering liq. flow passage in a casing to form a separator module. The device comprises a holder for holding two pipes at their ends and a cap fitted into one end opening of the holder. (J51101791) (6pp)

MITN D15 48833 A/27 = J8 1034-330
Cleaning a non-electrically charged membrane - using hydrazine, hydrogen peroxide and surfactant

MITSUBISHI GAS CHEM IND 11.11.76-JP-134646

A97 E19 J01 P43 (E37 J03 X25) (10.08.81) *J53060-380 B01d-13

11.11.76 as 134646 (42KB)

The uncharged membrane (I) is cleaned by treatment with hydrazine (II) and hydrogen peroxide (III) or (III) generating cpds. (IV) in the presence of surfactant (V). The surface of (I) is cleaned by the removal of material deposited on the surface without damage. Examples of (I) are membranes for dialysis, reverse osmosis, ultra-filtration and electrolysis diaphragms. (I) is soaked in the soln. contg. (II), (III) or (VI) and (V), at 0-50 deg. C.

Pref. (II) is hydrated hydrazine, hydrazine hydrochloride or hydrazine sulphate; (IV) is peroxy carbonate, peroxy-borate, organic peroxy salt or hydrogenperoxide-treated cpd. of peroxy borate, borate or carbonate. (V) is anionic-, nonionic- or amphoteric surfactant such as alkyl benzene sulphonate, sodium higher alcohol sulphate, polyoxy ethylene alkyl ether, polyethylene glycol fatty acid ester, alkyl pyridinium hydrochloride, etc., and the concns. of (II), (III) or (IV) and (V) are 0.01-5 wt.%, 0.5-2 mol/l and 0.05-5 wt.%, respectively. (J53060380) (6pp)

SUME ★ D15 65330 D/36 ★ J8 1034-333
Electrolyte soln. ion dialyser - includes relative pressure structure in one cell J5 26.2.75)

SUMITOMO ELEC IND KK 09.06.73-JP-064359

J01 (10.08.81) B01d-13/02

09.06.73 as 064359 (26DH)

Device is claimed for separating an electrolytic solution into water and electrolyte. It comprises a tank, one or more pairs of porous membranes and electrodes vertically disposed in the tank to partition it into two or more cells, and a relative pressure structure disposed in one of the cells. (J50018360) (4pp)

NIKK- ★ D15 65331 D/36 ★ J8 1034-334
Appts. for sepg. solvent from gas - including adsorbing column contg. resin and circulating system for liq. recycle (J4 15.11.74)

NIKKISO KK 19.03.73-JP-031587

J01 (10.08.81) B01d-53/34 C02f-01/04

19.03.73 as 031587 (26DJ)

A device is claimed for adsorbing a solvent etc. contained in a gas, contg. a resin having a high b. pt. It comprises an adsorbing liq. feeder connected to an adsorbing column and a circulating system for partly taking out the liq. to be filtered and cooled and then returning to the column. (J49119869) (5pp)

OMUK-★ D15 65333 D/36 ★ J8 1034-340
 Prodn. appts. for high alkali concn. potable water - uses tap water as feed, has cathode chamber formed inside anode chamber (J4 15.2.74)

OMUKOKK 10.06.72-JP-057900
 (10.08.81) A231-02 B01j-19/08 C02f-01/46
 10.06.72 as 057900 (26NS)

Appts. produces drinking water having a high alkali ion conc. from usual tap water. It comprises a pot, anode chamber formed in the pot, and cathode chamber formed in a cup inserted in the anode chamber. (J49017042) (4pp)

OKAZ/ D15 71633 Y/40 = J8 1034-341
 Electrolytic cell with water tank sectioned into cells - has discharge pipe electrically isolated from tank

OKAZKIT 19.02.76-JP-017313
 J03 (10.08.81) *J52101-672 + A231-02 B01j-19/08 C02f-01/46
 19.02.76 as 017313 (26NJ)

An electrically isolated structure suitable for the electrolysis of water has a water tank radially sectioned by separators to form several cells, into which water is poured in turn through a discharge pipe rotating around a shaft extending through the centre of the tank. A magnetic valve is disposed through the bottom of each cell. The top end edge is covered with a cover so that the inside walls of each separator are not wetted by water poured from the pipe. When the water is poured over the cover, the valves of the cells walled by the separator with the associated cover are closed. When the water is poured into one cell, its valve is opened to flow the water down into a lower tank.

The pipe is electrically isolated from the lower tank, since the inside walls of the separators are not wetted by the water. (J52101672) (4pp)

MITG D15 89347 X/48 = J8 1034-357
 Mercury removal from waste water - using mixt. of zinc with other metal(s)

MITSUI MINING & SMELTING 03.12.73-JP-136380
 J01 M25 (10.08.81) *J50085-571 + C02f-01/62 C22b-43
 03.12.73 as 136380 (DJ)

Hg dissolved in waste waters is removed by contacting the waste water with a mixt. contg. Zn and at least 1 other metals such as Mg, Cu, Fe, Ni and Sn. This method is a simple, effective 1-stage process. The Hg concn. in the water is decreased to less than or equal to 0.001 ppm.

In an example, a water contg. 0.1% NaCl, 1 ppm Hg was passed through a column (dia. 16, length 250 mm) packed with a mixt. contg. 40 g Zn Fibre and approx. equal vol. of Mg turnings at 20-30 ml/min. The Hg concn. in the eluate was decreased to 0.001 ppm. (J50085571) (3pp)

MITG D15 89348 X/48 = J8 1034-358
 Mercury removal from waste water - using mixt. of lead with other metal(s) or carbon

MITSUI MINING & SMELTING 03.12.73-JP-136381
 J01 M25 (10.08.81) *J50085-572 + C02f-01/62 C22b-43
 03.12.73 as 136381 (DH)

Hg dissolved in waste water is removed by contacting the waste water with a mixt. contg. Pb and more than 1 other metal or elements, e.g. Mg, Al, Zn, Fe, Ni, Cu, Sn, Sb, Agor C. This method effectively decreases the concn. of Hg from the waste water to less than 0.0005 ppm.

In an example, water (pH 3.0) contg. 0.1% NaCl and 1 ppm Hg was passed through a column (dia. 26, length 250 mm) packed with a mixt. contg. 50 g Pb fibres and about equal portion of Mg turnings at 30-50 ml/min. The concn. of Hg in the eluate was less than 0.0005 ppm. (J50085572) (4pp)

JAOR ★ D15 65336 D/36 ★ J8 1034-360
 Organic sludge treatment - comprising addn. of coagulant to form floc, addn. of water, agitation and dewatering (J5 28.5.75)

JAPAN ORGANO KK 05.10.73-JP-111518
 (10.08.81) C02f-11/14

05.10.73 as 111518 (83HM)
 Method comprises (a) adding organic coagulant (I) to organic sludge (II) to form floc; (b) adding 5-30 pbw water to the mixt. per 100 pbw of (II); (c) agitating the mixt. to reduce stickiness of the floc; and (d) dewatering the floc. Useful for treating municipal waste water. (J50062173) (3pp)

HITD D15 26383 A/14 = J8 1034-636
 Copper ion separation from metal rinsing soln. - by introducing soln. to deionisation chamber of electrodialysis tank and contacting with anionic exchange resin

HITACHI CABLE KK 09.08.76-JP-094678
 M14 (11.08.81) *J53019-931 C23g-01/36
 09.08.76 as 094678 (15BZ)

Regenerating waste water, e.g. used water in metal rinsing, is

claimed in which the waste water is introduced in a deionisation chamber of electrodialysis tank and the waste water contacted with an anionic exchange resin.

A Cu wire is crude rinsed and finish rinsed using two electrodialysis tanks and storage tanks contg. different concn. of Cu ion solns. having different pH numbers. A sulphuric acid soln. is used for the crude rinsing step and the finishing rinsing step of the Cu wire. The storage tank contains the finishing rinsing water having 200 ppm of Cu ion concn. and it is used for rinsing the Cu wire to raise Cu ion concn. from 200 ppm to 300 ppm. An anionic exchange resin is fitted in parallel to the electrodialysis tank having a deionisation chamber. The used finishing rinsing soln. is contacted with the anionic exchange resin, is regenerated and discharged into rivers.

Process is effective for removing Cu ion from waste water. (J53019931) (3pp)

STAM ★ D15 65355 D/36 ★ NL 8000-300
 Biological purificn. of waste water contg. nitrogen cpds. - using oxygen acceptor pre-neutralised with calcium carbonate or active slurry

STAMICARBON BV 17.01.80-NL-000300
 (17.08.81) C02f-03/28

17.01.80 as 000300 (510DH)

In the biological purification of waste water contg. N cpds. in oxidised form, where the purification conditions are such that denitrification occurs, using an oxygen acceptor with pH less than 6, the oxygen acceptor is neutralised with CaCO₃ or an active slurry contg. CaCO₃ before it is added to the waste water to be denitrified.

The oxygen acceptor is esp. an aq. soln. of at least one 1-8C carboxylic acid; these acids have the advantage of being biologically degradable. The pH of the oxygen acceptor is esp. less than 4 (less than 3) and neutralisation is pref. to pH 4-6 (4-5). CaCO₃ is esp. used as marl. The active slurry is pref. from a settling or concn. basin in which the purified waste water is sepd. from the slurry.

Acid waste streams can be used as oxygen acceptor, without addn. of extra Ca(OH)₂ to raise the pH. A smaller amt. of active slurry is produced. (10pp)

PETE/ ★ D15 65357 D/36 ★ NL 8000-395
 Swimming pool chlorinator injector - has housing with outlet bore contg. externally operable piston to remove calcium deposit from outlet

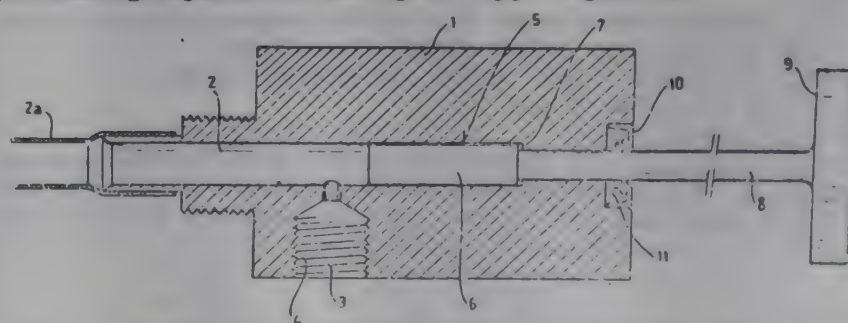
PETERS WE U 22.01.80-NL-000395
 A88 Q46 (17.08.81) E04h-03/20

22.01.80 as 000395 (1190DH)

The arrangement is used for adding a chlorine-contg. liquid in the form of a calcium-based bleaching agent to the water in a swimming pool. It comprises a housing(1) having a bore(5) with an inlet(3) connection(4) and an outlet(2) connected (2a) to the pool.

The bore has the same dia. as the outlet end of the housing and contains a piston(6) which can be operated from outside to move axially in the bore to remove the calcium deposit forming therein.

The calcium deposit forming in the outlet bore of the injection housing when using a soln. of a calcium-based chlorine-contg. bleaching agent can be removed without access to the bore, thus preventing exposure to this agent. (6pp Dwg.No.1)



CASO- ★ D15 65360 D/36 ★ NL 8000-503
 Modified vegetable protein crosslinkable to synthetic material - esp. heat-hardening, partic. for buttons and ion exchanger

CASOLITH BV 25.01.80-NL-000503

A11 P23 (A91 D17) (17.08.81) A44b-01/02 B01j-39/16 B01j-41/12
 C07g-07 C08h-01/02

25.01.80 as 000503 (510HM)

Protein material which can be crosslinked to a synthetic, esp. a heat-hardening synthetic material, is a material obtd. by chemical and/or physical modification of a basic plant protein. The basic protein may be obtd. from, e.g. potatoes, wheat, soya or maize, and may be recovered by heat coagulation, pH change, freeze-drying, reversed osmosis, ultra-filtration or addn. of salts, water-sol. organic cpds. or enzymes. The protein is then modified to reduce the mol. wt. esp. to about half, by breakdown with an

acid, an alkali and/or an oxidising agent, e.g. NaOH + hydrogen peroxide. The hydrophobic/hydrophilic balance is then changed by introduction of polar or apolar gps., e.g. acid gps. which can form ionic structures with polyvalent ions.

Prodn. of buttons and of ion-exchangers is claimed. The range of raw materials for prodn. of synthetics is extended. Economical recovery of protein from waste water in the potato starch industry solves environmental contamination problems. (8pp)

JOHN- ★ D15 D/36 ★ SE 8000-430
Aerating water - using turbines on arm fitted to floating body

JOHNSON CONSTRUCTIO 18.01.80-SE-000430

(17.08.81) B01f-03/04 C02f-01/74

18.01.80 as 000430 (1161WB)

Aeration of water involves use of at least one turbine supported on a pivoting arm and circulating around the arm swivel axis. The arm is fitted on a floating body in the water with its major part under the water surface. The arm is pliable vertically and rigid horizontally. It has lifting shackles.

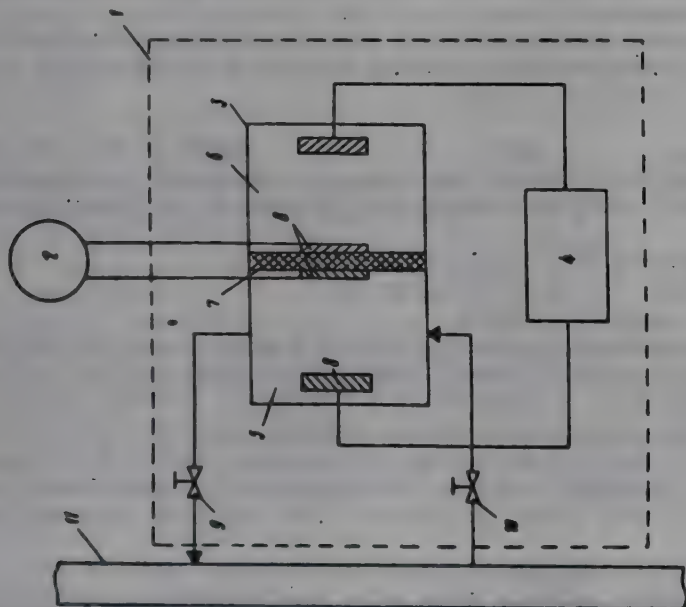
UFAP ★ D15 65563 D/36 ★ SU-787-991
Automatic water prepn. hardness salts determ. - has recorder measuring voltage drop across cation exchange membrane as cations migrate from one chamber to another under electric field

UFA PETROLEUM INST 18.09.78-SU-666938

J04 S03 (15.12.80) G01n-33/18

18.09.78 as 666938 (840GW)

Appts. for automatic determ. of salts causing hardness in water contains a recorder (2), sensor and current supply. It has greater accuracy for use in water-prepn. plant automation. Now, the sensor (1) is a two-chamber electrolytic cell (3) supplied from a current stabiliser (4). The chambers (5,6) are divided by a cation-exchange membrane mounting inert electrodes (8). The sensor is joined by the unions (9,10) to a pipe (11). Error no longer arises owing to a granulated layer of ionite. Bul. 46/15.12.80. (2pp Dwg. No. 1)



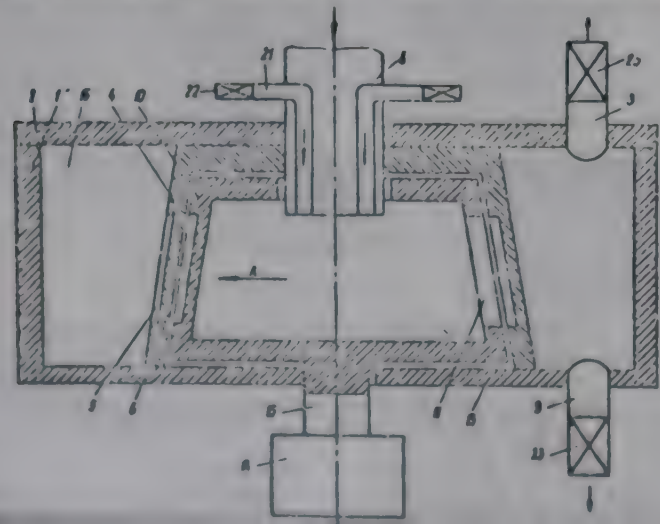
MOSK ★ D15 65648 D/36 ★ SU-789-147
Acoustic oscillator for liquids - has rounded edges of holes in rotor and stator and angling and set width ratio of holes

MOSCOW CHEM EQUIP INST 27.07.77-SU-513000

J02 (26.12.80) B01f-07/28

22.07.77 as 513000 (132VE)

The oscillator used with flowing liquid media in food, petroleum, chemical etc. industries comprises a casing with inlet (8,21) and outlet (3,9) pipes and, concentric, a rotor (10) and a stator 4 with



lateral holes (11,5) in them, and a drive. To increase the oscillation intensity, the front and rear edges of the rotor and the stator holes respectively are rounded, while the stator holes are at an acute angle to the rotor holes, the rotor:stator hole width ratio being 1.2-10.

The rounding reduces the flow rotation hydraulic resistance, so that the velocity vector in the holes is directed along their axes with corresponding increase in flow volume. Labyrinth channels (7,12) accelerate passage between the rotor and the stator, with acoustic cavitation increased by a factor of 2-3. Bul.47/23.12.80. (5pp Dwg.No.1)

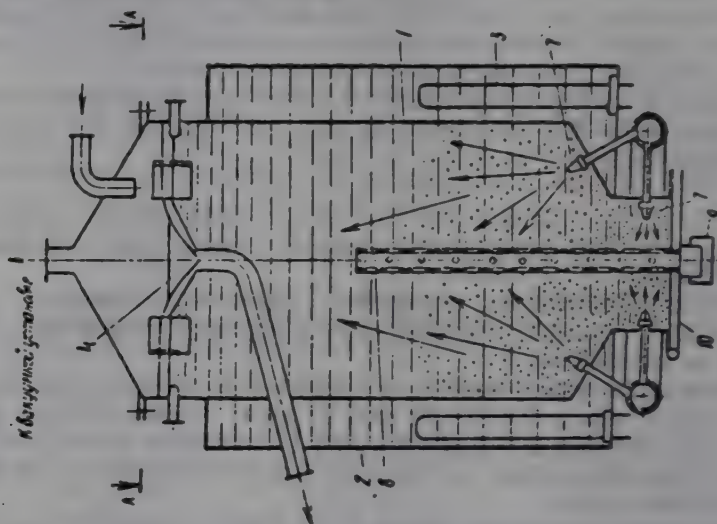
ASTR = ★ D15 65760 D/36 ★ SU-789-397
Separator for three/phase mixtures - has bubbler, and heated jacket with turbuliser jets level with plates collecting soil from mixt.

ASTRAKHAN MIN RIVER 01.12.78-SU-685735

H03 (23.12.80) C02f-01

01.11.78 as 685735 (132VE)

The separator, useful in cleaning oil contaminated coast, comprises a casing 1, a turbuliser 6 for water containing oil, a set of spiral plates 5, and a discharge funnel (4). To separate the oil from soil and increase the discharge efficiency, a bubbler (7) with a vertical perforated pipe (8) at the bottom of it, supplements a jacket (2) with heating elements (3), and the turbuliser jets are level with the plates. (3pp Dwg.No.1)



BHEA = ★ D15 65761 D/36 ★ SU-789-398
Heat treatment set for solutions - has multistage evaporator linked to dryer and surface heat exchanger between gas heater and distillate cooling exchanger

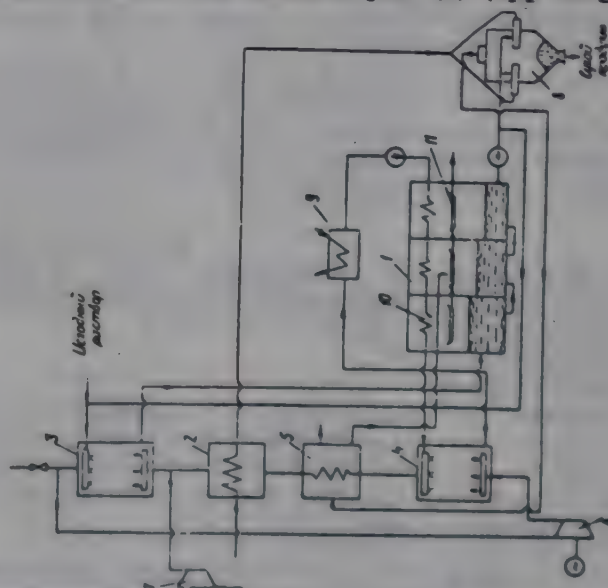
BELO HEAT MASS EXCH(ODRI) 26.09.78-SU-666765

J01 (23.12.80) C02f-01/04

26.09.78 as 666765 (132VE)

The set comprises a multistage evaporator (1), a dryer (8) and in succession a gas heater (2), a warm-up heat exchanger (3), a distillate cooling exchanger (4), and a gas blower (6).

To separate the distillate from the vapour-gas mixture, a surface heat exchanger (5) is fitted between parts (2) and (4) and linked to part (1). Part (1) is linked to part (8). (3pp Dwg. No. 1)



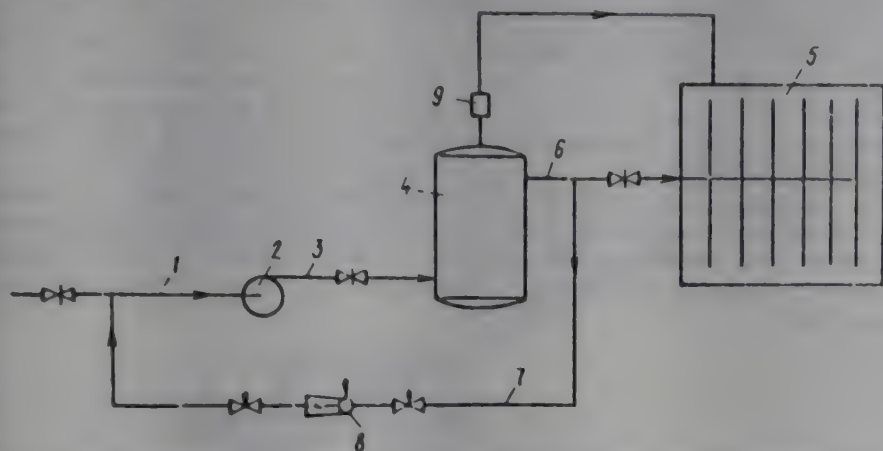
URAL = ★ D15 65762 D/36 ★ SU-789-399
Compression type liq. effluent flotation unit - has interconnect. flotation chamber and ejector beyond saturator

URALENERGOTSVETMET 31.01.79-SU-750328

(23.12.80) C02f-01/24

The flotator comprises a saturator (4) linked by piping to a flotation chamber (5), an ejector (8) and a pump (2). To increase reliability and economy the pipe (7) linking part (8) is connected to that linking part (5).

The liquid fed continuously and uniformly into pump 2 with air from pipe (7) provides an emulsion for the saturator where the air becomes dissolved in the water. Most of the saturated water, via pipe (6), enters chamber (5); the remainder reaches the ejector where a constant-density liquid phase sets up a constant pressure reduction. This constancy enables the total air volume to be maximised the undissolved air leaving air vent 9. Bul.47/23.12.80. (2pp Dwg.No.1)



AZEN = ★ D15 65763 D/36 ★ SU-789-403
Flotation appts. for purifcn. of effluents contg. petroleum prods.
- employs settling chamber and pressure hydraulic cyclone with
water-jet pump for air supply as prepn. unit

AZERB ENG CON INST 13.09.78-SU-664075

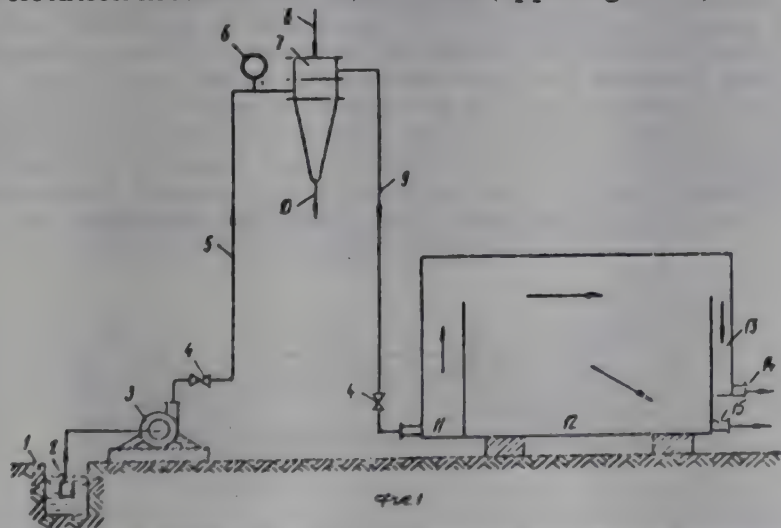
H05 P41 (25.12.80) B04c-05/10 C02f-01/38

13.09.78 as 664075 (135GW)

Simplified construction of the installation for purifcn. of effluents contg. petroleum prods. is ensured by the following features of the design of the prepn. unit of the appts. It consists of pressure hydraulic cyclone (7) fed with the effluent from ditch (1) by centrifugal pump (3) with inlet valve (2), control valve (4) and manometer (6).

The turbulent stream of liquid in the cyclone ejects some heavy particles of contaminants as well as creates the effect of a water-pump which supplies air through air-intake nozzle (8). Air-water mix passes through pipeline (9) with valve (4) into flotation chamber (11) from which the liquid phase flows into settling chamber (12) with discharge nozzle (15) for purified water, while the foam passes to compartment (13) collecting the petroleum prods. and the foam which are discharged by outlet nozzle (14).

The described installation requires an area 10-20 times smaller than the conventional installation for purifcn. of effluents by froth flotation method. Bul.47/23.12.80. (4pp Dwg.No. 1)



MORU = ★ D15 65764 D/36 ★ SU-789-405
Electrochemical unit for ion-exchanger regeneration soln.
purifcn. - has supplementary intermediate electrode with
magnetic mixer and magnetic spheres in cathode

MOSC RURAL CONS RES 13.09.78-SU-663021

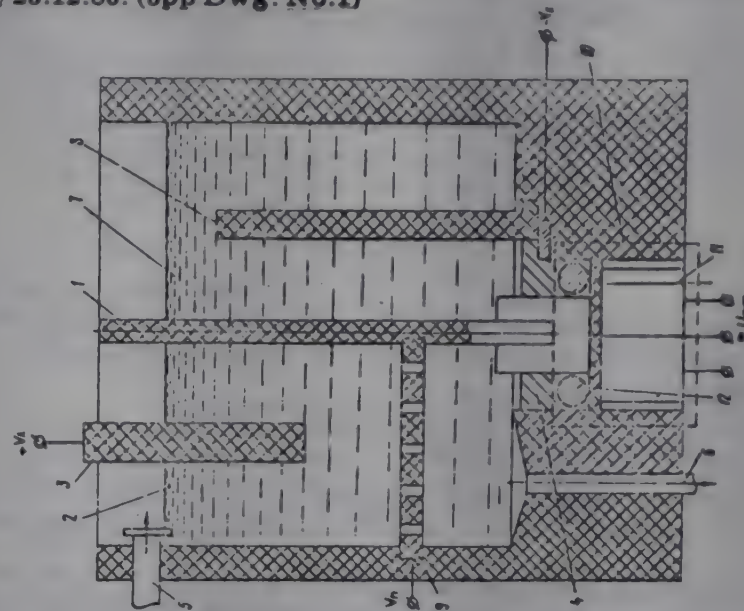
J03 X25 (25.12.80) C02f-01/46

13.09.78 as 663021 (132VE)

The cleaner comprises a container with an annular mercury cathode (4), a partition providing the electrolysis chamber (2) with an insoluble anode (3), and an amalgam dissociation chamber (7) with an electrode (8) linked to the cathode. To accelerate cleaning, a supplementary electrode (9) between parts (3) and (4) is fitted with a magnetic mixer (10) made as an electromagnet (11) and spheres (12) of magnetic material in the

cathode.

The electrode (9) comprises a perforated electrically conducting membrane of inert insoluble material. Its potential is maintained slightly in excess of the zinc and iron sepn. voltage but below the sepn. potential of the least electronegative alkaline earth metal. Thus a sludge of metal hydroxides and copper powder deposits on electrode (9). The spheres (12) of 0.01-0.02 friction coefft. increase the current yield, through decrease in the partial decomposition of the amalgam in the chamber (2). Bul.47/23.12.80. (3pp Dwg. No.1)



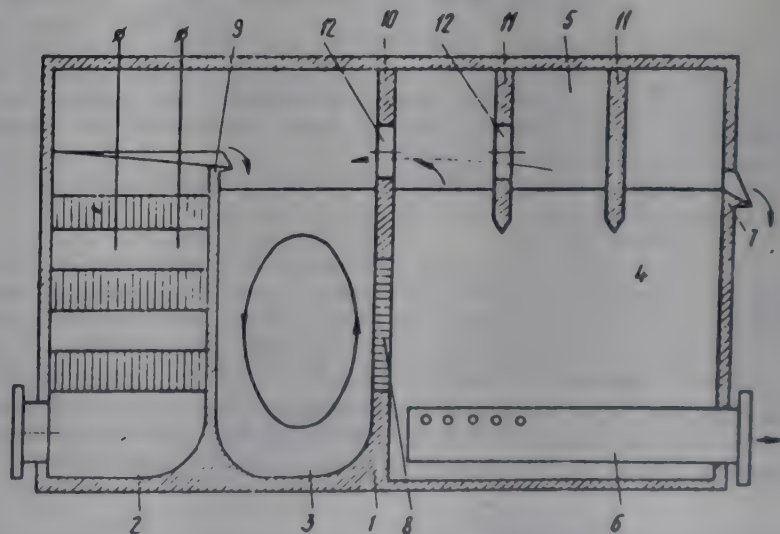
LENI ★ D15 65765 D/36 ★ SU-789-407
Electrocoagulator for organic impurities in liquid effluent - has
mixer which also receives foam flocculant returned from foam
trap

LENINGRAD LENSOVET TECH(LEEN=) 20.11.78-SU-685457

X25 (25.12.80) B01d-17/06 C02f-01/46

20.11.78 as 685457 (132VE)

The electrocoagulator comprises an electrochemical cell (2), a flotation settler (4) and a collector (5) for colloidal foam and deposits with a foam trap (11). To increase performance, a mixer (3) between parts (2) and (4) has end-partitions and, incorporating a free overflow (9) and a stabiliser (8) holes for returning the foam flocculant from part (4) to part (3). Typically, 60cu.m/h of effluent containing albumen 0.28, ester-soluble matter 0.45, suspended colloid particles 0.99 g/l is reduced to 0.038, 0.012 and 0.08g/l respectively in conformity with the drug-industry regulations. Casing (1), collector (6), channel (7) and partition (10) complete the assembly. Bul.47/23.12.80. (3pp Dwg. No.1)



SUGA = ★ D15 65766 D/36 ★ SU-789-408
Electrolytic cleaner for effluent - has spaced water removal
pipes and electrodes with cleaning wires and float for periodic
cleaning and reduction

SUGAR IND RES INST 16.04.79-SU-764439

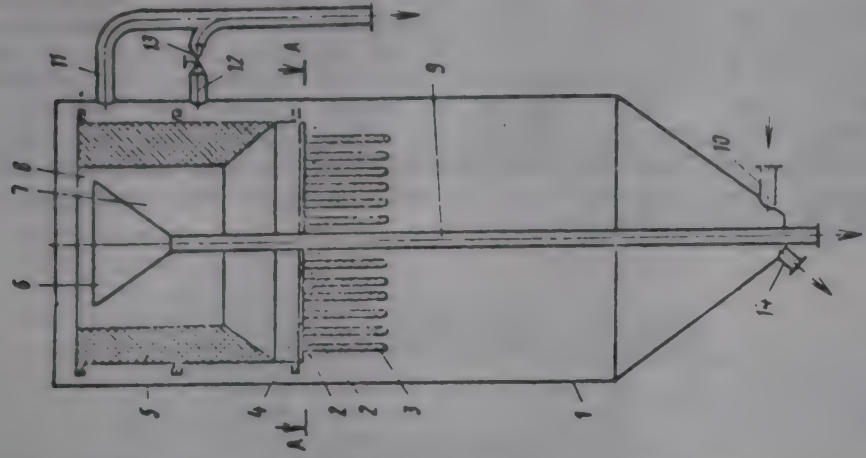
X25 (27.12.80) B01d-35/06 C02f-01/46

16.04.79 as 764438 (132GW)

The cleaner comprises a casing (1) with a set of reciprocating plate-type electrodes (3) with a divider, and water feed (10) and removal (11,12) pipes. To reduce power consumption and to increase efficiency, a hollow float (5) houses a funnel (6) fixed to the casing, while also supporting an electrode holder, the electrodes being located vertical in looped wires (2) fixed to the casing walls.

Pref., the pipes (11,12) are one electrode length apart and the

pipe (12) has a cut-off. Bul.47/23.12.80. (4pp Dwg.No.1)

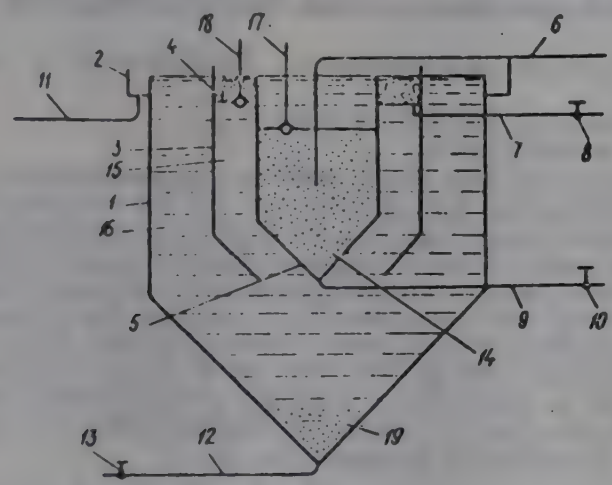


KHVO = ★ D15 65767 D/36 ★ SU-789-409
Separator for multicomponent liquid mixts. - has floats and level gauges alongside central cylinder to increase utilisation of mixt. components

KHARK BR VODGEO 29.12.78-SU-704139
J01 (25.12.80) C02f-01/52
29.12.78 as 704139 (132VE)

The separator comprises a cylinder (1) with a conical bottom, an annular partition (3) not reaching this and feed and removal piping.

To utilise the valuable components of the liquid, the bottom of partition (3) is turned inwards, and a coaxial cylindrical chamber (5) with a conical bottom has immediately alongside it floats (17,18) with graduated rods, level gauges, and electrified controls (8,10) linking these to the floats. (3pp Dwg.No.1)

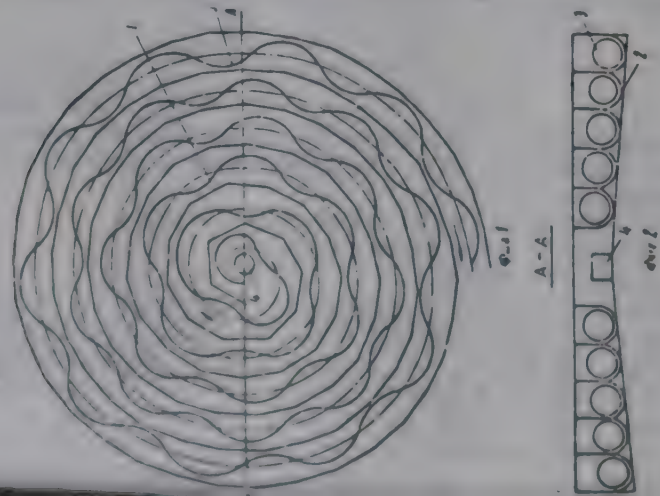


TOWN = ★ D15 65768 D/36 ★ SU-789-423
Effluent cleaner for natural aeration ponds - has spiral channel arrangement with central helical guide partition for repeated contacting of effluent and atmos.

TOWN DWELL PUB BLDS 03.11.78-SU-680516
(23.12.80) C02f-03/10
03.11.78 as 680516 (132VE)

The cleaner comprises a tank, channels (1) arranged in a spiral around the central inlet of initial liquid, and a bottom (2) sloping down from the centre to the periphery. To give repeated contact between the effluent and the atmosphere, the channels have a central helical guide partition running over their entire length.

The effluent inlet (4) leads to the outlet via channel (1) and the spiral guide (3), the turbulent flow above the top of each turn of the spiral, resulting in saturation with air through contact with



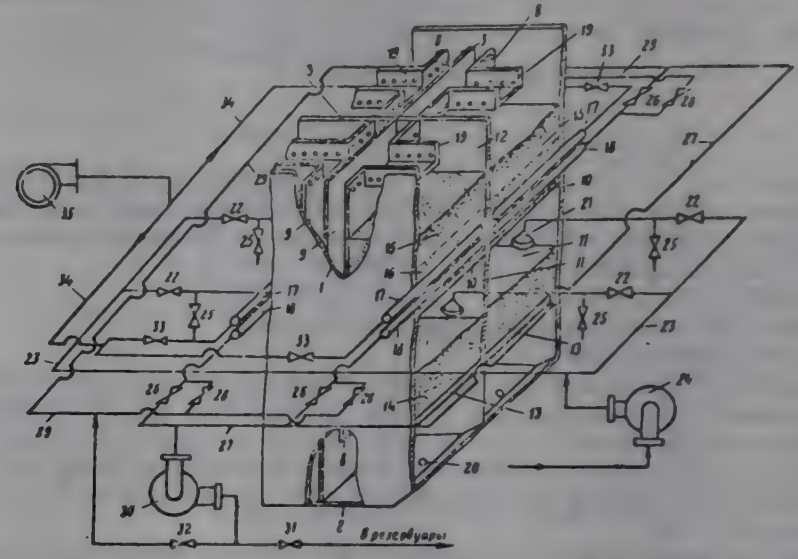
the atmos. and gas transfer between the lower layers of the effluent and the atmos. The flow contacts the atmosphere more frequently, the shorter the pitch of the spiral, and the solubility of the oxygen absorbed from the atmosphere increases as a result of increase in the pressure acting on the effluent during its ascent on to the next turn of the guide. Bul.47/23.12.80. (3pp Dwg.No.1,2)

KISU ★ D15 65769 D/36 ★ SU-789-424
Fish tank water filter - has filter blocks with water distribution channels and partitioning, in rectangular casing

KIEV SHEVCHENKO UNIV 12.09.78-SU-665390
P14 (23.12.80) A01k-63 C02f-03/14
12.09.78 as 665390 (132VE)

The filter comprises a vessel (1) split up by vertical walls (3) into filter blocks (4-7) where the first-stage filter chamber (11) is isolated by a horizontal partition (10), with a dirty water feed main, a tubular compressed air feeder (17) and a clean water removal main (18/27)

To optimise operation, each block is fitted with a water distribution channel (19) and a raised vertical partition (8) linking the first- and second-stage chambers, while feeder 17 and channel 19 are in the second-stage chamber (12). Bul.47/23.12.80. (5pp Dwg.No.1)

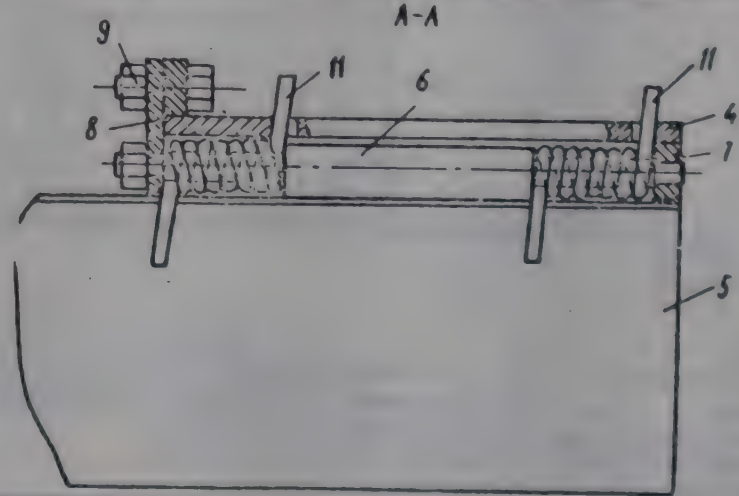


ENGI = ★ D15 65770 D/36 ★ SU-789-425
Aerator for liquid effluent - has disc with blades and spindle, and springs for protecting torque transmission shaft

ENG EQPT RES PLAN 26.09.78-SU-667544
(23.12.80) B01f-05/16 C02f-03/16
26.09.78 as 667544 (132VE)

The aerator comprises a vertical shaft with a drive, and carrying a disc with blades (5). To increase the drive's service life, each blade has a spindle (6) fixed to the disc, and springs.

The torque transmitted via the shaft to the disc, and the resistance at the blades, rotate these latter on the spindles in lugs (7,8). This tensions the mainsprings (10) of the blades and twists the torsion springs (11). The springs are designed to maintain the blades at 15 deg. to the vertical axis in the direction opposed to the direction of travel. The smooth transmission of the loads due to hydraulic impact of the material being treated, considerably reduces stressing of the drive. Bul.47/23.12.80. (3pp Dwg.No.3)

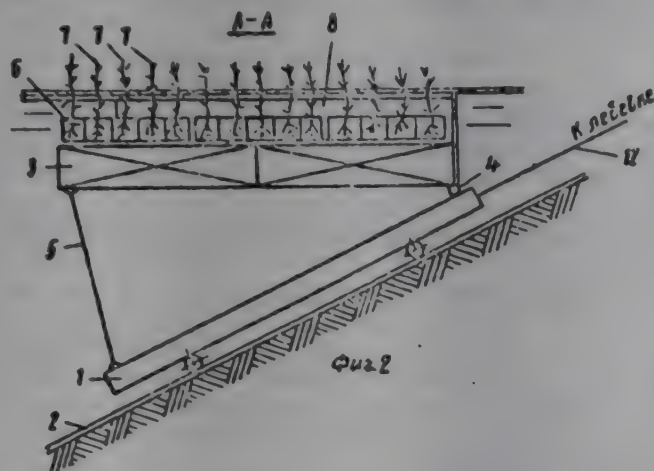


WATE = ★ D15 65771 D/36 ★ SU-789-426
Biological cleaner for water channels - has oxygenating plants on guided platform for transverse circulation irrespective channel water level

WATER CONSERVATION 15.12.78-SU-698258
(23.12.80) C02f-03/32

The cleaner comprises a charge (7) in the form of oxygenating plants. To maintain a constant set depth of the charge on variation in the water level in the channel, guides (2) on the channel walls carry a reciprocating platform (1), with a floating base (3) and frames (6) for cultivation of the said plants.

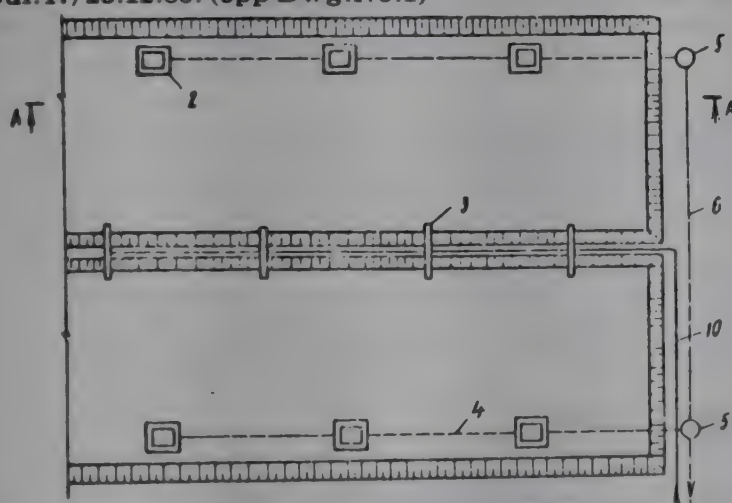
The base has a hinge (4) and a flexible link 5 fixed on opposite sides of it, and also a stream guider 8 with a height ratio of 2 relative to the base. The frames 6 on the descending platform, are kept horizontal by the base (3), even when the charge is at its set depth of 0.6-0.8m below the water level. The streamguider, with a rotation range of 25-35 deg. sets up transverse circulation in the water. The cleaner gives effective removal of biological and chemical impurities from natural water, irrespective of the water flow conditions. Bul.47/23.12.80.(3pp Dwg.No.2)



NKWA = ★ D15 65772 D/36 ★ SU-789-438
Liquid effluent sludge dryer - has gravel etc. between double grating of drains, to accelerate storm sludge water removal
NOVOK WATER SUPPLY 11.10.78-SU-676912
(23.12.80) C02f-11

11.10.78 as 676912 (132VE)
The dryer comprises a natural base 1 with drains (2) and sediment outlets (3). To increase the sludge water-filtration and removal rates, the drains are made as sumps whose walls have double gratings and gravel or ground stone between these.

Prof., the drains are located on opposite sides of the dryer. The sediment fed by pipe (10) is moistened by partial breakdown of the suspension and entry into it of the coarsest particles. The base has a 0.002 slope down to the drains, which are 20-40m apart, and the gravel etc. fraction (10-50mm) between the 20- and 400-500mm steps of the 10mm diameter gratings gives a sump height of 1.5-2.0m and a filter wall height of 250-300mm. This design also accelerates sludge-water removal during spring-thaw and stormy periods and reduces capital expenditure by a factor of four. Bul.47/23.12.80. (3pp Dwg.No.1)

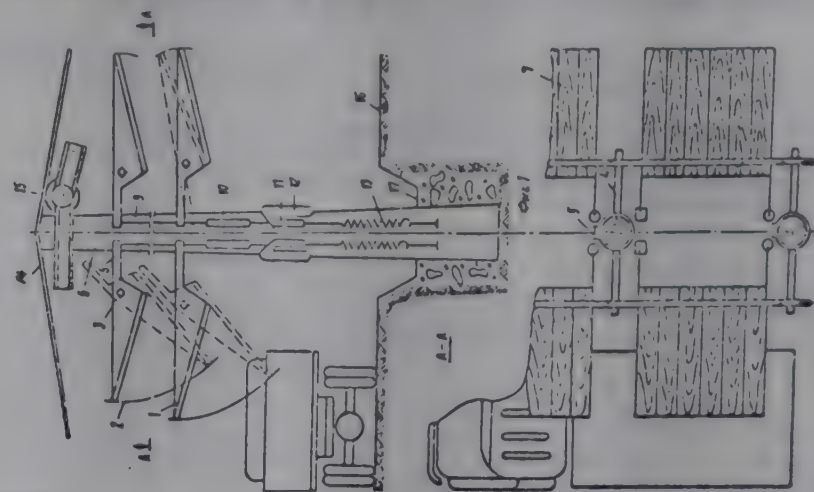


JDWE = ★ D15 65773 D/36 ★ SU-789-440
Effluent sediment off/loader - has hydraulic cylinder, and hinged rods and arms, in hollow vertical support
UKR MIN DWELL COMMU 24.01.79-SU-717039
(23.12.80) C02f-11

4.01.79 as 717039 (132VE)
The offloader comprises a sediment distribution main 15 and a set of filter bases (1) above drainage rings. To increase compactness and efficiency, a hollow vertical support 6 carries rows of arms (4) and houses rods (9) with a hydraulic cylinder 10 and hinged to each other and to the bases, which latter are free to pivot on the arms.

The plates (2) prevent flow of the sediment into the bottom of the bases (1), and a layer of liquid accumulates on the compacted sediment, which is then discharged via cylinder (10) with tipping

into channel (17). The water also enters channel once the bases regain their horizontal position. This simple design increases discharge productivity and concentration of the sediment. Bul.47/23.12.80. (3pp Dwg. No. 1,2)



WALK- D15 55165 D/31 = US 4284-396
Appts. for continuous thermo-forming thermoplastic sheet - to produce superficial pillars, for mfr. of water purificn. equipment
WALKER PROCESS CORP 14.07.80-US-168731
A32 (A88) (18.08.81) *BE-888-009 + B29c-17/04
14.07.80 as 168731 (1376BZ)

3-Dimensional shapes are continuously vacuum moulded in a roll of polymer sheet in appts. which includes a cylindrical shell having single curved moulding plates, each plates having an orifice for air removal. The sheet is fed to the outer moulding faces of the shell and is heated as a bar presses the sheet against the plates to form a seal. Air is then removed to vacuum mould the shapes. (14pp)

KARN/ ★ D15 65877 D/36 ★ US 4284-492
Combined reverse osmosis electrodialysis appts. - with composite membranes of anionic-cationic laminate through which electrical current passes
KARN WS 05.12.79-US-100486
J01 (J03) (18.08.81) B01d-13/02
05.12.79 as 100486 (295DJ)

An ionic soln. is driven by hydraulic pressure through a membrane adjacent which an electrical potential is applied. The membrane is of cpd. construction consisting of a single sheet of homogeneous resin with one side formed of an anion exchange layer, and the other side of a cation exchange layer.

The electrical potential produces a current which effects water splitting at the membrane faces producing acidity to prevent salt precipitation. Pref. periodic current reversal inhibits pore plugging and fouling.

The appts. constitutes a reverse osmosis device whose separation efficiency is maintained for long periods. (5pp)

STAH/ D15 86444 C/49 = US 4284-503
Sewage aeration basin - with revolving drum and partitions with unsymmetrical cover plates for better oxygen absorption
STAHLER T 27.03.79-DE-911975
(18.08.81) *DE2911-975 C02f-03/08
24.03.80 as 132905 (1376RH)

Sewage aerator includes a basin, and a hollow element rotatable in the basin which has part above the sewage level and radially outward partitions forming reaction chambers. The outer ends of the partitions form front and rear covering webs with slots. The front and rear webs extend down at the point where the partition dips below and emerges from the sewage respectively. Each chamber has radial baffle plates.

Power needs are reduced. (7pp)

JEWE/ D15 31303 D/18 = US 4284-508
Biological prodn. of methane and carbon dioxide - by anaerobic reaction between dilute organic waste and bacteria in attached-film, expanded bed reactor
JEWELL W J 01.10.79-US-080559

E17 H06 (18.08.81) *GB2059-938 C02f-03/28
01.10.79 as 080559 (945WB)

Methane and CO₂ are produced by first seeding dil. organic waste material with a heterogeneous bacterial culture including a methane-producing bacteria. The seeded material is fed to an anaerobic attached film expanded bed reactor contg. a particulate support media bearing a coated film. The support media comprises porous water-insol. inorganic biomaterial, each particle having dia. 5 to less than 100 mm.

Low velocity upward flow of the seeded material through the reactor is established to expand the support media bed by about 20% through which the particles of the support media are evenly distributed. The bacterial cpd. is attached to the film and reacts

with the organic material to produce CH₄ and residual effluent material. The latter is filtered by the film during its upward flow.

Waste water is purified in an energy producing process with minimised excess sludge prodn. and energy input. (5pp)

BIOT- D15 75420 C/43 = US 4284-509
Treatment of marine oil spills - by coagulation with microbial metabolites

GES BIOTECHNOLOG (WINT) 21.03.79-DE-911016
E19 H03 Q42 (18.08.81) *DE2911-016 C02f-01/54

15.11.79 as 094865 (945WB)

Oil layers on water surfaces are agglomerated by adding metabolites of microbially produced glycolipids consisting of mono- or diesters of alpha, alpha'-trehalose and alpha-alkyl- beta-hydroxy fatty acids with at least 10C in the alkyl gp., and contg. mono-, di- or oligo-saccharides as the hydrophilic component.

Used in removing oil from the sea and shoals left behind as a layer after most of the oil floating on the water has been pumped off. Pref. hydrocarbon-degrading microorganisms and nutrients are added to the agglomerates, and the agglomerated oil is collected or left to degrade in situ. (3pp)

CALI- D15 46298 D/26 = US 4284-510
Biological treatment of waste in open vessel - with oxygenation and dilution of recycling waste stream

CANADIAN LIQUID AIR (CAAL) 08.11.79-US-092283
(07.10.76-US-730478)
(18.08.81) *EP--30-485 C02f-03/26

08.11.79 as 092283 C.i.p. 4192740 (+ 11.5.78-US- 905008) (1376PW)

Biological waste water treatment is achieved in one tank. A biological reaction zone and an overlying clarification zone are formed. Part of the biological zone is recycled after mixing with waste water and passing through an O₂-dissolver. O₂ is supplied in response to the requirements of the reaction zone.

The recycled stream is continuously injected along the bottom of the reaction zone and has a much greater width than depth at a flow rate much greater than that of the waste water. (8pp)

CSIR D15 44463 D/25 = US 4284-512
Selective removal of ferric ions from aq. solns. - using an acid quaternised crosslinked phenol formaldehyde-sec. amine resin

COMMONWEALTH SCIENT ORG 29.11.79-AU-001490
A97 J01 M25 (A21) (18.08.81) *EP--30-106 C08g-14/06 + C02f-01/42

03.12.79 as 100020 (945WB)

Metal chelating resin selective for ferric ions consists of the acid-quaternised form of crosslinked polymer produced by condensing phenol cpd(s), formaldehyde and di(sec. amino) cpd(s) under neutral conditions.

The resin may be quaternised with strong mineral acid, e.g. H₂SO₄. The amino cpd. is suitably piperazine or 4,4'-bipiperidine.

Ferric ions can be removed from aq. solns. of low pH and subsequently the metal can be easily recovered. Copper or other metal ions are not absorbed. (4pp)

STAB- D15 57267 C/33 = US 4284-514
Chemical pretreatment of hazardous waste in containers - by placing containers in vessel contg. pretreatment medium, and agitating to rupture containers

STABLEX AG 29.12.78-GB-050209
M11 P35 P43 (18.08.81) *EP--13-822 C02f-01/52

20.12.79 as 105712 (1376RH)

Hazardous waste in containers is pre-treated prior to

solidification by agitating the containers in a liquid which neutralises, precipitates or modifies the waste such that the containers are ruptured. The containers are reduced to particles. The waste may contain cyanide and the liquid may be an oxidising agent.

Problem of opening containers is avoided. (4pp)

STAU * D15 65887 D/36 ★US 4284-515
Elemental phosphorus redn. in aq. media - by addn. of alkali(ne earth) metal hydroxide

STAUFFER CHEMICAL CO 10.12.79-US-102167
E36 (18.08.81) C02f-01/54

10.12.79 as 102167 (478HM)

The level of elemental P in an aq. medium is reduced by addn. of a caustic M(OH)_n (I) to the soln. to increase the pH to at least 11. In (I) M is Li, Na, K, Mg, Ca or Ba; n is valency of M. Initial P₄ levels are pref. less than 10 esp. less than 3 ppm. The aq. medium is suitably obtd. from H₂O used in the electric furnace prepn. of P₄. (I) is pref. an alkaline earth hydroxide, esp. Ca(OH)₂. Treated aq. medium may then be clarified with a flocculant, then neutralised.

Simple, inexpensive, practical treatment effectively reduces P₄ levels in aq. media (esp. 'phossy'-water) to very low levels (e.g. less than 5 ppb). (3pp)

GOOD * D15 65888 D/36 ★US 4284-516
Removing low level polychlorinated bi:phenyl contaminants from fluids - using alkali metal aromatic radical anion reagent

GOODYEAR TIRE & RUBBER 04.02.80-US-118294
E14 (18.08.81) C02f-01/70

04.02.80 as 118294 (949HM)

The dehalogenation of low level (ppm) concns. of polychlorinated biphenyls (PCB's) dispersed in a contaminated fluid substrate comprises contacting the substrate with 25-500 moles of a reagent per mole of PCB. The reagent is prepd. by dispersing molten Li, Na or K at not less than 150 deg.C in an inert fluid (esp. the substrate) of b.pt. above the m.pt. of the alkali metal. Amt. of fluid is 250 ml per mole of metal.

This mixt. is then treated with 1.3 moles of aromatic radical anion forming cpd. (I), the process being improved by first cooling the alkali metal/fluid dispersion to room temp. with vigorous stirring under an inert atmosphere. (I) is a biphenyl, naphthalene, anthracene, naphthacene, o-, m- or p-terphenyl or their alkyl subst. deriv. and is dissolved in 500 ml of dimethyl ether, ethylene glycol dimethyl ether or THF.

Process is esp. used for detoxification of PCB's contaminating heat transfer fluids, concn. being reduced from 82 ppm to 2-3 ppm in examples. The process is also applicable to dehalogenation of other organics, e.g. kepone (and its gem diol), aldrin, dieldrin, hexachloro-cyclo-pentadienes, dibromo-chloropropane, tetrachlorodi-benzodioxin, 2,2-dichloro-vinyl-dimethyl phosphate, etc.

Cooling the alkali metal/fluid dispersion with vigorous stirring under an inert atmos. gives high surface area particles with min. oxide coating which are able to give reproducible results on scale up. (4pp)

See Also

D16 J81034014 D17 GB1596911

D16: FERMENTATION INDUSTRY

CORR * D16 64204 D/36 ★BE -888-487
Protecting dogs against canine parvovirus - using live, attenuated vaccine prepd. by serial passaging

CORNELL RES FOUNDATION 18.04.80-US-141447
B04 C03 (17.08.81) A61k C12n

17.04.81 as 888487 (1251RH)

Dogs are protected against canine paravirus (CPV) infection by inoculating with a vaccine based on live, modified CPV and prepd. by serial passaging of a virulent strain on non-oncogenic cells until it is no longer virulent. Pref. at least 80, esp. 108, passages are carried out at below the normal body temp. of dogs, esp. 33 deg.C.

Pref. cells used are the MDCK (CCL-34) line; canine or feline kidney cells; mink or feline lung cells; foetal bovine spleen cells, or bovine testes cells and the virulent strain is esp. CPV-916. The vaccine itself is also claimed.

Compared with killed vaccines these live vaccines give a 4-5

and are easier and cheaper to prepare. (38pp)

REGI- * D16 64214 D/36 ★BE -888-533
Prodn. of methane by anaerobic digestion of biodegradable liqui - using bed of immobilised bacteria on particles of specified size

REGION WALLONNE 23.04.81-BE-888532
E17 (17.08.81) C02f C12p

23.04.81 as 888532 (597DJ)

The process, employing a fluidised bed of methane forming bacteria immobilised on solid particles, comprises using particles of size below 90 microns and employing a liq. rate above 2.5m/hr.

The pref. particle size is 30-60 micrometres and the pref. liq. rate is 2.5-20 m/hr. The digestion is pref. realised in a medium with a rate gradient increasing from the top to the base. Pre-liquids treated are residues from agriculture, stock farming

The process not costly and enables rapid treatment of large amts. of liquid with high gas prodn. rates. It can deal with wide variations in the quality of effluent treated and enables a compact biomass with a large capacity. (14pp)

HULE/ ★ D16 D/36 ★ BR 8000-766
Small alcohol distillery
 HULETT D 07.02.80-BR-000766
 (11.08.81) C12f-01

ANGE- ★ D16 64230 D/36 ★ DD-148-721
Immunological preparations e.g. virus antigen hydrolytic modification - using immobilised enzyme e.g. bromelain to avoid contamination of the product with enzyme

ANGEWANDTE VIROLOGI 29.01.80-DD-218714
 B04 (10.06.81) A61k-39
 29.01.80 as 218714 (280RH)

In the prodn of modified immune preparations, proteins, carbohydrate; nucleic acid-and lipid-contg biosynthesis products of vegetable, microbial or viral origin or chemosynthetic products are subjected to hydrolytic modification using immobilised (carrier-fixed)enzymes (esp hydrolases)under milie conditions (pH temp substrate) which are optimal for the end prod.

Used in prodn of hydrolytically modified immunological products, esp ortho- or paramyxovirus antigens, without contamination of the end product with the hydrolytic enzyme. (7pp)

BERG/ ★ D16 64247 D/36 ★ DD-148-764
Acetone separation from azeotropic mixt. with aliphatic hydrocarbon(s) - by extractive distn. with higher hydrocarbon or glyco-ether opt. blended with water or glycol

BERGER KH 29.01.80-DD-218696
 E17 J01 (D13) (10.06.81) C07c-07/08 C07c-45/83 C07c-49/08
 29.01.80 as 218696 (200DJ)

Acetone is separated from azeotropic mixts. with esp. aliphatic 5-8C hydrocarbons by extractive distn. with selective extractants, subsequent rectification and recycling of extractant. The extractants are either (i) higher, esp. aliphatic hydrocarbons, pref. boiling above 120 deg.C, or (ii) glycol ethers, having formula R1-O-CH2-CH2-O-R2 or R1-O-CH2-CH2-O-CH2-VH2-O-R2 (where R1 is alkyl and R2 is H, acetyl or alkyl), esp. mono-butyl-glycol.

The process can be used for the recovery of solvents from the bio-lipid extract of yeast feedstuff prepn. Highly pure acetone and 5-8C hydrocarbons are obtd. suitable for re-use. Extractant quantity is relatively small. The extractants allow acetone separation from mixts. with several hydrocarbons. (10pp)

THOM/ ★ D16 64326 D/36 ★ DE 3006-709
Homogeneous enzyme-mediated assay of ligands e.g. hormones - using enzyme mediator-labelled ligand, with steric enlargement of at least one reaction component

THOMA HA 22.02.80-DE-006709
 B04 C03 S03 (27.08.81) G01n-33/54
 22.02.80 as 006709 (280AT)

In a new homogeneous procedure for the determination of ligands (esp. those of high mole wt.) using enzyme modulators (e.g. enzyme inhibitors) as markers of the ligand to be determined, enzyme modulator/ligand conjugate binding receptor, enzyme and substrate, at least one of the reactants influencing the measurement reaction is sterically enlarged.

Steric enlargement of the reactant is advantageously effected by means of antibodies or their Fab fractions. Alternatively, the enzyme reaction component can be sterically enlarged by chemical fixing, pref. by means of water-soluble polymers.

Enzyme-mediated analysis of substances e.g. thyroidhormones, steroids, pharmaceuticals, drugs, herbicides, insecticides, toxins, antigens etc. The procedure can be carried out homogeneously (i.e. without sepn. steps), and permits the accurate determination of a wide range of ligands. (29pp)

THOM/ ★ D16 64327 D/36 ★ DE 3006-710
Enzyme modulator-ligand complexes - e.g. pepstatin-thyroxine ethyl ester complexes, and their use in enzyme mediated assay of ligands in body fluids

THOMA HA 22.02.80-DE-006710
 B04 (27.08.81) C07g-07 C07g-17
 22.02.80 as 006710 (280RH)

New enzyme modulator/ligand conjugates comprise an enzyme modulator component capable of irreversibly influencing and/or covalently binding the reference enzyme. New procedure for the determination of a ligand (esp. a biologically active cpd.) comprises (a) introducing into a liquid medium in a suitable order the (serum) specimen, the above enzyme modulator/ligand conjugate, a receptor which reacts under the influence of the enzyme modulator component, the reference enzyme and a substrate for the reference enzyme, (b) carrying out the reaction

homogeneously or heterogeneously and (c) measuring the activity of the reference enzyme.

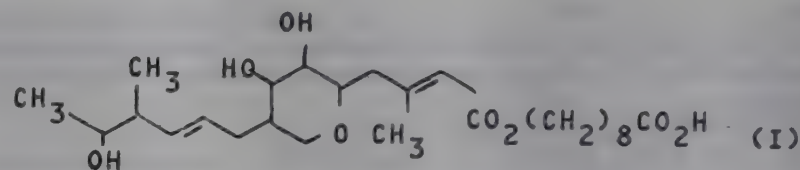
Measurement of substances such as pharmaceuticals, drugs, narcotics hormones, steroids, polypeptides, prostaglandins, toxins, etc. in body fluids such as blood or urine, e.g. in medical diagnosis. The use of enzyme modulator/ligand complexes in the determination is based on the finding that the irreversible effect of the enzyme modulator on the reference enzyme can be locked by the presence of receptors (esp. antibodies) for the ligand to which the enzymes modulator is bound. The new method is suitable for the determination of ligand concns. in the picomole range. (40pp)

BEEC D16 64894 B/30 = DS 2860-724
Pseudomonic acid C from Pseudomonas fluorescens fermentation - useful as antibacterial agent with good beta lactamase stability (DK 21.5.79)

BEECHAM GROUP LTD 01.11.77-GB-045305
 B03 (27.08.81) *EP---3-069 A61k-31/10 C07d-309/10 C12p-17/06
 24.10.78 as 860724 Based on EPG003069 (964WB)

Pseudomonic acid C of formula (I) and acceptable salts and esters are new. Specifically claimed are the methyl ester, isohexyl ester and sodium salt of (I). (I) may be produced by culturing Pseudomonas fluorescens aerobically, acidifying and solvent extn.

(I) has antibacterial activity and is used esp. for treating venereal disease, and respiratory infections, e.g. chronic bronchitis, bacterial meningitis, non-specific urethritis and pneumonia. (15pp)



MODR/ ★ D16 64352 D/36 ★ EP --34-213
Stabilised aq. coenzyme solns. - useful in clinical assay of biological materials, esp. for determ. of blood urea

MODROVICH IE 13.02.80-US-121225
 B04 (26.08.81) C12p-01 C12q-01
 08.12.80 as 107733 (1248AT) (E) US4019961 FR2217296 FR2308639 GB1512326 FR2344570 US4153511 EP--9222 J53107486 US3776900 2.Jnl.Ref E(AT BE CH DE FR GB IT NL LU NL SE)

Stabilised aq. coenzyme soln. comprises (a) a polyhydroxy organic cpd; (b) a first enzyme and a first substrate for selective reaction with it; (c) a coenzyme for interaction with the first enzyme and first substrate in aq. soln. to form a degradation prod. (I); and (d) a second enzyme and a second selective substrate for reaction with it and to convert (I) to the coenzyme.

The stabilised soln. is useful in the clinical assay of selected biological materials, e.g. for quantitative determ. of urea in human sera, and for the determ. in biological fluids of glutamic oxalacetic acid transaminase, glutamic-pyruvic transaminase, lactic dehydrogenase, creative phosphokinase, alpha-hydroxybutyric dehydrogenase, glucose (through hexokinase and glucose 6-phosphate dehydrogenase or glucose dehydrogenase) and triglycerides. The solns. are stable on prolonged storage, so that close tolerance control can be achieved to give high quality liquid reagent solns. economically. (49pp)

KLEI/ D16 62498 D/35 = EP --34-293
Bio-catalyst beads prodn. by inclusion polymerisation - of enzymes, cells or cell fragments, by spraying enzyme or biomass suspension in polyelectrolyte soln. into counter-ion bath

KLEIN J 15.02.80-DE-005632
 A96 B04 J04 (26.08.81) *DE3005-632 C12n-11/04
 02.02.81 as 100721 (280RP) (G) No-Citns. E(AT BE CH FR GB IT LI LU NL SE)

In a new process for the prodn. of biocatalysts with high mechanical resistance and with a high content of enzymatically active substance by polymer-inclusion of whole cells, cell fragments or enzymes using (A) a suspension or soln. of an enzymatically active substance in an aq. 0.1-15 wt.% soln. of a polyelectrolyte and (B) a pptn. bath contg. 0.02-35 wt.% of a cpd. contg. polyvalent ions oppositely charged to the polyelectrolyte of solution or suspension A, (1) the soln. or suspension A is sprayed into the bath B to form perle-shaped particles of granule size ca. 0.5-10 mm which solidify during stirring for ca. 0.5-4 hrs.; (2) the catalyst perles are filtered off and washed with water, physiological saline or the aqueous solution or emulsion of a protective colloid; (3) the perles are dried (with shrinkage and solidification) by blowing with air at up to 80 deg.C for up to ca. 48hrs.; and (4) the catalyst perles are equilibrated for up to ca. 24 hrs. in an aq. soln. which stabilises the enzymes and the crosslinking.

Used for immobilisation of enzymes for use as industrial

biocatalyst. The biocatalyst parles have high resistance to mechanical pressure and have high enzyme content. (5pp)

SORI-★ D16 64372 D/36 ★EP--84-304
Immobilisation of enzyme inside dialyser hollow fibres - by coupling after oxidn. with sodium periodate

SORIN BIOMEDICA SPA 12.01.81-IT-067023 (13.02.80-IT-067212)

B04 P34 (26.08.81) A61m-01/03 B01d-13 C12n-11/12
05.02.81 as 100791 (367BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Method of immobilising an enzyme in a bundle of cellulosic hollow fibres for use in a blood-purifying dialyser comprises (a) activating the cellulosic material by means of an oxidising agent, (b) removing excess oxidising agent by washing, and (c) directly or indirectly bonding the enzyme to the activated material through covalent linkages.

The improvement lies in the fact that selective bonding of the enzyme to the inside (lumen surface) of the hollow fibres is achieved by circulating an aq. NaIO₄ soln. through the lumens of the fibres in step (a). The NaIO₄ soln. has a concn., of 0.7-21 (esp. 1) mg/ml. and is circulated at a rate of 300-500 (esp. 400) cubic mm/min. per square mm. of cross-sectional area at 15-30 deg.C for up to 70 min.

The process gives high enzyme concns. (capable of converting non-dialysing toxicants into dialysable substances) on the insides of the hollow fibres without impairing their strength, biocompatibility or dialysing efficiency. (34pp)

FARH D16 62879 D/35 = EP--34-306
Microbiologically prepd. human interferon - DNA and plasmid(s) for coding for this interferon, and sepn. of mRNA from human fibroblasts

HOECHST AG 16.02.80-DE-005843
B04 (26.08.81) *GB2069-504 C12n-01/20 C12n-15 C12p-19/34 C12r-01/19 + C07h-21/04 C12p-21/02

05.02.81 as 100802 (985DJ) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

The following are new: (i) a microbiologically prepd. polypeptide (I), all or part of which comprises the amino acid sequence of human interferon (pref. of human fibroblast interferon); (ii) a cDNA which codes for (I) whenever prepd. using mRNA obtd. from human fibroblast cells; (iii) a plasmid (pref. pBR 322) which comprises the cDNA of (ii); (iv) a microorganism (A) which comprises the genetic information required for the biosynthesis of (I); and (v) prepn. of RNA which comprises arranging a caesium chloride-free lysate (pref. of human fibroblasts) as a layer on an aq. CsCl soln., centrifuging the resulting system and obtaining the RNA.

(A) can be used to prepare human interferon which has antiviral, cell division inhibiting and immunological reactions regulating activity. Use of CsCl-free lysate achieves the most complete possible sepn. of mRNA from the RNA mixt. (16pp)

FARH ★ D16 64373 D/36 ★EP--34-307
Microbiologically produced interferon poly:peptide - produced by cultivation of a microorganism contg. the genetic information for the amino acid sequence of the polypeptide

HOECHST AG 16.02.80-DE-005897
B04 (26.08.81) C07h-21/04 C12n-01/20 C12n-15 C12p-19/34 C12p-21/02 C12r-01/19

05.02.81 as 100803 (280AT) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

New microbiologically produced polypeptide contains, wholly or in part, the amino acid sequence of human interferon.

Also new are: (a) cDNA coded for the amino acid sequence for human interferon, produced by means of mRNA from human leukocyte cell lines; (b) a plasmid coded for the amino acid sequence of human leukocyte interferon, produced from cDNA as defined under (a) and a plasmid (pref. plasmid pBR 322); and (c) a microorganism (esp. *E. coli*) with the genetic information for the biosynthesis of the new polypeptide defined above. Additionally claimed is a process for the prodn. of RNA in which a CsCl₂-free lysate is layered on an aqueous concentrated soln. of CsCl₂ and centrifuged, then RNA is recovered.

The polypeptide has the biological and immunological properties of interferon. Interferon inhibits virus prodn., inhibits cell division, and regulates many reactions of the immunological system. (16pp)

BOEF D16 62486 D/35 = EP--34-320
Plasma heparin biological activity determ. - by incubation with thrombin or factor XA and chromogenic peptide substrate in the absence of exogenous antithrombin and of urea

BOEHRINGER MANNHEIM GMBH 14.02.80-DE-005540
B04 (26.08.81) *DE3005-540 C12q-01/56 + G01n-33/86
09.02.81 as 100899 (280JB) (G) DE2812943 FR2317280 1.Jnl.Ref

In a new procedure for the determ. of the biological activity of heparin in plasma by the addn. of thrombin or factor Xa as a proteolytic enzyme and of a chromogenic substrate of the enzyme and measurement of the amt. of dye released from the chromogenic substrate, the determ. being carried out in the absence of exogenous antithrombin III in accordance with DE2812943, the novel feature is that the determ. is carried out in the additional presence of urea.

New reagent for carrying out the above procedure contains 0.01-0.2 mol/l buffer, pH 6-9; 0.05-0.25 mol/l alkali chloride; 200-1100 NIH/l thrombin or factor Xa; 0-10 g/l polyethylene glycol; and 20-100 g/l urea.

Used for monitoring blood heparin levels during heparin therapy of patients at risk due to thrombosis. The presence of urea enhances the sensitivity, accuracy and reliability of the determ. at low heparin concentrations. (14pp)

CORP D16 62878 D/35 = EP--34-470
Recombinant DNA contg. amylase coding gene - for genetically engineering microorganisms to produce amylase

CPC INTERNATIONAL INC 10.04.80-GB-011842 (15.02.80-GB-005184)

B04 (26.08.81) *GB2069-503 C12n-09/26 C12n-15 + C07h-21/04 C12n-01/20 C12p-19/14 C12r-01/12

12.02.81 as 300578 (985DJ) (E) No-Citns. E(AT BE CH DE FR IT LI NL SE)

Recombinant DNA contg. an amylase coding gene (I), prepd. by the in vitro process of cleaving DNA derived from a bacterial donor microorganism (1) and combining the resulting DNA fragments with a vector (II), is new. (II) comprises a plasmid (pref. pBR322, pACYC 184 or pC 194) or the DNA of a deriv. of phage lambda (pref. of phage lambda NM 590, NM 781 or NM 989).

A genetically engineered microorganism (2) contg. the recombinant DNA of (A) is new. Pref. (2) is capable of producing amylase, when cultivated, in amts. greater than that produced by (1).

Prodn. of amylase comprises cultivating (2). Pref. (i) the recombinant DNA is present in the form of a lytic phage and cultivation is in an infected bacterial host; (ii) the DNA is in the form of a phage in a lysogenic *E. coli* and cultivation is carried out so as to induce phage multiplication by heat treatment; or (iii) the DNA is in the form of a plasmid and cultivation in by growth to the stationary phase.

(2) can be used to produce amylases, esp. an alpha- or beta-amylase or a pullulanase. These enzymes are useful in industrial enzymatic starch hydrolyses (e.g. liquefaction and/or saccharification of starch to produce adhesives, sizings, malto-dextrins, starch syrups, maltose, dextrose, etc.) with favourable properties such as resistance to high temp., heavy metal poisoning etc. (2) are prepd. by the transfer primarily of the gene for the prodn. of a single amylase therefore minimising the purifcn. problems on the amylase mfr. (--pp)

MERI ★ D16 64453 D/36 ★EP--34-543
Solubilising *Gonococcus* antigen by trypsin digestion - useful for making vaccines against gonorrhoea

MERCK & CO INC 19.02.80-US-122533

B04 (26.08.81) A61k-39/09

18.02.81 as 400252 (1251AT) (E) No-Citns. E(DE BE FR GB IT NL SE)

Gonococcal antigens (I) are solubilised in a physiologically acceptable medium by first digesting a suspension of (I) in aq. NaOH of pH 7-9, specifically 7.8, with trypsin at 37 deg.C. Then the digest is eluted through an affinity column with water, and the eluate then diluted with a medium.

The affinity column is specifically made of 'Utrogel AcA 34' (RTM) coupled with soyabean trypsin inhibitor, and the medium is pref. aq. NaCl.

The method is esp. applied to *Neisseria gonorrhoeae* cell-surface antigens for prodn. of anti-gonorrhoea vaccines. The solubilisation procedure can also be used for isolation and purification of active antigen peptides. (5pp)

INRG ★ D16 64500 D/36 ★FR 2474-052
Collagenase produced by *Flavobacterium spec. CRZV. 1* - used to tenderise meat, treat burns and wounds, in dental transplants, for resorption of discal hernia and for dissociation of cells

INST NAT RECH AGRON 21.01.80-FR-001255

B04 (D13 D21 D22) (24.07.81) A23j-01/02 A23j-03 A61k-37/54 C12n-09/52

21.01.80 as 001255 (395RH)

Collagenase (I) produced by *Flavobacterium spec. CRZV.1* and having the following characteristics is new: - a) it has a mol. wt. of 83000-105000 daltons; b) an isoelectric pH of 7.9; c) optimal collagenolytic activity at pH 7.6 in 0.05M tris HCl 0.003M CaCl₂ buffer at -30deg.C; d) it does not have non-specific proteolytic activity and is weakly inhibited by cysteine and thiol function

Used for the tenderisation of meat and in medicine, for the treatment of burns in healing of wounds in dental transplantation, for resorption of discal hernias and the dissociation of cells.

Prepn. of (I) comprise fermentation of *Flavobacterium spec. CRZV.1* in a suitable medium of 15-35 deg.C. and 30 deg.C. and pH 7-8 pref. 7-6, followed by extraction and purification. Suitable media are based on collagen or substances having similar proteic sequences, e.g. polymeric collagen, thermally denatured collagen (gelatins) or meat extracts, and contain 1-25g/l of material esp. 10g/l of meat extract or 12g/l of collagens. The culture medium also contains vitamins, usually yeast extracts in amounts of 0.1-25g./l, esp. 2.5g/l. (27pp)

CSIR ★ D16 64541 D/36 ★ FR 2474-527
Fermentative prodn. of ethanol - by fermentation of carbohydrate-based material as pulp
 COMMONWEALTH SCIENT ORG 02.04.80-AU-003006
 (30.01.80-AU-002181)

E17 H06 (31.07.81) C101-01/18 C12p-07/06

30.01.81 as 001791 (367KB)

Ethanol prodn. is carried out by (a) grinding or pulping a carbohydrate-based material to obtain a pulp which contains practically no free liq. and consists of particles with a dia. of up to 10mm; (b) if necessary, saccharifying and opt. heating the pulp to convert non-sugar carbohydrates to sugars; (c) mixing the pulp with a yeast slurry, during or after saccharification, and fermenting the mixt. to convert sugars to ethanol; and (d) extracting the ethanol from the fermented pulp.

The ethanol can be used as a fuel, esp. when mixed with gasoline. The process can be operated economically on a much smaller scale than conventional processes using simple and relatively inexpensive equipment. (19pp)

HOFF D16 62154 A/35 = GB 1596-811
Microorganism detection by liquid and solid culture media - in separate bottles with screw connection to provide communication

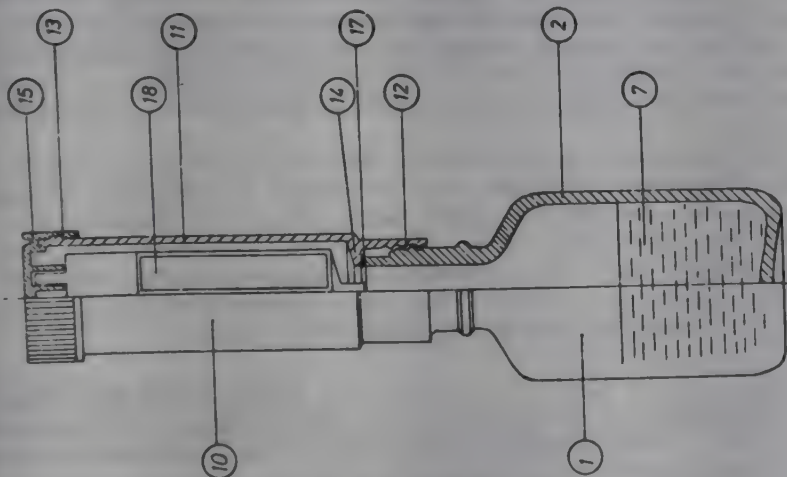
HOFFMANN-LA ROCHE AG 18.02.77-CH-002063

S03 S05 (03.09.81) *DE2806-902 + B011-03 C12q-01/22

17.02.78 as 006408 (1358HM)

Microorganisms are detected, partic. in blood, by adding a sample to a container(1) holding a liquid nutrient medium(7), connecting, opt. after incubation, to a second container(10) holding a solid nutrient medium(18), allowing the first container contents to contact the solid, incubating, and studying any colonies formed on the solid surface.

The two containers are pref. screwed together and the second may contain a single or several different media. The appts. is claimed and allows liquid and solid nutrients to be supplied separately and only brought together during use. (6pp)



HOFF D16 62154 A/35 = GB 1596-812
Microorganism detection by liquid and solid culture media - in separate bottles with screw connection to provide communication

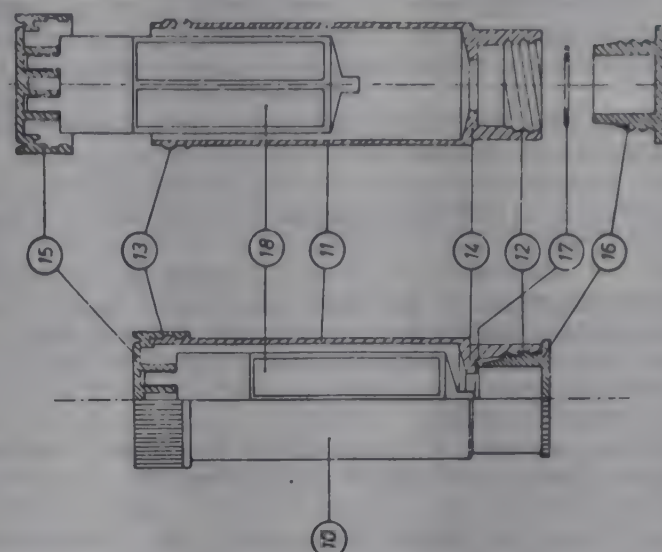
HOFFMANN-LA ROCHE AG 18.02.77-CH-002063

S03 S05 (03.09.81) *DE2806-902 B011-03 C12q-01/22

7.02.78 as 023298 /80 Div.ex 1596811 (1358HM)

Appts. for detecting microorganisms, e.g. in blood comprises a transparent tube(10) with a closure at both ends and a carrier fixed on one closure to extend into the tube and which is coated with one or more solid nutrient media.

The carrier is pref. a slide(18) and is coated on both sides with media. The tube and carrier are for use with a first container holding liquid nutrient medium for preliminary cultivation of a sample and which can be screwed to the tube. (6pp)



SAIN/ D16 03485 D/03 = GB 1597-109
In vitro tumour and embryo formation in plant seedlings - by treatment with hormones under controlled environmental conditions

SAINT-FIRMIN AR 10.11.76-GB-048403

B04 C03 P13 (03.09.81) *US4241-536 A01g-31 + A01n-33 A01n-63 A01n-65 C12n-05

18.11.77 as ----- (913BL)

Non-cytotoxic plant metabolite is claimed which is isolatable from plant material of genera *Hyoscyamus* or *Duboisia*, whose biosynthesis is dependent on PAL. It is a glucoprotein chemically related to 5-hydroxyferulic acid, exhibits yellow fluorescence in UV, and has an Rf value in acetone of 0.7 on silica gel thin layer chromatography.

Also claimed is a steroidal cpd. whose glycone exhibits Rf value in acetone of 0.01 on silica gel thin layer chromatography, light blue fluorescence in UV and is isolatable from plant material of the genera *Hyoscyamus* or *Duboisia*.

Process of prodn. for both materials is claimed. (10pp)

ALFA D16 86413 A/48 = GB 1597-181
Reaction vessel for continuous processes - with fixed retention time by hose of constant section wrapped around reel (SW 30.10.78)

ALFA-LAVAL AB 06.04.77-SE-004020

A92 J04 (03.09.81) *DE2812-360 B01j-01 + C12c-13

13.03.78 as 009833 (137AS)

Continuous chemical and/or microbiological process is carried out in a vessel in the form of a coiled tube (1) of uniform cross-section. The tube may be wound helically in layers around a horizontal axis, and be of polyethylene, Cu, or stainless steel.

Holding time for process media can be accurately maintained. (4pp)

DUIN D16 76283 A/43 = GB 1597-259
Prodn. of attenuated transmissible gastroenteritis virus - for making live vaccines to protect pigs by repeated passages on tissue culture

DUPHAR INTRES BV 21.04.77-NL-004348

B04 C03 (03.09.81) *BE-866-150 A61k-39/22

18.04.78 as 015184 (945AS)

Prepn. of a live, attenuated transmissible gastroenteritis (TGE) virus strain comprises subjecting a virulent TGE strain to 10-500 tissue culture passages over swine thyroid gland tissue cells. A non-virulent, immunogenically active liq. contg. virus strain is obtd.

The virulent strain may be isolated directly on swine thyroid tissue and subjected thereon to further tissue culture passages (less than twice the original number of passages). Suitably the virulent strain is subjected to 250-300 passages at 37 deg.C. The B1 strain can be used as virulent virus.

The prod. may be freeze dried and is used to protect pigs, esp. piglets. (13pp)

MIFI D16 46142 A/26 = GB 1597-345
Detection of the presence of a component of an immunochemical reaction - one component being immobilised on a microporous diaphragm, and the other component passed through it

MILLIPORE CORP 16.12.76-US-751099

B04 J04 S03 + P31 (S05) (03.09.81) *DE2755-689 G01n-33/56 + B01d-37/02

14.12.77 as 051990 (945HM)

Device is for detecting the presence of a component of an immunochemical reaction between (A) an antibody or antigen and (B) a component which binds immunochemically with it. The device comprises a microporous membrane having more than

50% of its total vol. in form of pores 25nm. to 25 microns in size. (A) is immobilised on the membrane and the membrane is supported so that a test fluid can be passed through it, to test for (B).

Device is used for diagnostic testing of body fluids. Nonspecific binding can be minimised and compensated for by use of a control soln. Subsequent colour development can be used to give a quantitative result and time required for the test is reduced. (15)

TATL ★ D16 64846 D/36 ★ GB 2070-022
Immobilised enzymes in gel layers on inert support - esp. for amyloglucosidase used to produce glucose from starch

TATE & LYLE LTD 20.02.81-GB-005424 (26.02.80-GB-006448)
(D17) (03.09.81) C12n-11

20.02.81 as 105424 (1251AS)

A prod. having an active immobilised enzyme (I) as part of an external gel deposit on an inert support is new. Pref. the deposit represents at least 3, esp. of the total vol., and can be either a continuous matrix enclosing the support, or a discontinuous or irregular coating. It pref. contains 50-95% water, the balance being immobilised enzyme solids. (I) is esp. a saccharifying enzyme and the support is bone char. Also new are enzymatic conversion methods using these prods.

Method is esp. used to immobilise amyloglucosidase (I') used to prod. glucose from starch. The gel is strong and shear-resistant, and rapid attrition of the layer during use does not (pref. enzyme half-life is over 10 days.) (12pp)

YAMA ★ D16 64715 D/36 ★ J5 6030-988
Prepn. of 7-methoxy-cephalosporin derivs. - by cultivating *Streptomyces* spp. (ATCC 31167) and treating prod. with D-aminoacid oxidase in *Trigonopsis* spp (IF007SS) culture

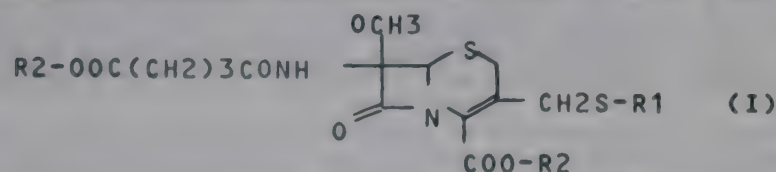
YAMANOUCHI PHARM KK 22.08.79-JP-107358

B02 (28.03.81) C07d-501/04 C12p-35/08

22.08.79 as 107358 (140BZ)

Prepn. of 7-methoxy cephalosporin derivs. of formula (I) useful as intermediates for antimicrobial cephalosporin derivs. comprises cultivating a microorganism belonging to the genus *Streptomyces* (e.g. *Streptomyces oganensis* Y-G 19Z (ATCC 31167). A new 7-(D-5-amino-5-carboxy valeramido)-7-methoxy-3 subst. cinnamoyloxymethyl)-delta3- cephem-4-carboxylic acid of formula (II) is recovered from the culture. (II) is reacted with a mycelium or a treated mycelium of a D-amino acid oxidase-producing microorganism belonging to the genus *Trigonopsis* (e.g. *Trigonopsis variabilis* (IFO 0755) under an aerobic condition to obtain a new 7-(4-carboxybutyr amido)-7-methoxy-3-(subst. cinnamoyloxymethyl)-delta3- cephem-4 carboxylic acid of formula (III), when R is sulfo. Hydrolysing (III) to convert into new 7-(4-carboxybutyr amido)-7-methoxy-3 (mono- or dihydroxycinnamoyl oxymethyl)-delta3-cephem-4 carboxylic acid of formula (III'), and reacting (III') with a thiol cpd. and, if necessary, esterifying the prod.

In the cultivation addn. of 0.1-5 mg/ml of 4-mono- or 3,4-dihydroxysilycic acid to the medium increases the yield of (II, R SO₃H). In obtaining the D-amino acid oxidase by cultivation, addn. of a D- or DL-amino acid (e.g. D- or DL-methionine) to the medium brings about high enzymatic activity. To attain complete oxidative decarboxylation of (II), pref. a catalase-inhibitor is added (e.g. sodium azide) to the reaction mixt. or used to pre-treat the mycelium or catalase in the mycelium may be deactivated by heat-treatment. In the reaction between (II) and the enzyme system, (III) is obtd. without by prods. by adding a small amt. of hydrogen peroxide to the reaction mixt. (12pp)



AJIN ★ D16 64853 D/36 ★ J5 6088-766
Dietetic food contg. edible elastic polysaccharide - obtd. by immersing cellulose-type polysaccharide produced by acetic acid bacteria, in aq. polyhydric alcohol soln.

AJINOMOTO KK 20.12.79-JP-165911

(D16 D17) (18.07.81) A231-01/04

20.12.79 as 165911 (5RP)

The food contains the edible elastic difficult-digestible polysaccharide which is obtd. by immersing the cellulose-type polysaccharide produced by acetic acid bacteria, in the aq. conc. soln. of edible above-2-valent polyhydric alcohol and if necessary, heating the mixt.

As the bacterial strain of *Acetobacter A. acetii* IFO3284, *X. xylinum* IFO3288, etc. can be used. As edible above-2-valent polyhydric alcohol sugar such as glucose, sucrose, maltose, etc., sugar alcohol such as sorbitol, xylitol, maltitol, etc. and divalent

or trivalent alcohol such as propyleneglycol, glycerin, etc. can be used and they are used in the form of the aqueous soln. having the concentration above 20%, pref. above 50%. Though the immersion requires one month at room temp., by heating to 50-130 deg.C. the immersion time can be shortened to 24 hours or less.

Polyhydric alcohol partic. sugar alcohol can be used instead of sugar non-sweet or a little sweet polysaccharide. The prod. is excellent as dietetic food. (3pp)

TOYM ★ D16 64855 D/36 ★ J5 6088-792
Stabilising of acyl-coenzyme/A synthetase - by adding 5'-adenosine triphosphate, 5 adenosine-di:phosphate, 5-guanosine tri:phosphate 5' guanosine di:phosphate and/or their salts

TOYOBO KK 19.12.79-JP-166119

B04 (18.07.81) C12n-09

19.12.79 as 166119 (5RH)

Method comprises combining at least 1 cpd. selected from 5'-adenosine-triphosphate, 5'-adenosine-diphosphate, 5'-guanosine-triphosphate, 5'-guanosine-diphosphate and their salts and if necessary, polyhydric alcohol in a drug containing acylcoenzyme A synthetase (ACS). Recently refined ACS has been used for determn. of free fatty acids in the field of clinical examinations utilising its conjugate reaction with other enzymes. Above nucleotides show much better stabilising effect on ACS than conventional stabilisers and the stabilising effect can be further increased by using the nucleotide together with polyhydric alcohol.

Nucleotide is combined in amts. of 0.001mM-0.1M pref. ca. 1mM in the soln. of ACS and 0.1-1 mg. pref. 10-20 mg. in 100 mg. of powdery ACS. As polyhydric alcohol monosaccharide, oligosaccharide, divalent alcohol, tri- or more-valent alcohol, etc. can be used and they are used 0.5-50 wt.% in ACS drug. (4pp)

MATU ★ D16 64856 D/36 ★ J5 6088-794
Enzyme crosslinking and fixation - by dissolving enzyme and resin in organic solvent coating carrier surface with soln., drying and treating with gaseous fixing agent

MATSUSHITA ELEC IND KK 19.12.79-JP-165867

A96 B04 (18.07.81) C12n-11/06 G01n-27/30

19.12.79 as 165867 (5HM)

Method of crosslinking-fixing enzyme using fixing reagent comprises dissolving enzyme and resin in organic solvent, coating the surface of a carrier with the soln., drying and crosslinking-insolubilising the enzyme by supplying fixing reagent in gaseous phase.

The resin is PVC, PMMA, poly-vinylidene-fluoride, cellulose-acetate cellulose butyrate acetate, cellulose triacetate, etc. The fixing reagent is aldehyde or aldehyde polymer e.g. glutaraldehyde, 2-oxyadipoaldehyde, crotonaldehyde, acrolein, glyoxal, propionaldehyde (polymers). Pref. a high mol cpd. which can react with the fixing reagent by forming a covalent bond is added to the soln. contg. the enzyme and resin to facilitate fixation and decrease the fall of enzyme activity on fixation. Pref. polyethyleneimine, polyornithine, polylysine, polyarginine, etc. is used.

The formed enzyme membrane has excellent adhesion to the carrier. The fixed enzyme has excellent mechanical strength and swelling resistance and can be used repeatedly or continuously for a long time. The fixing reagent is supplied in gaseous phase and the crosslinking-insolubilising reaction is regulated easily by controlling its vapour pressure without changing the enzyme concn. on the carrier. (4pp)

MATU ★ D16 64857 D/36 ★ J5 6088-796
Fixing enzyme to membrane by immersing membrane in enzyme soln. - and crosslinking-insolubilising the enzyme using a vapour fixing agent, e.g. glutaraldehyde

MATSUSHITA ELEC IND KK 18.12.79-JP-165046

A96 B04 (18.07.81) C12n-11/08

18.12.79 as 165046 (5NS)

Method comprises immersing a membrane having fine pores in a soln. contg. enzyme and if necessary other proteins. The membrane is then dried, and the enzyme crosslinked and insolubilised using vapour of fixing reagent. Pref. porous polycarbonate membrane is used as carrier. As fixing reagent glutaraldehyde, 2-oxyadipoaldehyde, crotonaldehyde, acrolein, glyoxal, propionaldehyde and their polymer can be used. Pref. another protein e.g. albumin, polylysine, etc. is combined with enzyme in the soln. to make the fixing reaction easy and prevent fall of enzymic activity at the fixation.

Very thin strong fixed enzyme membrane can be obtd. which can be used repeatedly or continuously for a long time. Large amts. of enzyme can be fixed per unit area of membrane. By using the fixing reagent in vapour phase the crosslinking-insolubilising reaction can be easily controlled through its vapour pressure without changing the enzyme concn. on the membrane.

AJIN ★ D16 64858 D/36 ★ J5 6088-798
Fermentative prepn. of L-serine - by culturing Pseudomonas
variety in culture medium contg. glycine
 AJINOMOTO KK 19.12.79-JP-164101
 B05 E16 (18.07.81) C12p-13/06 C12r-01/38
 19.12.79 as 164101 (5DJ)

The method comprises culturing varieties of *Pseudomonas*, which can produce L-serine from glycine and shows resistance to chloroacetyl serine, carbobenzyloxy serine or glycine hydroxamate, in the culture medium contg. glycine and recovering L-serine accumulated in the cultured liq.

The varieties can be derived from the parent strain of *Pseudomonas rhodomethylfaciens* AJ11261, FERM-P4531 by conventional mutation-inducing means. Examples of the varieties are *P. rhodomethylfaciens* AJ11503, FERM-P5308 (resistible to carbobenzyloxy-serine), *P. r.* AJ11504, FERM-P5309 (resistible to chloroacetylserine), *P. r.* AJ11505, FERM-P5310 (resistible to D-serine and glycinehydroxamate) and *P. r.* AJ11506, FERM-P5311 (resistible to glycinehydroxamate). The culture is practiced aerobically at 25-37 deg.C at pH 5-9 for 2-8 days.

The method can produce L-serine from glycine with high yield. (4pp)

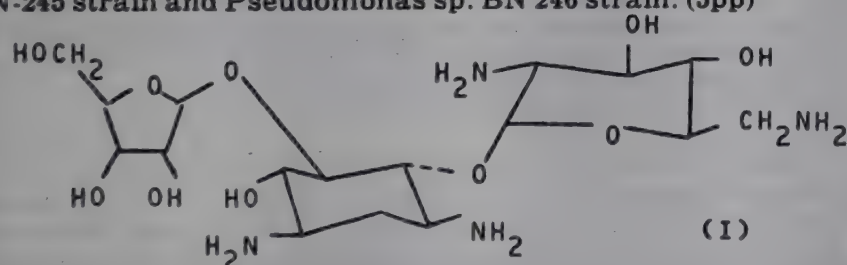
AJIN ★ D16 64859 D/36 ★ J5 6088-799
Fermentative prepn. of L-lysine - by aerobic culture of varieties
of Brevibacterium or Corynebacterium
 AJINOMOTO KK 21.12.79-JP-166463
 B05 E16 (18.07.81) C12p-13/08 C12r-01/13
 21.12.79 as 166463 (5DJ)

The method comprises culturing the varieties which belong to *Brevibacterium* or *Corynebacterium*, can produce L-lysine, show the lower citrate oxaloacetate-lyase activity than that of the parent strains and do not require L-glutamic acid and recovering L-lysine accumulated in the cultured liq.

Varieties which are derived from conventional L-lysine producible strains of *Brevibacterium* or *Corynebacterium* and show the properties as above, can produce L-lysine with higher yield than their parent strains. (5pp)

MEIJ ★ D16 64860 D/36 ★ J5 6088-800
Ribostamycin effective against Gram positive and negative
bacteria - obtd. by culturing Moraxella genus or Pseudomonas
genus bacteria
 MEIJI SEIKA KAISHA 17.12.79-JP-162732
 B03 (18.07.81) C12p-19/50 C12r-01/*
 17.12.79 as 162732 (69KB)

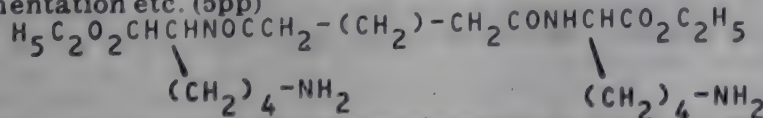
Ribostamycin is produced by culturing Ribostamycin-producing bacteria of *Moraxella* genus or *Pseudomonas* genus and taking out Ribostamycin of formula (I) from the culture mixt. (I) has wide range of antibacterial activity to Gram-positive bacteria and Gram-negative bacteria. Specific bacteria are *Moracella* sp. BN-245 strain and *Pseudomonas* sp. BN 246 strain. (5pp)



AJIN ★ D16 65117 D/36 ★ J5 6090-046
Lysine deriv., useful as phase-inhibitor in fermentation -
produced by condensn. of azelaic acid and lysine ethyl ether
 AJINOMOTO KK 21.12.79-JP-167355
 B05 (21.07.81) A01n-37/18 C07c-103/48
 21.12.79 as 167355 (69HM)

Lysine deriv. of formula (I) and its acid addn. salts are new. Cpd. (I) is produced by condensn. of azelaic acid with lysine ethyl ester in usual manner. Lysine deriv. (I) has strong antiphage action to bacteriophage and is useful for prevention of damage caused by bacteriophage infection in fermentation industry.

The lysine deriv. is used as phage-inhibiting agent, in amino acid fermentation e.g. of L-lysine, L-glutamine acid, L-alanine; nucleic acid fermentation e.g. of inosine, guanosine, or inosic acid; organic acid fermentation e.g. of citric acid or lactic acid, fermentation prodn. of enzyme e.g. amylase or protease, solvent fermentation e.g. acetone butanol fermentation and antibiotics fermentation etc. (5pp)



DAUC ★ D16 65143 D/36 ★ J5 6090-0
Antibiotics DF-446A and DF-446B with antitumour activity - a
prepd. by cultivation Actinomadura strain and recovery
antibiotic from culture medium
 DAICHI SEIYAKU KK 21.12.79-JP-165528
 B04 (21.07.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/46
 21.12.79 as 165528 (33AT)

Antibiotics DF-446A (I) and DF-446B (II) have elemental analysis (I) (as dihydrate): C 57.17, H 6.40, N 1.94; II C 59.90, H 6.3, N, 2.31. The mole wt. of (I) (as dihydrate) is 659 ± 36; (II) 659 (b mass spectrum) Molecular formula of (I) is C₃₃H₄₁NO₁₃·2H₂O and of (II) is C₃₃H₄₁NO₁₃ m.pt. of (I) is (as dihydrate) 149-150 deg.C; II 152-156 deg.C (dec.) Specific optical rotation of (I) and IR absorption spectra and NMR spectrum are also given.

Prod. of antibiotics DF-446A and/or DF-446B, comprise cultivating a strain of *Actinomadura* capable of producing DF-446A and/or DF-446B in a medium and recovering the antibiotic.

Examples of the microorganisms are *Actinomadura* sp. No.4466 (FERM-P5254) and mutant thereof. The cultivation is effected in a medium comprising a carbon source, a nitrogen source and an inorganic salt at 20-35 deg.C, pref. 27-30 deg.C, for 50-170 hours under aerobic conditions.

DF-446A and DF-446B have antibacterial activity against gram-positive bacteria and anti-tumour activity. (12pp)

FUJI ★ D16 65292 D/36 ★ J5 6091-07
Enzyme carrying readily dispersible chopped glass strands
pref. using water-soluble binder e.g. opt. modified starch
 FUJI FIBREGLASS KK 26.12.79-JP-168135
 A87 F06 (23.07.81) D04h-01/42 D06m-16
 26.12.79 as 168135 (172AT)

Enzyme or microbe is applied, before or after chopping, to glass strands coated with processing agent. The strands are aged at optimum temp. so that the processing agent may be decomposed biochemically and made readily soluble in aq. medium.

The processing agent is a binder imparting good bundling property to glass strands and is pref. water soluble e.g. opt. modified starch, polyvinyl alcohol, gelatine or polyacrylic acid type polymers. The enzyme is selected according to the type of binder used and suitable for starch and polyvinyl alcohol are alpha- (beta-, gamma-, iso-) amylase, lipase, lactase, glucoamylase, etc. The microbes are yeast, bacteria, algae, etc. which produce enzymes.

The chopped glass strands are readily dispersed in aq. medium in filaments and the time required for disintegration of the strands is reduced. (4pp)

JAAT D16 48519 X/26 = J8 1034-014
Polypropylene reinforced, high molecular composite membranes
- mfd by graft polymerisation initiated by ionising radiation
 JAPAN ATOMIC ENERGY RES 07.10.74-JP-115400
 A88 J01 (D15) (07.08.81) *J51052-489 C08j-05/18 + C08f-255/02
 C08j-07/18

07.10.74 as 115400 (KB)

Monomer liqs. (e.g. styrene) contg. radical polymerisation initiators (e.g. benzoyl peroxide) are added to polypropylene reinforcing material; irradiating with less than 1 M rad of accelerated electrons to initiate graft polymerisation less than 60 deg.C to form carbon-carbon bonds between polypropylene and monomers; and heating to above the decompsn. pts. of the initiators (e.g. 80 deg.C) after the dia. of expansion of polypropylene has reached more than 5% in order to terminate the polymerisation.

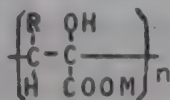
Material is used for ion exchange membrane, back permeation membrane, membrane for artificial kidney use, catalyst membrane for yeast-contg. industry, org. glass, etc. It has large mechanical and chemical strengths. (J51052489) (4pp)

NISC D16 15788 C/09 = J8 1034-219
Mfr. of crosslinked water-absorbing resin - by reacting
poly:hydroxy-acrylate polymer with poly:amine-polyamide-
epichlorohydrin addition products
 NISSAN CHEM IND KK 05.07.78-JP-081538
 A26 J01 + P21 (A97) (08.08.81) *J55009-617 C08g-81/02 + A41b-13/02 B01d-15/08 C12n-01 G01n-31/08
 05.07.78 as 081538 (BZ)

A method of manufacturing a water-insoluble and water-absorbable cross-linked resin in which a soluble polyhydroxyacrylate polymer of the formula (where R is H, CH₃, C₂H₅, C₂H₇, or C₄H₉, M is hydrogen or an alkali metal of the group one in the periodic table, and n is 10-1,500), and a polyamine-polyamide-epichlorohydrin addition product are subjected to a cross-linking treatment at ordinary temperature for less than 24 hours.

The water-insoluble and water-absorbable cross-linked resin which is capable of absorbing approx. 50 g/l g of resin, can be manufactured into a film form by flowing an aq. solution of the

components onto a glass or metal plate and then by cross-linking it or by impregnating the aqueous solution into woven or unwoven fabric and then cross-linking it. Thus, the resin is effectively applicable to the fields of various membrane and other materials for separation and refining purposes, medium for cultivation of microorganisms or plants, etc. (J55009617) (3pp)



KIKK ★ D16 65326 D/36 ★ J8 1034-275
Fermented fruit drink prepn. - using additive prepd. by mixing fruit with ethanol followed by distn. to improve flavour (J5 19.8.80)

KIKKOMAN CORP 12.12.78-JP-152725
(08.08.81) C12g-01

12.12.78 as 152725 (22PW)

Fruit is mixed with ethanol followed by distn., and thus obtd. product is added to the material for preparation of fermented fruit drink. Flavour of the drink is improved. (J55081580) (7pp)

AMAN D16 83415 Y/47 = J8 1034-276
Isoamylase prodn. by culturing *Aerobacter aerogenes* - on medium contg. starch, minerals, glutamic acid and urea

AMANO PHARM KK 05.04.74-JP-037880
(08.08.81) *J50129-788 + C12n-09/44 C12r-01/*

05.04.74 as 037880 (38NS)

Aerobacter aerogenes was cultured on a medium contg. 1% sol. starch and minerals such as K₂HPO₄, KH₂PO₄, MgSO₄·7H₂O, and FeSO₄·7H₂O added with 0.45% glutamic acid and 0.5% urea to produce isoamylase. The microbe was also cultured on the above medium added with inorganic N salt such as (NH)₄SO₄ at 0.5%.

In an example, *A. aerogenes* AHU 1340 was cultured with shaking at 30 ± 1 deg. for 72 hrs. on a medium contg. sol. starch 1, K₂HPO₄ 0.05, and urea 0.5% plus 15 ml. of concd. liq. of glutamic acid fermentation (contg. 30% glutamic acid). Isoamylase activity of the culture filtrate was 772 units/ml. (J50129788) (4pp)

AMAN D16 27428 A/15 = J8 1034-277
Leucine amino-peptidase purification - by treating crude prepn. contg. proteinase with anionic detergent soln. to inactivate proteinase

AMANO PHARM KK 19.06.74-JP-069169
B04 (08.08.81) *J50160-472 + C12n-09/48 C12r-01/66

19.06.74 as 069169 (38BZ)

Crude leucine aminopeptidase prepn. contg. proteinase is treated with 0.01-1.0% of an anionic detergent soln. at 0-50 deg.C. and pH 4.5-6.5 for more than 3 min to inactivate the proteinase.

In an example, 5g crude enzyme prepn. of *Aspergillus niger* ATCC 16889 contg. leucine aminopeptidase 89,000 and proteinase 3500 units/g was dissolved in 100 ml water and the soln. was added with 1 ml. of 5% of Na lauryl sulphate, adjusted to pH 5.5., warmed to 37 deg.C. for 30 min and cooled to 5 deg.C. The soln. was added to 300 ml. cold Me₂CO (-15 deg.C) to ppt. 2 g leucine aminopeptidase. The purified enzyme contained 200,000 units of leucine aminopeptidase/g and no proteinase. (J50160472) (7pp)

SEIS D16 31913 C/18 = J8 1034-278
Ubiquinone Q10 prodn. - by culturing strain of *Rhodopseudomonas* on nutrient medium contg. biotin and thiamine

SEISAN KAIHATSU KAGAKU 11.09.78-JP-111934
B05 (08.08.81) *J55039-730 C12p-07/66 C12r-01/*

11.09.78 as 111934 (52NS)

Prodn. of ubiquinone Q10 comprises culturing a ubiquinone Q10 producible strain of *Rhodopseudomonas* on a nutrition medium contg. more than 5 micro mole of biotin and 0.2 micro mole of thiamine, and recovering the accumulated ubiquinone Q10 from the organism. Industrial scale prodn. is possible. The yield is raised considerably by addn. of biotin and thiamine.

The organism is pref. *Rhodopseudomonas capsulatus* (FERM-P 879) which may be cultured on a conventional synthetic or natural medium contg. C source, N-source, mineral, biotin, thiamine and nicotinic acid, at 20-40 deg.C. and pH 5-9. (J55039730) (4pp)

SHOW D16 49257 V/27 = J8 1034-279
L-tryptophan prodn. - from anthranilic acid using mutant of *Bacillus subtilis*

SHOWA DENKO KK 17.06.72-JP-060035

B02 (08.08.81) *J49020-391 + C12p-13/22 C12r-01/12

17.06.72 as 060035 (DJ)

L-tryptophan (I) was produced from anthranilic acid (II) by a mutant of *Bacillus subtilis* which is resistant against 5-fluorotryptophan.

In an example, strain SD-9 was cultured with shaking at 29 deg.

in a medium (pH 7.2) contg. glucose 6, yeast ext. 0.2, NH₄Cl 0.5, NH₄NO₃ 0.1, Na₂SO₄ 0.2, MgSO₄·7H₂O 0.5, K₂HPO₄ 0.3, KH₂PO₄ 0.1, and CaCO₃ 2% and soln. of minor element 1 ml/l. (II) was added to the broth at 0.3%, 24 hr. later. Accumulation of (I) was 2100 and 2600 mg/l., 72 and 96 hr. later the (II) addn. (I) in the culture supernatant was adsorbed on Dowex 50W (H), eluted with 1 N NH₄OH, adsorbed on active C, eluted with hot EtOH, and crystd. by concn. under the reduced pressure; 2.4g from 1 l. broth. (J49020391) (3pp)

EISA D16 44308 V/24 = J8 1034-280
Alpha-amino substd penicillin prodn. - from 6-amino penicillanic acid and acyl donor in presence of *Flavobacterium* extracts

EISAI KK 08.06.72-JP-056504

B02 (08.08.81) *J49014-687 + C12p-37/04 C12r-01/20

08.06.72 as 056504 (DJ)

Alpha-amino substd. penicillin was prepd. from 6-amino penicillanic acid (I) or its salt and an acyl donor

H₂N-CR₁R₂-COR₃ R₄-C₆H₄-(CHR₅)_n - where R' is R₄ in which R₄ is H, -OH, or lower alkoxy, R₅ is H, lower alkyl or -OH, and n is 0 or 1, R₂ is H or lower alkyl, or R' and R₂ form alicyclic residue of C₅-6, and R₃ is lower alkoxy or NH₂, in the presence of cells, extracts or enzymes sepd. from *Flavobacterium* EF 44-102 (III FERM-P 343).

A mixt. of 1.75 gdried cells of III, 250 ml. H₂O, and 2.5g I was gradually added with 8.75g Me-D-2-NH₂-cycohexylacetate HCl, and reacted at 27 deg., pH 6.2, for 5 hr. D-alpha-NH₂-cyclohexyl-Me- penicillin produced was sepd. from the supernatant with ion exchange resin and crystallised; 2.10 g (yield 51.1%). From Me-DL-2-NH₂-2-(p-phenol)-acetate HCl, DL-alpha-NH₂-p hydroxybenzyl penicillin was prepd. (J49014687) (4pp)

UNVO D16 23857 Y/14 = J8 1034-569
Normal-paraffins sepn. from mixts. contg. iso paraffins and aromatics - by selective adsorption and two-stage desorption NL280377)

UOP INC 24.09.75-US-616470

E17 H04 J01 (11.08.81) *DE2640-365 C07c-07/13 C07c-09/14

24.09.76 as 114609 (195RH)

The process comprises selective adsorption on a zeolite and subsequent desorption with a desorbing agent, in which two-stage desorption is used. The first desorbing agent (A) displaces the aromatic hydrocarbons from the surface of the zeolite, while the second (B) displaces the n-paraffins from the pores.

Used for treatment of 6-30C hydrocarbon mixts. e.g., a 10-15C kerosene fraction, esp. to obtain pure n-paraffins for biochemical prodn. of proteins for animal or human consumption. Concn. of aromatics in the n-paraffin extract can be reduced to less than 100 ppm., and the need for pre-treatment e.g. by acid washing or hydrogenation to remove aromatics is eliminated. (J52083302) (17pp)

VRIE- ★ D16 65361 D/36 ★ NL 8000-527
Promoting formation of hybrid cells or hybridoma antibodies - by adding endothelial cells and/or supernatant(s)

STICHTING VRIENDEN 29.01.80-NL-000527

B04 (17.08.81) C12n-05/02

29.01.80 as 000527 (367HM)

Processes are claimed for promoting (a) the hybridisation of cells in vitro and the prodn. and secretion of substances formed by the resulting hybrid cells, and (b) the prodn. of monoclonal antibodies in vitro using a hybridoma technique. The processes comprise adding endothelial cells and/or their supernatants to (a) the hybrid culture or (b) the hybridoma culture.

The processes pref. comprise adding human endothelial cells (HEC) or a HEC supernatant. In process (b), the hybridoma culture is pref. obtd. by fusion of myeloma cells with lymphocytes derived from a human or animal immunised with the desired antigen.

The endothelial cells (or supernatants) increase the no. of hybrids obtd. by fusion, increase yield of clones isolated by the limiting dilution method, and extend the survival time of hybridomas. (12pp)

PROC- ★ D16 65369 D/36 ★ SE 8007-594
Alcohol prodn. from mash containing sugar - involves connected bio-reactors for making ferment and yeast (BR 4.6.81)

PROCESS ENG CO SA 03.12.79-CH-010697

(06.07.81) C12p-07/06

29.10.80 as 007594 (1432PW)

Two stage method for continuous fermentation of alcohol from sugar contg. mashes has production of alcohol and production of yeast in separate coupled bioreactions. The yeast from the fermenter vessel after separation of alcohol, pref. in a vacuum evaporator is recirculated via the yeast growing vessel. 85-98 vol.% of the mash is used for alcohol production and 2-15% is added, with nutrients, to the yeast growing vessel

bacterial contamination and reduced fermenting potential. Provisional Basic advised week D30. (75pp)

KIAU = ★ D16 65494 D/36 ★ SU-787-455
Estimation of live cells in microbial biomass - by treating with dye, pptn. of cells and observing colour adsorption
KIEV AUTOM INST 14.02.79-SU-727515
(17.12.80) C12b-01
 14.02.79 as 727515 (314VE)

The live microbial cells are estimated by adding a dye to biomass; separating the cells from the culture medium; and observing the cells with adsorbed dye. The method is quick and simple.

In an example, a 20g. sample is taken of culture of *Candida tropicalis*. 5mls. of 1% aq. methylene blue are added and stirred and 5 mls. of Fleming liq. are added. The cells are settled out in 30 secs. and are observed in a photocolorimeter. Bul. 46/15.12.80. (2pp)

HAEM = ★ D16 65496 D/36 ★ SU-787-463
Prodn. of fungal thrombus dissolving enzyme - by culturing *Trichothecium roseum* strain, sepn. of antibiotic by-prod., pptn. of enzyme with cold ethanol, cold water extrn. and purificn.
HAEMATOLOGY BLOOD(MOSU) 26.05.78-SU-622908
B04 (17.12.80) C12d-13/10
 26.05.78 as 622908 (314VE)

A thrombolytic enzyme is obtd. by culturing *Trichocetium roseum* fungus; extracting the associated trichocetin antibiotic using an organic solvent e.g. chloro for chloroform; and ppting. and purifying the desired enzyme. The latter stage is carried out by: pptn. with 96% ethanol at -4 to -7 deg.C and pH 6.8-7.0; centrifuging the ppt. at -3 to -2 deg.C; dissolving the ppt. in cold water in an amt. 1.5-1.55g. per 10-10 mls. of water; and purifying at 0-1 deg.C. The purificn. stage pref. involves clarifying, dialysis against distilled water and sterilised filtration. (2pp)

ASMI = ★ D16 65497 D/36 ★ SU-787-464
Microbiological prodn. of fungal ribonuclease - includes culturing *Aspergillus clavatus* strain sepn. of guanyl-specific and non-specific prods. and chromatographic purificn.
AS USSR MICROORGANI 30.11.78-SU-691466
B04 (17.12.80) C12d-13/10
 30.11.78 as 691466 (314VE)

Ribonuclease is obtd.: by culturing *Aspergillus clavatus* in a complex nutrient medium; separating the resulting micelles by filtration; drying under lyophilic conditions; extracting the intra-cell ribonuclease with a buffer at pH 4.0-9.0; and single-stage purifying the intra-cell and extra-cell ribonuclease, the latter having been pted. from the filtered culture medium.

The prod. is chromatographed on DEAE-cellulose and then sepd. into non-specific and guanyl-specific ribonuclease on QAE-Sefadex. The non-specific prod. is then subjected to a gel filtration on Sefadex G-75 and chromatographed on QAE-Sefadex. The guanyl-specific prod. is chromatographed on KM-cellulose and crystallised.

The method results in a good yield of ribonuclease and permits separate recovery of the non-specific and guanyl-specific types. Bul. 46/15.12.80. (2pp)

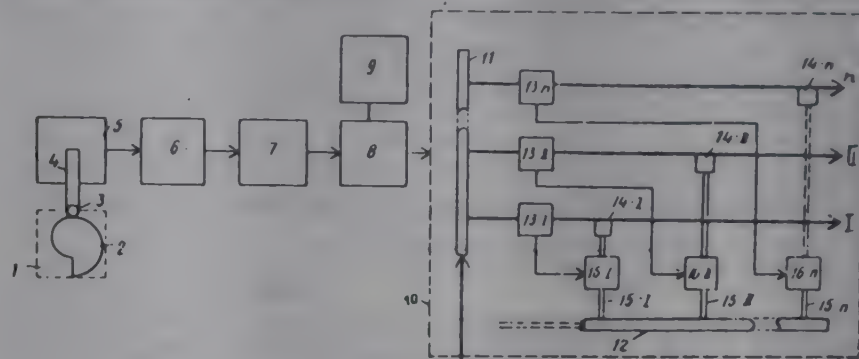
MOMA = ★ D16 65498 D/36 ★ SU-787-465
Continuous prodn. of fruit wine - includes fermentation of clarified fruit juice with specified yeasts strain under aeration, blending and heat treating part of blend stream
MOSC MAGARACH WINE 12.02.79-SU-726160
(17.12.80) C12g-01
 12.02.79 as 726160 (314VE)

Fruit wine with improved organoleptic properties is obtd. by contacting the juice with yeasts whilst aerating it; blending the resulting wine; dividing the blend into a major and a minor streams; heat treating the latter at 40-45 deg.C whilst holding the former at 15-1g deg.C; and re-mixing and bottling. A good quality wine is obtd. in a short process.

In an example, sulphited and clarified apple juice is pasteurised and fermented with *Saccharomyces ellipsoideus*-101 yeast. It is then pasteurised at 85 deg. C and fermented with a cherry-type yeast whilst being aerated with 0.5 vols. of air per min. The wort is then blended to give an alcohol content of 18 vol.% and sugar content of 5%. A third of the blend is then held at 0 deg.C for 30 days whilst the remainder is held at 15 deg.C. The two portions are then re-mixed and bottled. Bul. 46/15.12.80.

INPR = ★ D16 65499 D/36 ★ SU-787-467
Must fractionation and sulphur trioxide addn. control appts. - has change of must concn. signalled by cam action inducing coil EMF for signal comparison with setting to control valves
IND PROC AUTOM RES 12.02.79-SU-727500
T06 (17.12.80) C12g-01/02
 12.02.79 as 727500 (840GW)

Flowing grape must fractionation control appts. for a plant including the fractionation unit (10) and contg. a control system with a refractometer unit (1), amplifier (7) and setter (9). It has greater accuracy when adding sulphur trioxide during fractionation in primary wine making plants. By introducing a cam (2), roller (3), core (4), inductance coil (5), demodulator (6) and control unit (8), electric contacts are eliminated and a 7 hr. wait before adding the sulphur trioxide is avoided. Bul. 46/15.12.80. (3pp Dwg. No. 1)



high activity.

In an example, 1000g. $\text{NH}_4\text{H}_2\text{PO}_4$, 600g. K_2SO_4 , 1100 mls. molasses and 4l. of yeast autolysate are mixed with 90l. of water. The pH is adjusted to 6.6-6.8 with 20% NaOH and the vol. brought to 100l. The medium is sown with a *Streptococcus lactis* strain culture and grown for 15-20hrs. The nisin yield is 91mg./l. Bul. 46/15.12.80. (2pp)

ABHE = ★ D16 65504 D/36 ★ SU-787-472
Monitoring activity of *Actinomyces griseus* 15 biomass - by measuring optical density of test culture medium film in specific absorption bands

AS BELO HEAT-MASS 05.02.79-SU-753370
(15.12.80) C12k-01/10

05.02.79 as 753370 (314VE)

The activity of a culture liquid biomass of *Actinomyces griseus* 15 is controlled by monitoring the optical density of acidified and dried test culture medium film on CaF_2 disc in the absorption bands of 1055 and 1660 per cm. A fast and accurate analysis is provided. The activity is read off on a calibrated scale.

Typically, 20 mls. of culture medium are acidified with HCl to pH 2.5, held 20 mins. and a native soln. then obtd. by filtration. A dry film is then formed on a CaF_2 substrate by drying at 37 deg.C. The thin film is then optically analysed as above. Bul. 46/15.12.80. (2pp)

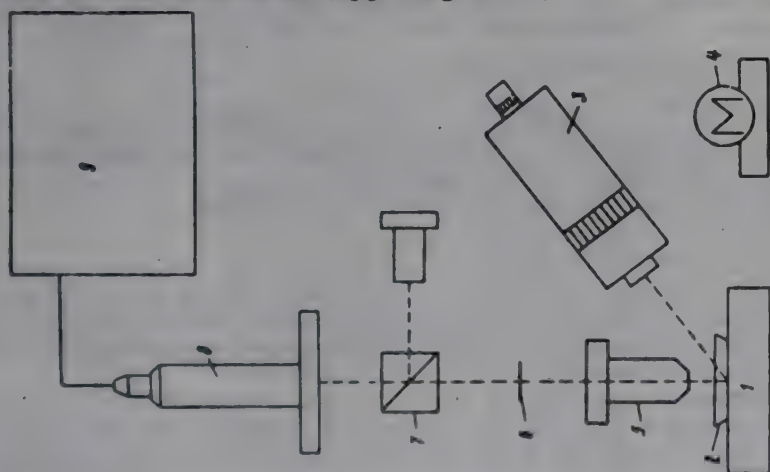
MOSU ★ D16 65565 D/36 ★ SU-787-993
Microorganisms colony growth recorder - determines reflection coefficient using slotted diaphragm between objective and photomultiplier

MOSCOW LOMONOSOV UNIV 28.06.78-SU-640281
S03 (15.12.80) C12k-01 G01n-33/48

28.06.78 as 640281 (89WD)

Improved accuracy of monitoring microorganisms colony growth parameters is ensured by determining of the reflection coefficient of light from the colony. The diaphragm in the optical system has a curved slot between the objective and the photomultiplier, while the colony is in the plane perpendicular to the axis of the optical system.

The investigated colony in Petri dish 2 is placed on the stage 1 controlled by the drive 4 and the illuminator 3 is switched on. The reflected light passes through the objective 5, diaphragm 6 and prism 7 on its way to the photo-multiplier 8 connected to the recorder 9. Bul. 46/15.12.80. (3pp Dwg. No. 1)



ALOR = ★ D16 65566 D/36 ★ SU-787-994
Human T and B lymphocyte differentiation - by rosette formation reaction with sheep or mouse erythrocytes using carbamoyl-aziridine stimulator

AS LATV ORG SYNTH(RIME =) 08.01.79-SU-711590
B04 C03 S03 (15.12.80) G01n-33/48

08.01.79 as 711590 (114VE)

Differentiation of human T- and V-lymphocyte (in clinical diagnosis) includes rosette-formation reaction with sheep or mouse erythrocytes. Accuracy is increased by using 2-carbamoyl-aziridine rosette-formation stimulator.

In an example, a patient with acute leukemia (leucocyte count 9600, 73% lymphblast) is tested by previous and proposed method (using 1 hr pre-incubation with 0.001% 2-carbamoyl aziridine) respectively to give T-lymphocyte content 9 and 32%. Bul. 46/15.12.80. (2pp)

ALOR = ★ D16 65567 D/36 ★ SU-787-995
Human T and B lymphocyte differentiation - by rosette formation reaction with sheep or mouse erythrocytes using trimethyl-hydrazinium propionate as stimulator

AS LATV ORG SYNTH(RIME =) 08.01.79-SU-711591
B04 C03 S03 (15.12.80) G01n-33/48

08.01.79 as 711591 (114GW)

Differentiation of human T- and B-lymphocyte (in clinical

diagnosis) involves rosette-formation reaction with sheep or mouse erythrocytes. Accuracy is increased by using 3-(2,2,2-trimethyl-hydrazinium)-propionate rosette-formation stimulator.

In an example, patient with chronic lympholeucosis with IgM paraprotein (leucocyte count 33,000, 81% lymphocyte) is tested by previous and proposed method (using 0.2% stimulator), respectively to give: E-rosette content 27 and 20%; M-rosette content 27 and 80%. The patient is assessed to have chronic lympholeucosis from B-lymphocyte pathology. Bul. 46/15.12.80. (2pp)

EPID = ★ D16 65570 D/36 ★ SU-787-998

Activation of lysozyme liberated from mite - by pretreating with constant magnetic field before sepg. lysozyme to increase activity

EPIDEMIOLOGY MICROB 28.02.79-SU-734617

B04 S03 (15.12.80) G01n-33/48

28.02.79 as 734617 (114VE)

Method of activation of lysozyme liberated from mites by magnetic field (e.g. for medical use esp. magnetobiology) increases degree of lysozyme activity (by 3-4 fold) by pretreating mites for 1-48 hrs under constant magnetic field of strength 25-600 oersted prior to lysozyme release.

In an example, lysozyme is obtd. from *M. ysodeikticus* cells by control, previous and proposed method respectively to give average lysozyme activity. 6.7, 15.2 and 27. Bul. 46/15.12.80. (2pp)

KIFO = ★ D16 65609 D/36 ★ SU-789-102

Concentrating granular malt in alcohol prodn. - using boiler into which grains are loaded, and through which hot gas heat-carrier is passed

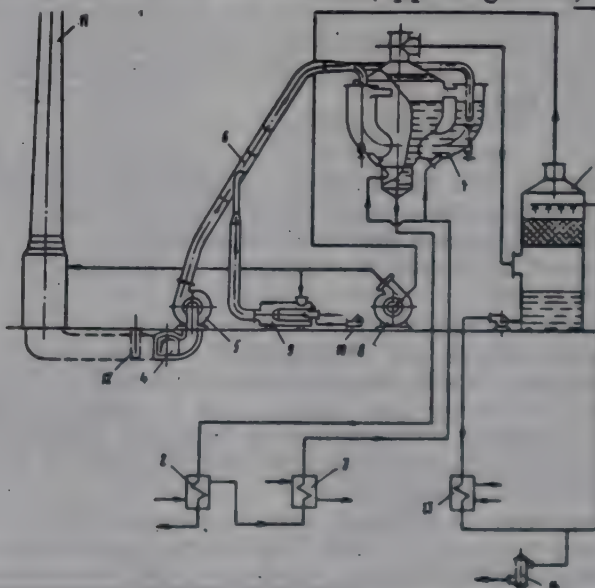
KIEV FOOD IND TECHN(UFOO =) 15.12.77-SU-567869
(15.12.77-SU-554663)

(23.12.80) A231-03/18 B01d-01/14 C12f-03

15.12.77 as 567869 (29MI)

Method for concentrating malt grain in which the grain is boiled by passing a high-temperature heat carrier through, and purifying the resulting steam/gas mixture. Product quality is increased, with fuel economy and reduced contamination of the surrounding medium, by heating the grain, prior to boiling, in two stages: (a) at 30-32 deg. C and (b) at 70-72 deg. C.

After purifying and making use of the heat, the flow of gases is divided into two parts, i.e. 60-62% is mixed with high-temperature heat-carrier, plus flow of low-temperature heat-carrier supplied from below, to give a final flow temperature of 450-500 deg. C. which is sent on to the boiler. The other part exits to the atmosphere. The apparatus (1) has heat source (3), boiler and scrubber (7) linked by pipes. An injector/mixer (6), fan (8) and additional heat source (11) and heat-exchangers (13) are fitted. The top part of the scrubber and its adjacent pipework forms a recirculation circuit via the fan, heat-source, etc., while the extra heat source is linked to the injector-mixer and fan, with heat-exchanger in series with the boiler. (4pp Dwg.No.1)



MOGP = ★ D16 65618 D/36 ★ SU-789-114

Prepn. of surface soluble antigen of intestinal microbe - by extrn. of dried biomass with sodium chloride soln. before dialysis and Schigella zone fraction sepn. by fractionation

MOSCEPIDEM CARDIOL 02.11.78-SU-680553

B04 (23.12.80) A61k-39/10

02.11.78 as 680553 (114GW)

Prepn. of surface soluble antigen of intestinal microbe gp(for applied immunology) includes extrn. of dried biomass with NaCl soln. sepg. extract by centrifuging and dialysing before sepg. out final prod. In order to separate *Schigella Zonne* protective

fraction, the extract is sepd. at 4-6 deg. C and dialysed against 0.15% NaCl soln. The dialysate is centrifuged at 4-8 deg. C, and the prod. is sepd. with mol.wt. 1.6-2 million Dalton from supernatant liquid by fractionating on ultragel. The proposed method gives 3.2-3.9% yield (on dry biomass). (3pp)

AMPO = ★ D16 65619 D/36 ★ SU-789-115
Prepn. of antigen for viral gastroenteritis diagnosis - by culturing monkey virus, centrifuging-off infected cells and extracting with water to increase haemagglutination activity

A MED POLIOMYEL VIR 12.06.78-SU-628370

B04 P31 (23.12.80) A61b-10 A61k-39/22

12.06.78 as 628370 (114VE)

Prepn. of antigen for diagnosis of virus gastroenteritis by cultivation of monkey virus SA-11 in cell culture and subsequent sepn. of virus from infected cells increases hemagglutination activity of antigen by sepg. off the infected cells from the nutrient by centrifuging and adding (to the sediment) 1/20-1/25 pts.vol. water (on 1 pt. vol. sediment) and sepg. off the liquid fraction.

The proposed method does not need special equipment and is widely available. The prepate may be stored for one month at +4 deg. C without loss in its relatively high activity (titre reaches 1:160-1:320 to lower antigen expenditure). Bul.47/23.12.80. (2pp)

KHBE = ★ D16 65620 D/36 ★ SU-789-116
Agglutinating O-serum for beer-brewing microbiological control - is prepd. by immunising animal-producer with poly antigen compsn. contg. boiled serological bacterial prepn.

KHARK BEER NON-ALCO 10.07.78-SU-654119 (10.07.78-SU-643067)

(23.12.80) A61k-39/40

10.07.78 as 648067 (114GW)

Prepn. of polyvalent agglutinating O-serum for microbiological control in beer-brewing industry involves immunising animal-producer with increasing dosages of polyantigen prepn (obtd. by mixing O-antigens sepd. from various serological gps. of one bacterial type and boiling for 2-2.5 hrs.). The immunisation is in 2 cycles with four injections each cycle and 12-14 days interval between cycles. Injections are administered every 5-6 days. The first injection is subcutaneous and the rest intravenous.

To prepare O-serum for lactobacteria identification the producer is immunised with lactobacteria O-antigen of B,C,D and E serological gp. For acetobacter identification the immunisation is with prepn. contg. O-antigens from Acetobacter aceti, suboxydaus and mesoxydaus. The prepd. O-serum allows quick assessment (20-30 mins) of bacteria in foodstuff industry, thus allowing immediate rectification. (3pp)

ORTH D16 06232 D/05 = US 4284-412
Automatic counting of specific lymphocyte types - by selective labelling with antibody having fluorescent marker

ORTHO DIAGNOSTICS 13.07.79-US-057482

B04 S03 T05 P31 (S05) (18.08.81) *EP--22-670 G01n-21/64 G01n-33/48

13.07.79 as 057482 (1358HM)

An automated method for identifying and counting cells of lymphocyte subclasses comprises selectively tagging cells by incubating a sample with an antibody reactive with distinct antigenic determinants on the cell surfaces, lysing red cells, and passing the sample a cell at a time through a focussed optical excitation beam while detecting light scattered by and emitted from the cells.

Cells of a partic. subclass are differentiated on occurrence of a set fluorescence response from the antibody. The sample may be of anticoagulated but otherwise unprocessed whole blood, or blood may be centrifuged and the buffy coat layer isolated and used as the sample. The excitation beam may be provided by an argon laser. (11pp)

USSH ★ D16 65903 D/36 ★ US 4284-537
Conjugates of streptococcal M protein fragments with poly:lysine are highly immunogenic and give type specific antibodies against group A streptococci

US SEC OF HEALTH 03.07.80-US-165619

B04 (18.08.81) A61k-39/07

03.07.80 as 165619 (949HM)

The conjugation of M24 protein particle CB6 and/or CB7 with polylysine is new. The prod. is a conjugation antiserum against animal streptococcus infection. Pref. the reactants are subjected to extended dialysis. Pref. conjugation is effected by stirring the reactants for 24 hrs. Carbodiimide may be used for conjugation.

The conjugates are highly immunogenic, producing type specific opsonic antibodies against group A streptococci. The vaccine is thus useful for preventing rheumatic fever triggered by group A streptococcal infections. (4pp)

RESE ★ D16 65911 D/36 ★ US 4284-552
Coenzyme/A synthesising protein complex - prepd. from baker's yeast for cancer diagnosis test

RESEARCH CORP 17.07.79-US-058143 (26.04.78-US-900125)

B04 (18.08.81) C07g-07

17.07.79 as 058143 (1248HM)

Prepn. of coenzyme A-synthesising protein complex (I) from baker's yeast involves first lysing the yeast cells and then sepg. the solid (free from t-factor) from the liq. fraction. Then treating the solid to solubilise proteinaceous material other than (I), and then contacting the residual solid with the first liq. fraction, contg. t-factor, to solubilise it. The t-factor is the yeast fraction of mol. wt. 400-1000 that solubilises insoluble (I) in presence of C ions.

The (I) is obtd. without the use of volatile and inflammable reagents. It has a reduced content of other proteinaceous materials and is obtd. by a shorter process than previously used, it is storage stable and obtd. in high purity and free from proteolytic enzymes. The (I) can be lyophilised and stored with only minimum loss of activity. It is esp. suitable for use in a test for the early diagnosis of cancer as described in US 4160817. (13pp)

UYNC- ★ D16 65912 D/36 ★ US 4284-553
Reversible covalent immobilisation of proteins to inorganic oxide - by silanising then succinylation of the matrix, treating with thionyl chloride then mercapto-acid and reacting with protein amino gp.

N CAROLINA UNIV 20.06.80-US-161645

B04 (18.08.81) C09c-03/08 C12n-09/96

20.06.80 as 161645 (949HM)

The reversible covalent immobilisation of proteins comprises first activating the surface of an inorganic oxide material. This is effected by silanising and succinylating the oxide to give a succinamidopropyl-surface. This is treated with thionyl chloride under anhydrous conditions to give the acyl chloride deriv., which is then reacted with 3-mercaptopropionic acid or mercaptoacetic acid under anhydrous conditions. The obtd. activated surface is then treated with a protein having a reactive amino gp.

The prepn. of a material having an activated surface as above is independently claimed, the activated material finally being dried. Pref. oxide materials are siliceous, esp. porous glass beads or porous silica. Contact with the protein is pref. at pH5-8. The protein may be mobilised by cleavage with hydroxylamine.

The dried, activated material may be stored for extended periods without loss of reactivity with proteins. The remobilisation of the protein is effected under very mild conditions, leaving a portion of the attaching chain bonded to the free protein. This enables the investigation of conformational changes or steric hindrance directly related to the immobilisation procedure. The effect of the microenvironment of the matrix surface can thus be eliminated, so that the effects of partitioning and diffusion can be separated experimentally from intrinsic changes in specific rate constants. (12pp)

SCHD D16 53767 C/31 = US 4284-720
19-Hydroxy-androstane or pregnane steroid prepn. - by fermenting 10-methyl cpd. with Nigrospora strain, used as 19-nor-steroid intermediate

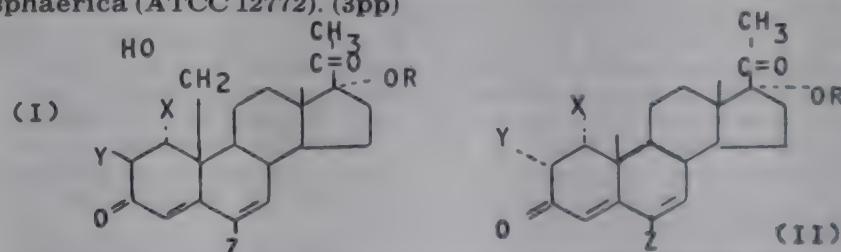
SCHERING AG 12.01.79-DE-901564

B01 (18.08.81) *EP--13-405 C12p-33/06

14.01.80 as 112683 (982PW)

Mfr. of a 19-hydroxy steroid of formula (I) comprises fermenting a 10-methyl steroid of formula (II) with a fungal culture of the genus Nigrospora and isolating (I).

In the formulae, X and Y are each H or together form a C-C bond or a methylene gp.; Z is H, F, Cl or CH₃; and R is H or 1-8C acyloxy. Specifically the fungal culture is of Nigrospora sphaerica (ATCC 12772). (3pp)



SAGA D16 73469 C/42 = US 4284-721
Di:peptide prodn. in presence of immobilised protease - in water immiscible solvent, from protected aspartic acid and phenylalanine ester

SAGAMI CHEM RES CENTRE (AJIN TOYJ) 03.04.79-JP-040170

B05 (18.08.81) *BE-882-603 C07c-103/52 C12p-21/02

01.04.80 as 136347 (982PW)

Mfr. of a dipeptide from an N-substd. aspartic acid and a

phenylalanine lower alkyl ester comprises reacting the aspartic acid and the ester in an organic solvent immiscible with water in the presence of a water-contg. immobilised metallo-proteinase, so as to effect coupling.

Pref. the substit. on the N-substd. aspartic acid is a urethane-type substit., (p-methoxy)benzyloxycarbonyl gp., or t-butoxycarbonyl gp. The metallo-proteinase is esp. thermolysin or thermoase.

Loss of materials due to hydrolysis of phenylalanine alkyl ester is reduced giving improved yield and redn. in cost. (7pp)

CORP ★ D16 65983 D/36 ★ US 4284-722
Heat, and acid-stable alpha-amylase - prepd. by culturing bacillus stearothermophilus

CPC INTERNATIONAL INC 13.11.79-US-093407 (19.04.76-US-678513)

(D17) (18.08.81) C12n-09/28 C12p-19/14

13.11.79 as 093407 (+ 2.2.77, 16.8.78-US-764923, 934135) (478AT)

Heat and acid-stable alpha-amylase (I) from a Bacillus stearothermophilus has optimum pH 4-5.2 and is capable of: (a) retaining at least 70% of its initial (I)-activity When kept for 10 min. at 90 deg./pH 6 in the absence of added Ca²⁺; (b) retaining at least 50% of its initial (I)-activity when kept for 60min. at 90 deg./pH 6 in the absence of added Ca²⁺; and (c) retaining at least 50% of its initial (I)-activity when kept for 10 min. at 80 deg./pH 4.5 in the presence of 5 mM-Ca²⁺.

(I) is prepd. by culture of B. stearothermophilus ATCC 31195, 31196, 31197, 31198 or 31199 for 1-5 days at 50-70 deg./pH 5-9 on a medium contg. 1-25% pref. 10-20% w/V carbohydrate (pref. (opt. partially hydrolysed) starch), and conventional N sources and minerals, etc.

(I) is stable to both heat and acid, and is useful in hydrolysing and/or liquefying starches. (I) may be used in conjunction with other acid-stable amylases (glucoamylase, etc.) in soluble or immobilised form. (22pp)

CETU. ★ D16 65984 D/36 ★ US 4284-723
Prepn. of epoxide(s) from gaseous epoxides - by treatment with aq. halogenating enzyme, oxidising agent, and halide ion

CETUS CORP 16.05.79-US-039337 (14.06.78-US-914384)

E13 (E17) (18.08.81) C12p-07/18 C12p-17/02

16.05.79 as 039337 (478AT)

Epoxides (I) or glycols are prepd. from gaseous olefins (II) as follows: (a) (II) is passed continuously into a reactor contg. a halogenating enzyme, an oxidising agent, and a source of halide ion; (b) the resulting halohydrin (III) is then converted to (I) enzymatically. (II) are ethylene, propylene, isobutylene, butene-1, cis- or trans-butene-2, allene, or 1,3-butadiene.

This applicn. is related to US4247641.

Step (a). Halogenating enzyme is pref. a peroxidase from seaweed, milk, thyroid, leukocytes, and horseradish, esp. the organism Caldariomyces fumago. Oxidising agent is pref. H₂O₂ (opt. generated in situ using MeOH-oxidase/MeOH (to give co-prodn. of HCHO), or glucose oxidase/glucose (to give co-prodn. of gluconic acid)). Pred. halide source is NaCl, KCl, NaBr, or KBr. Reaction is at pH 2.2-8 with mole. ratio H₂O₂: (II) is 0.5-50:1, pref. 1-5:1.

Method affords (I) (and hence corresp. glycols) from gaseous (II) with min. energy requirements, relatively high safety, and relatively low cost. In addn., method avoids the use of free halogens. (8pp)

FUKU/ ★ D16 65985 D/36 ★ US 4284-724
Highly conc. aerobic cultivation of yeasts - by recycling sepd. yeast cells free of metabolites to the fermenter

FUKUDA H 22.01.79-US-005225 (25.08.77-US-827541)

(18.08.81) C12n-01/16

22.01.79 as 005225 (478HM)

The highly conc. aerobic cultivation of yeast cells (I) by a batch process using a fermentor and separator is effected as follows: (a) (I) are cultured on a liq. contg. C source, nutrients and H₂O (starting-up cell concn. at least 0.1%); (b) a broth contg. some (I) and feed liq. is removed continuously or intermittently (amt. filtrate removed 0.3-4 times the vol. of feed liq. added); (c) removed broth is sepd. to (I) (which are recycled to the fermentor) and a filtrate (contg. growth inhibiting substances) which is removed from the system; and (d) steps (a)-(c) are repeated to give final cell concn. 6-20%.

Process gives enhanced (I) concns., high quality yeast prods. are formed, and the accumulation of metabolites and salts is eliminated. In addn., the growth of undesired miscellaneous microorganisms is suppressed. (8pp)

DYNA. ★ D16 65986 D/36 ★ US 4284-725
Virus titration and identification system - with plate having wells contg. dried antisera or dried serum

DYNASCIENCES CORP 13.08.76-US-714072

B04 (18.08.81) C12m-01/20

13.08.76 as 714072 (1248)

System comprises (a) a transparent plate having spaced wells in it and arranged in spaced rows in a number of orientations; (b) dried aliquots of viable antisera for specific viruses, the aliquots being disposed in wells, with one row of given orientation for a specific virus; and (c) dried aliquots of normal serum disposed in rows in the remainder of the wells.

With the system tests can be made economically, rapidly and efficiently, with accuracy. For the tests specimens from a mammal, e.g. stools for polio virus determ., are used to inoculate cultures to give anisolate. (8pp Dwg.No.1)

PENT. D16 62686 D/35 = WP 8102-294

Tripeptide derivs. for determination of enzymes in blood - contain a terminal amino Gp. derived from a coloured or fluorescing aromatic or heterocyclic amine

PENTAPHARM AG (SVEN) 12.02.80-CH-001130

B04 (20.08.81) *EP--34-122 C07c-103/52 C12q-01/36

06.02.81 as CH0014 (G) DE2724211 FR2317278 EP---4256 N(AU DK JP NO US)

Tripeptide derivs. of formula

R1-D-NH-CH(R2)-CO-N(R3)-CH(R4)-CO-Arg-R5 (I)

are new. R1 is an opt. -omega-amino-substd. 2-8C alkanoyl gp, an opt. p-amino-substd. phenyl (2-4C) alkaroyl gp, an opt. 4-aminomethyl-substd. cyclohexylcarbonyl gp, benzoyl (opt o- or p-substd. with Me, amino or halogen), alkoxy-carbonyl (18C in alkoxy gp), benzyloxycarbonyl (opt. p-substd. with MeO, Me or Cl), 1-4C alkane sulphonyl an opt. p-methylated phenylsulphonyl gp or alpha- or beta- naphthylsulphonyl.

R2 is opt. branched 1-6C alkyl, 1-2C hydroxyalkyl, 1-4C alkoxy (1-2C) alkyl, benzyloxy (1-2C) alkyl, W-carboxy(1-3C alkyl), W-alkoxycarbonyl(1-3C) alkyl benzyloxycarbonyl(1-3C) alkyl, cyclohexyl, cyclohexylmethyl, 4-hydroxycyclohexylmethyl, Ph, 4-hydroxybenzyl or imidazolyl-(4)-methyl; R3 is H or opt. branched 1-4C alkyl; R4 is H, Me or Et; R5 is amino substd. with aromatic or heterocyclic gps. so that on hydrolysis a coloured or fluorescing cpd. HR5 will be formed.

(I) can be easily dissociated by certain enzymes of the class 3.4.21, esp. Factor Xa, and can therefore be used as a substrate in the quantitative automatic determination of these enzymes, esp. of Factor Xa in blood plasma. (I) are easily soluble and are highly sensitive to Factor Xa and are therefore capable of detecting extremely low conc. of Factor Xa. Synthesis of (I) is simpler and less expensive than that of previous tripeptide derivs.. for enzyme determination. (I) can also be used in the quantitative determination of Factor X (proenzyme of Factor Xa), Antifactor Xa (antithrombin III or heparin cofactor) and heparin, in human and mammalian blood plasma. (63pp)

SORI. ★ D16 66060 D/36 ★ WP 8102-308

Microbiological treatment of organic material - with microorganisms grown on movable bed of inorganic granules

SORIGONA AB(HUSS/) 05.02.80-SE-000923

(20.08.81) C02f-03/28 C12m-01/02 C12p-05/02

03.02.81 as SE0033 (295DI) (E) CH-612655 DE2531598 DE2331192 DE2249137 DS2332218 SE-397955 DS2924465 N(BR DK FI JP NO US) E(AT CH DE FR GB LU NL SE)

Organic materials are converted microbiologically with the formation of gas. The reaction is carried out in a vessel including microorganisms grown on a movable bed of inorganic material and freely in microflocks in a continuous aqueous phase.

The substrate for the microorganisms is supplied to the bed adjacent a mechanical stirrer. The gases generated are used for expanding the bed. The free microflocks are externally separated from the discharged liq. and are returned to the reaction vessel.

The method may be used to form ethanol from carbohydrates, or for the conversion of complex organic substrates to methane and CO₂. It may also be used in the denitrification of nitrate-rich aq. substrates. (11pp)

COLB D16 60987 D/34 = WP 8102-344

Antigen or antibody labelled liposome contg. encapsulated enzyme - for rapid determ. of hormones, drugs, toxins and pesticides, esp. in food

COLLABORATIVE RES INC 12.01.81-US-222815 (04.02.80-US-117864)

B04 S03 (20.08.81) *GB2069-133 G01n-33/54

13.01.81 as U00040 (916DJ) (E) US4193983 US3887698 US3850578 US4021364 US3937668 4.Jnl.Ref N(AU CH DK NL SE)

Diagnostic agent (I) is an immunoreactive liposome labelled with an antigen or its cognate antibody, sequestering an enzyme having a signal to noise ratio of no less than 5.

(I) is used together with a substrate for the enzyme; a test material and complement. The enzyme activity is detected by a colour change. The liposome may be prepared as described by Szoka and Papahadjopoulos in Proc. Nat. Acad. Sci. 75, 4194-4198/1978. Suitable enzymes include oxidoreductases, hydrolases and lyases. Substrates for detecting the enzyme include p-

nitrophenyl phosphate or 4-methylumbelliferyl phosphate or alkaline phosphatase, 4-aminosalicylic acid or o-dianisidine and hydrogen peroxide for peroxidases and o- or p-nitrophenylglycoside for glycosidase.

Like radio-immunoassay the use of this reagent is rapid, but without the hazards of radioactive substances. It is also more adaptable than the enzyme labelled antigen of prior art. (45pp)

See Also

D12 J81034269	D13 J56088758	D13 J56088764
D13 J56088765	D13 J81034255	D13 SU-787986
D13 SU-789093	D15 BR8100781	D16 J56088766
D17 SU-787476	D23 J81034271	D25 FR2474051

D17: SUGAR; STARCH

FARB D17 61658 B/34 = EP G003-585
Azulminic acid stabilised with carbonyl cpds. - contg. amino and carboxyl gps., useful as agricultural chemicals, complexing agents, etc.

BAYER AG 14.02.78-DE-806019

A26 C02 E13 (A25 A60) (26.08.81) *DE2806-019 B01j-21 B01j-23 B01j-31 B01j-45 C01c-03/06 C07d-251/30 C07d-471/22 C08g-18/16 C08g-83 C08k-05/34

05.02.79 as 100331 (047AT) (G) GB-845363 E(BE CH DE FR GB IT NL SE)

Azulmic acids (opt. contg. additives), stabilised by condensn. with carbonyl cpds. and contg. -C(NH₂)(COOM)- gps. (0.5-55 wt. %, where M is H, opt. substd. NH₄, sulphonium or a metal cation) and -CH(NH₂)- groups (0.5-15 wt. %), and their salts or complexes are new.

Prepn. of these derivs. comprises condensn. of the parent azulmic acid derivs. with a carbonyl cpd. in aq. media, opt. in the presence of additives and opt. followed by salt or complex formation, or HCN is polymerised in aq. media with a basic catalyst, opt. in the presence of additives, followed by condensn. with a carbonyl cpd. without isolation of the intermediate azulmic acid.

The prods. are used as catalysts for isocyanate foams, carbodiimide catalysts, reactive fillers and flame proofing agents in plastics, anti-ageing agents for plastics, catalyst carriers, catalysts for the polymerisation of concd. aq. HCHO to formose sugars, ion exchangers, and metal complexing agents. (57pp)

SANM- D17 91666 A/51 = GB 1596-911
Columnar chromatographic separation - allowing recovery of soluble main component and less soluble component in turn with recycle of intermediate fractions

SANMATSU KOGYO CO 26.05.77-JP-062023

B04 E13 J01 (D15 E17 S03) (03.09.81) *DE2822-721 B01d-15/08 + C12k-01/08 C12k-11

19.05.78 as 020825 (974HM)

Chromatographic sepn. uses a column packed with a solid ion exchange resin or molecular sieve adsorbent.

The feed soln. contg. A and B and an eluant are introduced. B is pref. adsorbed. The effluent is sepd. into four fractions. The first is rich in A, lacks B, and does not include an immediately preceding diluted leading edge fraction with these properties. The second contains both A and B and is recycled immediately to the top of the column. The third contains B, lacks A, and does not include an immediately following diluted tail fraction with these properties. The fourth, and second intermediate fraction, is the immediately following diluted tail fraction which is not included in the last and the leading fraction from before the first. It is recycled immediately to the top of the column. The first and third fractions are recovered as products. (12pp)

NURS/ ★ D17 64601 D/36 ★ GB 2069-869
Three roller extraction mill - with independent adjustment of inlet and outlet nip openings, used to extract juice from cane sugar

NURSE W A 22.12.80-GB-040972 (27.02.80-GB-006553)

P41 (03.09.81) B02c-04/04

22.12.80 as 040972 (295NS)

A juice extraction mill has three rollers with parallel horizontal axes arranged with one roller at the apex of a triangle. An inlet roller acts with the top roller to form an inlet nip of adjustable opening and similarly the discharge roller acts with the top roller to form an adjustable discharge opening. A trash plate carries material between the inlet and discharge openings. The ends of the inlet roller are carried in chairs mounted on a pivoted sub-frame. A ram controls the movement of the sub-frame to alter the opening of the inlet. A similar mounting is used for the discharge roller.

Independent control of the inlet and discharge roller openings is possible. (11pp)

TATL ★ D17 64642 D/36 ★ GB 2070-015
Prod'n. of microcrystalline glucose rich in beta form - from glucose syrup by evapn., shearing and isothermal crystallisation

TATE & LYLE LTD 27.02.81-GB-006344 (27.02.80-GB-006661)

E13 (03.09.81) C13k-01/10

27.02.81 as 006344 (367BZ)

Prod'n. of crystalline glucose is carried out by (a) evaporating water from a glucose syrup at a pressure of less than 400 (pref. 100-150) mmHg to form an at least 60% (pref. at least 70%) supersatd. soln. having a solids content of more than 95% (pref. 98-99%) and a temp. of 95-140 deg.C; (b) subjecting the supersatd. soln. instantaneously to a shear force to cause immediate nucleation without cooling; and (c) immediately forming the nucleated syrup into a quiescent layer and allowing the layer to crystallise isothermally.

The process gives a novel product comprising a mixt. of the alpha and beta forms of D-glucose as microcrystals (opt. agglomerated), in which at least 70% (pref. at least 85%) of the glucose is in beta form. The product dissolves more rapidly than glucose monohydrate and readily gives solns. contg. up to 60% solids. (12pp)

NICH- ★ D17 65031 D/36 ★ J5 6089-815
Sepg. liq. from solids contg. liq. - by kneading after introducing substance with high viscoelastic properties

NIPPON CHEMTECH CON 24.12.79-JP-168962

A31 J01 (21.07.81) B01d-43

24.12.79 as 168962 (55DH)

As the substance of high viscoelasticity, tar, asphalt, polyvinyl alcohol, aq. soln., etc. is used. In order to knead the mixt. a conventional kneading machine such as a kneader, Banbury mixer, extruder, etc. is used, but it is desirable that suitable liq. withdrawal means are provided. In this process, liqs. are effectively removed from solid of various kinds without being directly related to the kinds and the natures of the solids. For example, cane juice and stem juice are removed from sugar cane and pine apples stems respectively. (2pp)

BRUN/ D17 01838 S/01 = J8 1034-124
Continuous crystallisation procedure

BRUNG CD (SUI) 26.09.69-NL-014625

J01 (08.08.81) *BE-752-565

MOFO= ★ D17 65505 D/36 ★ SU-787-474
Purificn. of sugar soln. - by adding water-soluble anionite followed by minor amt. of calcium phosphate

MOSCFOD IND TECHN 02.02.79-SU-723145

A97 (15.12.80) C13d-03/14

02.02.79 as 723145 (314VE)

Sugar solns. are purified by adding a water-soluble anionite based on methacrylic acid amino-esters, followed by Ca phosphate in an amt. 0.0001-0.1%, on dry solids wt. The soln. is then filtered. The addn. of Ca phosphate enhances the purificn. and de-colorisation of the soln.

Typically, a sugar syrup is treated with 0.02% of anionite VA-212 in the form of a 1% soln. After 3 mins. 0.001% Ca₃PO₄ in the form of a suspn. is added, on dry solids wt. The resulting filtrate has a 25% better quality and is filtered 20% faster than in prior methods. Bul. 46/15.12.80. (2pp)

SUGA= ★ D17 65506 D/36 ★ SU-787-475
Controlled concn. of sugar massecuite - by setting electric resistance in forming crystals according to Q-factor of initial soln. with regard to its temp.

SUGAR IND RES INST(KISA=) 29.01.79-SU-739890

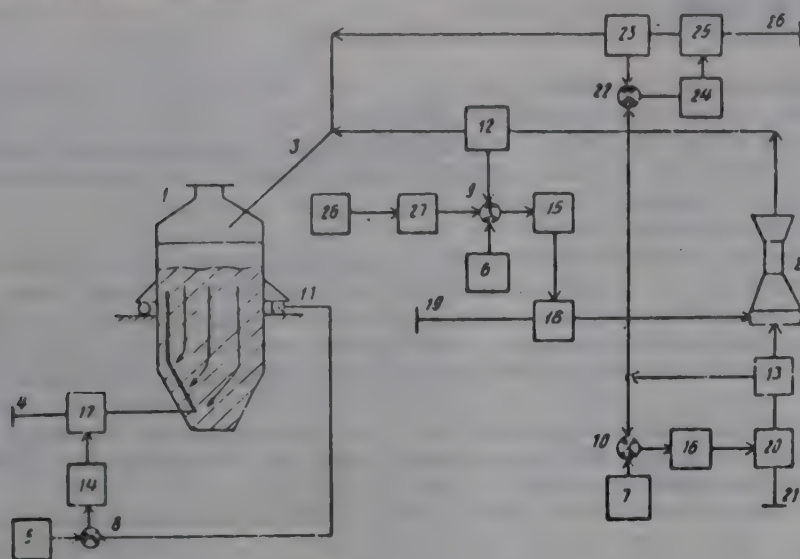
X25 (15.12.80) C13g-01/06

29.01.79 as 739890 (840GW)

Controlled concn. of sugar massecuite by determ'n. of the moment of seeding, regulating the level and absolute pressure, and measuring electric resistance enables sugar of improved quality to be produced by applying automation to periodically acting vacuum appts. Now, the resistance is set in forming the crystals according to the Q-factor of the initial soln., with regard

to its temp., and the resistance is also set for the soln. at the start and end of the first pumping of soln. and in the stage of crystal growth. Bul. 46/15.12.80. (5pp)

GIDR = ★ D17 65507 D/36 ★ SU-787-476
 Vegetal material percolation hydrolysis yeast prodn. control - by regulating digesting mix temp. as function of relative flow-rates of components of material being charged
GIDROLIZPROM 12.06.78-SU-628347
T06 (D16) (15.12.80) C13k-01/02
 12.06.78 as 628347 (840GW)



Controlled percolation hydrolysis of vegetable material includes program control of acid and digesting mix feed, digesting mix temp. and the wt. of the content of the hydrolytic appts. (1). The yield of sugar can be increased and the hydrolysate can be improved. The process is used esp. in hydrolysis yeast prodn. in the microbiological ind. By additionally regulating (15) the digesting mix temp. as a function of the relative flow-rates of the components of the material being charged, the best conditions are created for digestion. Bul. 46/15.12.80. (3pp Dwg. No. 2)

PROT = ★ D17 65508 D/36 ★ SU-787-477
 Purificn. of fibrous waste vegetable matter - by treatment with acid, impregnation with solvent and extrn. with water, used in hydrolytic sugar prodn.

PROTEIN BIOSYNTHESI 05.02.79-SU-723176
 (15.12.80) C13k-01/04

05.02.79 as 723176 (314VE)

Vegetable material, such as husks, pods, general waste material etc. used for obtg. sugars by hydrolysis, is cleaned and purified by treating with an acid at 20-100 deg.C, concn. 2-30% and liq. to solids ratio (I) of 0.1-1.5; impregnating with a solvent at 30-100 deg.C and (I)/ 0.5-4; and extracting with water at 60-120 deg.C for 30-90 mins. with (I) = 2-4.

The method provides a high degree of impurity removal, resulting in good yields and high quality of the sugar prods.

The solvent is pref. water or water contg. 10-50 vol.% of recycled extraction liquor; the acid is pref. H₂SO₄ or recycled extraction liquor acidified with H₂SO₄. (3pp)

See Also

D15 J81033975

D15 NL8000503

D16 GB2070022

D16 J56088766

D16 US4284722

D18: SKINS; HIDES; LEATHER; TOBACCO

ALTH- ★ D18 64182 D/36 ★ BE-885-252
 Sulphonated black tris:azo dyes - giving deep colours on paper and leather

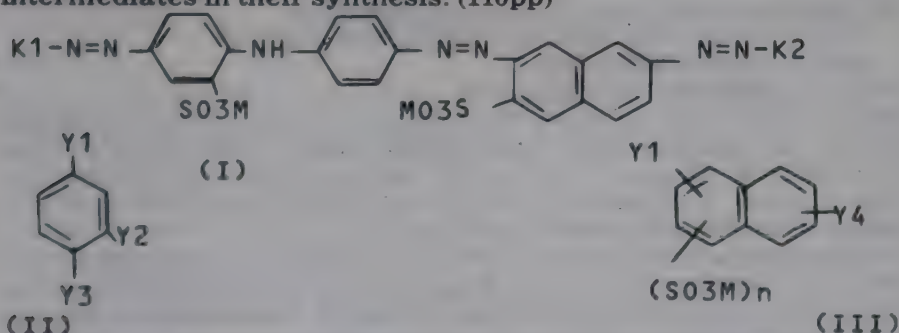
ALTHOUSE TERTRE SA 16.09.80-BE-885252

E21 F09 (16.03.81) C09b

16.09.80 as 885252 (1251DJ)

Trisazo dyes of formula (I) are new (M is H or alkali or ammonium cation; K1 and K2 are each residues of couplers of formula (II) and (III). Y is hydroxy or amino; Y2 is hydroxy or amino, opt. substd. by alkyl, acyl or aryl; Y3 is H, lower alkyl or sulphonc acid; Y4 is H, hydroxy or opt. substd. amino; n is 0-2).

(I) are claimed for dyeing leather and paper, and give deep black (greenish to reddish) shades of good fastness. They are readily soluble in water, stable towards acid, have optimum substantivity and good colour yield comparable to that of Acid Black 38 but, unlike this dye, they do not require hazardous intermediates in their synthesis. (110pp)



RIAT- ★ D18 64388 D/36 ★ EP--34-369
 Perforated drum contg. skins for soaking in liq. - in outer tank pivoted on drum axis to facilitate loading and discharging

RIAT SARL 18.02.80-FR-003516

(26.08.81) C14c-15

17.02.81 as 101123 (448AS) (F) FR2099495 DE1908989 DE2652580 E(BE CH DE FR GB IT LI NL)

Appts. comprises a horizontal, cylindrical, perforated drum which is rotated on its axis inside a vessel contg. the liq. The drum is divided into several compartments by radial partitions extending full length of the drum. The vessel has a loading/discharge opening through its circumferential wall. Each drum compartment has an access port with removable door. Each access port can be aligned with the vessel opening by rotation of the drum.

Improvement is that the vessel is pivotable about the longitudinal axis of the drum. When the access port is open and aligned with the vessel opening, the drum and vessel can be temporarily locked together to pivot together about their common axis.

Arrangement facilitates loading and unloading of the machine and minimises handling damage to delicate skins. (33pp)

GALL- D18 27299 A/15 = GB 1597-101
 Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 19.11.76-GB-048407 (05.10.76-GB-041271)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15

23.12.77 as ----- (+ 5.10.76, 19.11.76-GB-041272-4, 041276, 048402) (931WB)

A smoking prod is made for use as a tobacco substitutes, by subjecting a strand of viscose fibres controlled pyrolysis until the organic residue (less any additives) contains 90 wt % or more C. The strand used also contains a flavouring agent, smoke producing agent and/or combustion modifying agent.

Pref the O content of the residue is 1-4 wt% and the H content less than 1 wt%. The viscose fibres have a round cross-section and are 5-20 denier; and the strand is a sliver of staple fibres of length 20-100mm.

The pyrolysis comprises the stepwise heating of the strand by raising the temp from 200-300 deg C to 400-550 deg C to provide the major chemical transformation of the viscose, quickly raising the temp to 700-1200 deg C for a time to complete the transformation. (10pp)

GALL- D18 27299 A/15 = GB 1597-102
 Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041271 (00.00.77-GB-049636)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15

00.00.77 as 049636 Div ex 1597101 (931AT)

A smoking prod. fuel is made for use in a tobacco substitute from a mass of viscose fibres contg. 1 or more homogeneously dispersed inorganic combustion modifying agent, and subjecting them to controlled pyrolysis until the organic residue (less additives) contains 90 wt.% or more C.

The modifying agents are oxides or salts of Na, K, Ag, Cu, Ca, Mg or Ti, or their precursors. Pref. the O content of the residue is

1-5 wt.% and the H content less than 1 wt.%.

The viscose fibres have a round cross-section, and are 5-20 denier. The fibres are staple fibres of length 20-100 mm, and after pyrolysis have cross-sectional dimension of 5-50 microns. (6pp)

GALL- D18 27299 A/15 = GB 1597-103
Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041271 (00.00.77-GB-049637)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15/16

23.12.77 as ----- Div ex 1597101 (931AT)

A smoking prod. for use as a tobacco substitute is prepd. from a fibrous viscose material which is spun from a bulk viscose mix contg. a carrier for a nicotine component.

The material is subjected to a controlled pyrolysis until the organic residue (less any additives) contains 90 wt.% or more C. The pyrolysed material is loaded with smoking agents, esp. a nicotine component which is adsorbed by the carrier.

The viscose fibres have a round cross-section, and are 5-20 denier. The material before pyrolysis is formed from staple fibres of length 20-100 mm, and the pyrolysed fibres have cross-sectional dimension 5-50 microns. (7pp)

GALL- D18 27299 A/15 = GB 1597-104
Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041271 (00.00.77-GB-049638)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15/16

23.12.77 as ----- Div ex 1597101 (931AT)

A smoking prod. is made for use as a tobacco substitute by spinning a fibrous viscose material from a bulk viscose mix contg. an active carbon component.

The fibrous material is subjected to controlled pyrolysis until the organic residue (less any additives) contains 90 wt.% or more C, and the pyrolysed prod. is loaded with the agents for smoking. Pref. the fibres used have a round cross section and are 5-20 denier. The material before pyrolysis is formed from staple fibres of length 20-100 mm, and mean cross-sectional dimension of 5-50 microns.

Crimped fibres are esp. used in the material, contg. 6-8 crimps. per cm. (7pp)

GALL- D18 27299 A/15 = GB 1597-105
Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041271 (00.00.77-GB-049639)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15/16

23.12.77 as ----- Div ex 1597101 (931AT)

A smoking prod. for use as a tobacco substitute comprises a pyrolysed carbonaceous fuel contg. a smoke-producing agent. The agent is a physiologically-acceptable aliphatic ester of a mono-, di- or poly-carboxylic acid of b.pt. 200-450 deg.C, contg. only the elements C, H, O and an opt. metal.

Pref. the carboxylic acid forming the ester is an opt. unsatd. straight-chain carbon, oxy- or hydroxy acid. The alcohol forming the ester is an opt. unsatd. mono-, di- or tri-hydric alcohol.

The esters used in the prod. form stable aerosols with a mean particle size 0.5 microns, and inhalation of the smoke produced from them has the min. of retention in the lungs. (3pp)

GALL- ★ D18 64568 D/36 ★ GB 1597-106
Pipe smoking material in form of single-fill plug - comprising synthetic carbonaceous material enclosed in bag

GALLAHER LTD 09.12.77-GB-051323

A97 P15 (03.09.81) A24d-01/14

25.05.78 as ----- (367AS)

New product comprises a plug of smoking material for use as a single fill for a pipe bowl. The plug comprises a combustible mass of carbonaceous material (I) enclosed in a porous bag of inert or smoking material. (I) is a material which (a) is formed by controlled pyrolysis of a polymeric material (II) contg. no elements other than C, H and O and (b) has a C content, disregarding additives, of at least 80 (pref. at least 90)wt.%. The single-fill plug form avoids excessive handling of (I), which has inferior handling resistance compared with shredded tobacco. (2pp)

GALL- D18 27299 A/15 = GB 1597-107
Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041271 (00.00.80-GB-019419)

A97 P15 (A11) (03.09.81) *DE2744-728 A24b-15

23.12.77 as ----- Div ex 1597101 (931AT)

A smoking prod. fuel is made for use in a tobacco substitute producing a mass of round cross-section crimped viscose fibre of denier 5-20 and length 20-100 mm, and subjecting them to controlled pyrolysis until the organic residue (less any additive) contain 95 wt.% or more C, 1-4 wt.% O and less than 1 wt.% H.

Pref. the fibres have 6-8 crimps per cm. The pyrolysis involves stepwise heating of the mass by raising the temp. from 200-300 deg.C to 400-550 deg.C to provide the major chemical transformation of the viscose, then quickly raising to 700-1200 deg.C for a time to complete the transformation.

The pyrolysis is carried out in an oven using a non-reactive atmos. comprising N₂ and/or steam, and some recycled gaseous prods. of the pyrolysis. (9pp)

LEAT= ★ D18 65415 D/36 ★ SU-777-06
Compsn. for emulsion-oiling of leather - contg. oxidised methyl ester(s) of higher synthetic fatty acids, leather paste, and mineral oil, used for shoe uppers

LEATHER FOOTWEAR IN 08.09.78-SU-661190

E17 (07.11.80) C14c-09/02

08.09.78 as 661190 (314VE)

Compsn. for emulsion oiling leather used for shoe upper comprises (in wt.%): oxidised methyl esters of 18-23C synthetic fatty acids 40-60, leather paste 25-35 and mineral oil 15-25. The comps. produces chrome leather of high softness and elasticity.

In an example, an emulsion is used to treat oxide comprising oxidised methyl esters 40, leather paste 35 and spindle oil 20. The treated leather has a stiffness of 40.3 units compared to 57.6 when treated with a prior art comps. Bul. 41/7.11.80. (2pp)

HAUN D18 77506 B/43 = US 4283-998
Cigarette filter tip strand machine - with beta ray source and receiver keeping strand density constant

HAUNI-WERKE KORBER KG 07.04.78-DE-815025

A88 F07 P15 (A11) (18.08.81) *DE2815-025 A24c-05/56 + A24d-03/02

29.03.79 as 025042 (1376BZ)

Wrapped filter rods for cigarettes etc. are mfd. by stretching a crimped filament tow in a first portion of a conveying path, converting the tow into a rod at a second portion, wrapping the rod at a third portion, and incrementally measuring the mass of the rod and subsequently altering the feed rate of the tow. The stretching action is kept constant. Uniform filters can be produced. (6pp)

RAYJ/ ★ D18 65805 D/36 ★ US 4284-089
Simulated smoking device - for non-burning, consisting of container packed with absorbent material contg. nicotine deriv. and restricted passageway

RAY J P 02.04.80-US-136420

E13 P15 (18.08.81) A24f-47

02.04.80 as 136420 (478HM)

Simulated (non-burning) smoking device consists of: (a) a container which has a passage through it; (b) an absorbent material (I) within the container which communicates with the passage; (c) a nicotine (II) deriv. absorbed on (I); and (d) a constriction in the passage which (when air is sucked through the device when it is sucked by the user) increases the velocity of air flow, reduces the pressure (Venturi effect), and releases (II) into the air sucked in through the passage-way.

The device provides (II) for smokers without the need for the burning of tobacco. In addn., evapn. of (II) when the device is not in use is avoided. (10pp)

COHN/ D18 14530 C/08 #WP 8102-243
Treatment of cigarette paper with alkali silicate - with application being controlled to impart flame retardance without impairing flavour etc.

COHN CC 17.07.78-US-925224 (07.02.80-WP-U00120)

E36 F09 P15 (20.08.81) *US4187-862 A24d-01

07.02.80 as U00120 (955DJ) (E) US1905416 US1996002 US2028552 US2049320 US2985175 US3030963 US3220418 US4044778 US4187862 N(AT DE DK GB JP NL SE) E(FR)

In cigarette mfr., at least part of the paper is soaked with aq. alkali metal silicate soln., allowed to dry, and formed into a cylinder to produce a cigarette wrapper. The SiO₂ concn. in the coating soln., and the coated area of surface in any selected 3mm long section of the cylinder are chosen to be within the boundaries on a rectangular plot, defined by lines joining the pts. 100, 6; 100, 14.5; 16; 40, 22.2; 50, 10.5; and 90, 6.2, the first number in each pair being the percentage ratio of coated area to total area, and the second is the percentage of SiO₂ in the coating soln.

The cigarettes have a high degree of fire retardance, and pass the fire safety test for mattresses. The process is cheap, and the prod. has satisfactory appearance and burning characteristics, normal smoke volume, taste and draw. The ash retention is

Improved, and less smoke is evolved between puffs, so more puffs can be obtained from a given amt. of tobacco. (-pp)

See Also

D23 J81034271

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

FUND/★ D21 64308 D/36 ★DE 3006-513
Opt. ground viscum album-contg. dentifrice compsn. - for cleaning teeth and mouth, removing plaque and tartar, preventing pyorrhoea and weak gums

FUNDERBURK L 21.02.80-DE-006513

(27.08.81) A61k-07/26

21.02.80 as 006513 (200DJ)

Dentifrice compsns. consist of opt. ground Viscum album leaves and stems, or their chemical constituents, opt. mixed with standard dentifrice materials.

Mistletoe can be pulverised with a coffee-grinder. The powder is spread on a tooth-brush, opt. with standard dentifrice components or soda, and used after each meal for a thorough cleaning. Plaque and pyorrhoea vanish after a few days. The powder must be stored dry. Healing activity is enhanced by retaining generated fluid in mouth for as long as possible.

The compsns. clean both teeth and mouth, prevent caries, remove dental plaque and tartar, and prevent and heal pyorrhoea and tooth loosening. (4pp)

BADI★ D21 64318 D/36 ★DE 3006-635
Micronised crosslinked, insoluble PVP as suspension agent - esp. used for pharmaceutical or cosmetic preparations

BASF AG 22.02.80-DE-006635

A96 B04 (A14 B07) (27.08.81) B01f-03/12 B01f-17/52

22.02.80 as 006635 (952AS)

The use of micronised, crosslinked, insoluble polyvinyl pyrrolidone (I) to prepare stable suspensions is claimed. (I) is used for pharmaceutical and cosmetic preparations. The suspensions have a suspension quotient (sediment vol:total vol.) of greater than 0.9 after 24 hrs., exact dosages can be prepared after 24 hrs. and suspensions can be easily resuspended by shaking.

(I) is pref. used in an amt. of 1-30 wt.%. (7pp)

CURT. D21 51483 C/29 #EP --34-190
Water-based creme rinse compsn. for hair - contains anionic copolymer and cationic surfactant which reacts with it to give water-insol. prod. in suspended form

CURTISHINDS INC 03.07.78-US-921555 (14.02.80-EP-100731)

A96 P24 (A14) (26.08.81) *US4210-161 A61k-07/06

14.02.80 as 100731 (914BZ) (E) J54035222 DE1949606 US4065422 FR2117844 1.Jnl.Ref E(BE DE FR GB NL SE)

A creme rinse compsn. for application to the hair comprises an aq. soln. contg. 0.02-2wt.% of an anionic polymer and 0.1-5wt.% of a cationic surfactant which forms a water-insoluble reaction prod. with the anionic polymer. The resulting reaction prod. is suspended in the water which forms the medium for the compsn.

The rinse is of the type which is applied to freshly shampooed and towel-dried hair to detangle the hair, reduce the static in it, and make it easier to comb. The water-insoluble reaction prod. is substantive to hair and remains on the hair to impart body and stiffness to it. (13pp)

PROC★ D21 64396 D/36 ★EP --34-385
Heavy metal salts of 1-hydroxy-2-pyridine:thione - of defined shape and size, for anti-dandruff compsns.

PROCTER & GAMBLE CO 07.02.80-US-119347 (07.02.80-US-119346)

E12 (26.08.81) A61k-07/06 C07d-213/89

03.02.81 as 200125 (478HM) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Heavy metal salts (I) of 1-hydroxy-2-pyridinethione (II) are crystals of mean sphericity less than 0.65 and median equiv. spherical dia. based on vol. of 2-15 micrometres. (I) are suitably Sn, Cd, Mg, Al, or Zr pref. Zn salts of (I). (I) crystals pref. have mean sphericity 0.2-0.65. Hair care compsns. (esp. shampoos) contain 0.2-4% pref. 0.3-2% esp. 1-2% (I) together with 10-50% pref. 10-20% of a conventional surfactant, 0.1-6% pref. 0.5-5% pearlescent material, and 35-90% H₂O.

(I) of the defined crystal props. above are useful in antidandruff

compsn., but (unlike conventional (I)) they do not interfere with pearlescent materials in the compsn. (31pp)

OREA D21 78295 A/43 = GB 1596-875
Methacrylate based copolymers - for use in cosmetic compsns. esp. lacquers and setting lotions

L'OREAL SA 14.03.78-FR-007308 (21.04.77-FR-012048)

A14 (A96) (03.09.81) *BE-866-174 A61k-07/11 C08f-220/02

+ C08f-226/08 C09k-03/30

20.04.78 as 015722 (963WB)

Copolymer is claimed comprising recurring units of formulae - (CH₂-C(CH₃)(COO-(CH₂)₂-N(CH₃)₂)-, -(CH₂-C(CH₃)(COOCH₃)-, -(CH₂-C(CH₃)(COO(-)) B(+)) and opt -(M)-. B is Na, K, NH₄ or R₁R₂NH-(X)-OH; R₁ and R₂ are H or -(X)-OH; X is opt branched upto 4C alkylene which is opt substd. by at least 1 hydroxymethyl; M is derived from at least 1 of acrylamide or methacrylamide substd on the N by an opt branched alkyl, an acrylate or methacrylate of a monoalkyl ether of ethylene glycol or of a polyethylene glycol, and N-vinyl pyrrolidone. Relative molar proportions of the units are x, y, z and v respectively where x is 22-64%, y is 13-72%, z is 6-23%, and v is 0-22%, x+y+z+v being 100%.

The polymers are useful in hair compsn, esp in lacquers and wavesetting lotions. They have good solubility in ethanol and aq ethanolic mixts and they have good compatibility with aerosol propellants. (15pp)

ANVR D21 38450 A/22 = GB 1596-924
Alpha-amino acid prodn. from amino nitrile - by single stage hydrolysis in presence of carbonyl catalyst

AGENCE NAT VALORISATION 03.12.76-FR-036520

B05 C03 E19 (D13 D24) (03.09.81) *BE-861-121 C07c-99/10 C07c-102/08 C07c-149/24

02.12.77 as 050303 (945AS)

Alpha-amino nitrile (I) or its salt is hydrolysed in aq. medium contg. an aldehyde or ketone, in the presence of alkali(ne earth) metal or ammonium hydroxide. Suitably the hydroxide ions are present at 0.1-0.3 moles per mole (I) and the corresp. alpha-amino amide is obtd. or an equimolar amt. of hydroxide ions relative to (I) is provided and the corresp. free alpha-amino acid is obtd.

(I) may be obtd. in situ by reacting (1) a cyanohydrin with ammonia or (2) an aldehyde with hydrocyanic acid and ammonia or with a cyanide, ammonia and an ammonium salt. Yields of 90% and higher can be obtd. (10pp)

OREA D21 82087 A/46 = GB 1596-956
Colourant soln. for hair dyeing compsn. prepn. - comprises 5,6-di:hydroxy indole deriv(s). in anhydrous solvent

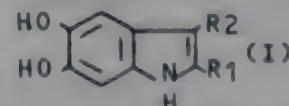
L'OREAL SA 10.05.77-FR-014254

E23 (03.09.81) *BE-866-838 + D06p-03/08

09.05.78 as 018498 (982WB)

Dyestuff soln. suitable for use in the prepn. of a hair dyeing compsn., comprises one or more dyestuffs corresp. to the formula (I) (where R₁-2 are each H or CH₃) or its salt at least one anhydrous solvent selected from ethyl, isopropyl or tert. butyl alcohol, ethylene glycol monomethyl, monoethyl or monobutyl ether or the acetate of ethylene glycol monoethyl ether.

Pref. the dyestuff is in the form of a halide, esp. the hydrobromide, and is present in an amt. of 0.1-80 (0.5-50) wt.%. The solvents preserve the dyeing capacity of the indoles during storage. (10pp)



BRIM D21 31800 B/17 = GB 1597-034
Oxidn. dye compsn. for hair - contains aq. carrier, 1-hydroxyethoxy-2,4 diaminobenzene, or salt, and a para-component

BRISTOL MYERS CO 06.10.77-US-839871

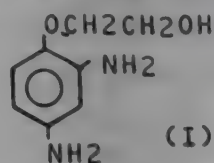
E14 (03.09.81) *DE2758-735 A61k-07/13 + D06p-01/32

14.02.78 as 005835 (945AS)

Oxidn. hair dye concentrate contains a para-component and a meta-component which react together in the presence of an oxidising agent to form a coloured dye on hair. The meta-component is a subst. m-phenylenediamine of formula (I) or its salt.

Pref. the concentrate is an aq. compsn. with pH 8-11 contg. 0.001-3 wt.% meta-component and 0.001-5 wt.% para-component. The latter is e.g. N,N-bis(beta-hydroxyethyl)-p-phenylenediamine.

Hair dyeing compsns. obtd. from the concentrate give shades which resist repeated shampoos with min. colour change and give adequate coverage. (8pp)



NATT D21 82835 B/46 = GB 1597-289
Aerosol hair spray compsns. - contg. neutralised carboxylated resin with increased solubility in hydrocarbon propellants

NAT STARCH & CHEM CORP 05.05.78-US-903441

A96 (A13 A14) (03.09.81) *DE2917-504 A61k-07/06 + C09k-03/30

25.05.78 as 022305 (945AS)

Aerosol hair spray compsn. contains (A) 0.5-5 unsatd. monocarboxylic acid-vinyl(idene) cpd. copolymer, (B) 5-60 wt.% hydrocarbon aerosol propellant and (C) solvent. In (A) at least 7% of the carboxylic acid gps. are neutralised and at least half of those neutralised gps. are neutralised with long chain prim, sec. or tert. amine, the longest C chain of which has 8-20C.

Suitably (A) is e.g. a copolymer of vinyl acetate and crotonic acid; (B) is a blend of butenes and propane; and (C) an alcohol or aq. alcohol mixt. (A) has improved solubility by virtue of the specified neutralisation. Films formed from the compsn. hold the hair well and are easily removed with shampoo. (7pp)

NICA ★ D21 65093 D/36 ★ J5 6090-006
Hair cosmetic compsn. - contg. (meth)acrylate based copolymer, giving good lustre and shape retaining properties

NIPPON CARBIDE KOGY KK 25.12.79-JP-167674

A96 (21.07.81) A61k-07/11

25.12.79 as 167674 (117RH)

Hair cosmetic contains a copolymer contg. 80 wt.% of a component A, e.g., CH₂:C(R₁)-COO-R₂ (where R₁ is H or CH₃ and R₂ is H or alkyl), and a component B, e.g., CH₂:C(R₃)-COOR₄-OH (where R₃ is H or CH₃ and R₄ is alkylene), as monomer units having a number average mol. wt. of 300-10,000, and having a glass transition point of less than 20 deg.C, a hydroxyl value of 5-300, an acid value of less than 200, and a viscosity of 100-3,000,000 cps.

The hair cosmetic agent has excellent lustring effect, washing effect, and shape keeping effect on hair, and is thus applicable in the form of a hair spray by filling the hair cosmetic agent in a pressure-resistant aerosol can with propellant or in the form of a liq. cosmetic by dissolving in an alcohol or water with a colourant and a perfume, as well as in the form of hair cream or pomade. (5pp)

AMDE- ★ D21 65910 D/36 ★ US 4284-551
Peroxide-cured vinyl monomer or unsatd. polyester compsn. - contg. tert. aromatic amine derived from p-amino phen:ethanol as accelerator, used in dentistry

AMER DENTAL ASSOC 30.11.79-US-098886

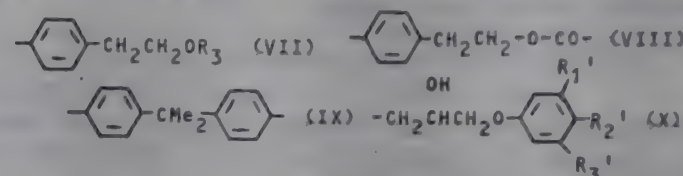
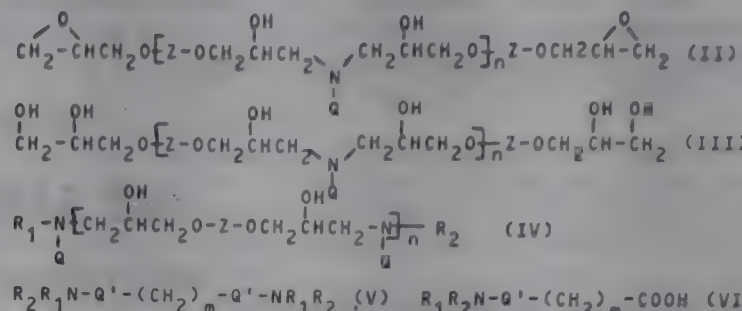
A60 E14 (A14 A96) (18.08.81) C08f-02/44 C08g-63/46 C08k-05/18

30.11.79 as 098886 (914HM)

New compsn. comprises (1) a vinyl monomer or unsatd. polyester, (2) a peroxide catalyst and (3) a tert. aromatic amine of formula R₁R₂NQ (I), (II), (III), (IV), (V) or (VI), or the reaction prod. of (II) or (III) with (meth)acrylic acid, (where Q is the gp. (III), Q' is (VIII) in which the phenylene gp. joins to the amino gp. NR₁R₂; Z is the residue of bisphenol A (IX), R₁ and R₂ are -Me, -CH₂CH₂CpH₂p+1 (p is 0-18), -CH₂CH₂OH, -CH(Me)CH₂R₁, -CH₂CH₂(OH)CH₂OC(O)CMe=CH₂ or the gp. (X). R₁ is CqH₂q+1 (q is 0-17); R₁', R₂' and R₃' are H, n-alkyl, -CrH₂r+1 (r is 1-20) or t-Bu, provided that if one of them is t-Bu then the adjacent one is H; R₃ is H, 2-21C n-alkanoyl or CH₂=CR-CO-; R is H or Me; n is 1-10; and m is 2-10).

The tert. amine acts as an accelerator for the peroxide catalysed polymerisation of the vinyl monomer or curing of the unsatd.

polyester. It has high strength and low colour. The compsn. is esp. useful as a restorative dental material, a cold-curing denture base material for fabricating or replacing dentures, or as an orthopaedic bone cement. (13pp)



FARB D21 80936 B/45 = US 4284-621
Cosmetic light-protective compsn. - contains 4-methoxybenzylidene-cyanoacetate as UV A filter and opt. a UV B filter

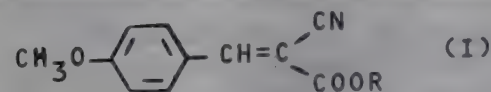
BAYER AG 18.04.78-DE-816819

E14 (18.08.81) *DE2816-819 A61k-07/42

28.03.79 as 024742 (931PW)

An ultraviolet light protection compsn. comprises an oil or wax carrier contg. a UV-A absorbing amt. of a 4-methoxybenzylidenecyanoacetic acid ester of formula (I), where R is n-hexyl, n-octyl, n-decyl or a prim. (9-10C)-isoalkyl. Pref. (I) is used in a concn. of 0.5-6 wt.%, and the compsn. contains 1 or more cosmetic or dermatological additive.

The ester is esp. the n-hexyl- or the isononyl ester, and the compsn. contains 0.2-10 wt.% UV-B filters, e.g. 2-phenyl-5-methyl-benzoxazole, 2-phenyl-benzimidazole-5-sulphonic acid or 4-methoxy-cinnamic acid isomyl ester. The compsn. is esp. effective at absorbing light of wavelength 320-400 nms. (5pp)



YURJ/ ★ D21 65947 D/36 ★ US 4284-630
Stabilised water-in-oil emulsions for topical use - contg. magnesium hydroxide or oxide as stabiliser with therapeutic agent

YUR J 29.05.79-US-043266 (16.11.77-US-852147)

B05 E33 (18.08.81) A61k-31/58

29.05.79 as 043266 (+ 22.3.78-US-852147) (1248NS)

Stabilisation of a water-in-oil emulsion is effected by mixing an oil-base dispersion medium, a water-based aq. dispersed phase and up to 2% by wt. of Mg(OH)₂ or MgO.

The emulsions are suitable for topical application to the human body, and they are stable on storage for at least 2 months and are stable when frozen then subsequently thawed to room temp. The emulsions are vehicles for medicinal and therapeutic prods., esp. for use as antiinflammatory and sun-screening prods. when the emulsions are used as vehicles for anti-inflammatory steroids, their stability and efficacy is improved.

Pref. 0.1-0.5% Mg(OH)₂ or MgO is present as stabiliser, and it may be incorporated in the aq. phase before it is dispersed, or mixed directly with the emulsion. (9pp)

IBSE/ ★ D21 66040 D/36 ★ WP 8102-254
Dental composite contg. hydrophobic submicron silica - and glass particles, incorporated into resin, useful as veneer, and for filling cavities

IBSEN R L 08.02.80-US-120119

A96 (20.08.81) A61k-06/08 C08k-03/26 C08k-09/06

02.01.81 as U00031 (251HM) (E) US3770811 US3926906 US4032504 US4150012 US4220582 AU-477135 DE2462271 2.Jnl.Ref N(AU BE JP) E(AT CH DE FR GB LU NL SE)

Filled-resin dental composite (A) contains as filler a mixt. of hydrophobic silica particles (II) of dia. 0.01-0.04 microns and glass particles (III) of dia. 2-30 microns (pref. 7 microns on average). The glass is pref. X-ray opaque, esp. it contains a Ba or Sr salt. (II) is 10-30% and (III) 20-67% on wt. of total composite, and together make up 30-83.5%.

The formulation also contains 16.5-75 wt.% resin plus curing agent and accelerator, or resin plus peroxide curing agent (but no amine), in which case it is useful as a heat-curing veneering dental paste.

The formulations are used to fill carious lesions, and because of their very small particle size give a smoother finish than standard fillers while retaining comparable chemical and mechanical properties. Their consistency makes them suitable for application with an amalgam carrier. (19pp)

See Also

D13 DS 2860715
D13 J5 6089832
D23 DS 2860714
D23 J8 1034271

D13 EPG 007486
D13 US 4284650
D23 DS 2960374

D13 J5 6088758
D16 FR 2474052
D23 J5 6090076

D22: BANDAGES; DRESSINGS

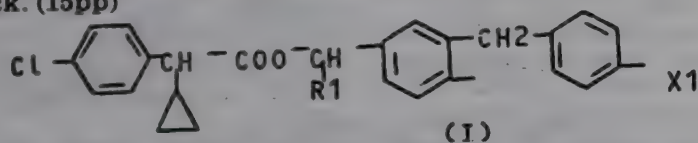
SCHR/ ★ D22
Excitation device for oxygen molecules in air
SCHRIMPF P 07.05.79-AT-003375
P34 (15.08.81) A611-09/22

D/36 ★AT 7903-375

CIBA ★ D22 84347 D/36 ★DE 3047-219
Cyclopropyl-phenylacetic acid 3-benzyl-benzyl ester derivs. -
prepd. by reaction of para-chlorophenyl cyclopropyl-acetyl
halide with 3-benzyl-benzyl alcohol
CIBA GEIGY AG 17.12.79-CH-011161
C03 E14 F06 (27.08.81) A01n-37/34 C07c-67/14 C07c-69/63 C07c-
121/38 D06m-13/20

15.12.80 as 047219 (280KB)
New cyclopropyl-phenyl-acetic acid 3-benzyl-benzyl ester derivs.
are of formula (I): (where R1 is H, CN or ethynyl and X1 is F, or
R1 is 1-propynyl and X1 is H or F).

(I) are pesticides useful particularly as insecticides and
acaricides. They are especially useful against insects which are
injurious to plants, against flies such as *Musca domestica*, midge
larvae, and keratin-eating insects, (e.g. keratin-eating
Lepidoptera larvae). (I) are accordingly suitable for use in plant
protection and for protecting wool-contg. textiles against insect
attack. (15pp)



RETI- D22 21414 D/12 = EP --34-174
Hydrogel implant of crosslinked acrylate copolymer - of 2-
hydroxy-ethyl and alkyl acrylate ester(s), esp. for use as scleral
buckles

RETINA FOUNDATION 20.08.79-US-067630
A96 (A14) (26.08.81) *WP8100-570 C08f-18
19.08.80 as 901753 Based on WP8100570 (1251PW) (E) US3503942
US3983083 US4228269 E(CH DE FR GB LI)
A shaping-retaining hydrogel implant, which is relatively soft
and pliable, comprises a crosslinked copolymer of 2-
hydroxyethyl acrylate and an alkyl acrylate (pref. 1-5C esters,
esp. methyl or n-butyl). The implant pref. has hardness (Shore
Durometer Type A-2) 50-40 when dry, but less when wetted with
water or an aq. soln. The implants pref. contain an aq. liq., esp.
one contg. an antibiotic.

They are made by filling a mould with a soln. of the monomers
water-soluble organic solvent, crosslinking agent and free
radical initiator, then polymerising, crosslinking and curing. The
implant is then removed from the mould, and residues and
solvent extracted.

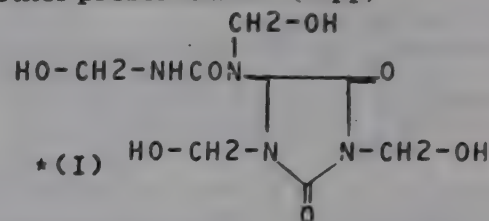
The implants are esp. useful as scleral buckles for use in retinal
detachment surgery but can also be used e.g. as contact lenses.
The hydrogels have better softness, elasticity and resistance to
tensile rupture than known materials. Their pore size (20-30
angstroms) is too small to trap bacteria or other pathogens but
large enough to absorb hydrophilic antibiotics or other aq. drugs.
The implants are well tolerated and stable to both heat
sterilisation and biodegradation. (23pp)

SUTT D22 21410 D/12 = EP --34-182
1,3-Bis-hydroxymethyl-1-substd.-imidazolidinyl-urea - useful as
preservative against bacterial, fungal and yeast contamination,
esp. in cosmetics

SUTTON LABORATORIES INC 28.08.79-US-070502
B03 C02 E13 (26.08.81) *WP8100-566 A61k-31/41 C07d-233/60
27.08.80 as 901834 Based on WP8100566 (1248WB) (E) US3248285
14Jnl. Ref E(AT CH DE FR GB LI LU NL SE)
N-(Hydroxymethyl) N-(1,3-dihydroxymethyl) 2,5-dioxo-4-
imidazolidinyl N'-(hydroxymethyl)urea of formula (I) is new.
Cpd. (I) is obtd. by condensing allantoin with HCHO in the precise
molar ratio of 1:4, pref. in presence of a basic catalyst such as
NaOH

Cpd. (I) is an antimicrobial agent effective against bacteria,
moulds and yeasts, and it is suitable for use as a preservative.

esp. for cosmetics. In contrast to related cpds. described in
US3248285 and the parabens, (I) is esp. stable and is effective
against yeast and moulds. It is water soluble and can be used
alone without other preservatives. (12pp)



ALBE/ ★ D22 64471 D/36 ★FR 2473-841
Hygienic dirt tray for excrement of domestic cats - lined with
disposable plastic sheet prefolded to fit tray and form bag when
removed

ALBERT J P 22.01.80-FR-001272
A92 P14 (24.07.81) A01k-01/03
22.01.80 as 001272 (448HM)

Hygienic dirt tray for the reception of excrement etc. of domestic
cats is in the form of an open-topped rectangular receptacle, pref.
of polystyrene, with shallow walls which are upright or slope
slightly outwards.

Outside one end of the tray a bar is fitted to two arms which are
pivoted on opposite side walls of the tray. The inside of the tray is
lined with a disposable, plastic sheet formed with definitive, fold
lines. These folds ensure that the sheet conforms to base and
sides of the tray. The pivot bar tensions and locks the sheet in
position.

The sheet can be lifted out as a pocket contg. the litter and
excrement without the lifter's fingers becoming contaminated.
(8pp)

GERL/ ★ D22 64531 D/36 ★FR 2474-406
Motor vehicle deodoriser contg. renewable perfumed cartridge -
through which air is blown by 12 volt motorised fan

GERLACH H 19.07.79-FR-019925
X22 P34 Q12 (31.07.81) A611-09/12 B60h-03
19.07.79 as 019925 (448BZ)

A deodoriser for the atmos. inside a motor vehicle. The
deodoriser comprises a hollow, cylindrical, plastic housing which
is fixed inside the passenger space. Within the housing, a 12-volt
motorised fan sucks air through a filter at one end and delivers it
through an outlet grill at the other end.

The housing accommodates a perfumed-disinfecting cartridge
which is removably retained in the air stream. The cartridge is
accessible for removal and replacement via a housing aperture
with removable cover. Power to the motor is via a flex plugged
into the dashboard cigar lighter. (4pp)

FARH D22 63621 A/36 = GB 1596-823
Laminate for bandages or dressings - comprises porous
regenerated cellulose bonded to plastics film, and contains
weldable, plastics, powder, fibres and/or fibrils

HOECHST AG 21.02.77-DE-707392
A96 P32 + P34 P73 (03.09.81) *DE2707-392 B32b-05/18 B32b-
27/06 + B32b-15/08 B32b-23/08
20.02.78 as 006599 (945AS)

Shaped structure comprises a layer of porous regenerated
cellulose contg. at least 3 wt.%, based on the total porous layer
wt. of finely divided weldable or sealable thermoplastic filler.
The layer is welded or sealed to a thermoplastic film. Suitably,
the thermoplastic film and opt. the filler comprises olefin
polymer, polyamide, PVA, PVC or polystyrene.

The prod. is used as a hydrophilic dressing material. It has
good adsorbing power and good padding effect, and can be used
for wet dressings without need for subsequent covering with a
water-tight film. (4pp)

FREU D22 76243 A/42 = GB 1596-891
Multilayered compress for wounds - has two outer, pervious layers, separating layer and two absorbent layers (SW 4.9.78)
FREUDENBERG, CARL FA 10.02.77-DE-U03897
A96 P34 + P32 P73 (A11 A17) (03.09.81) *ZA7707-000 + B32b-05/26
 09.02.78 as 005147 (931AT)
A wound compress comprises 5 or more superimposed layers. The 2 outer layers are formed of a material which is permeable to secretion from a wound, but does not cohere with the wound.
 The inner layers include 2 or more absorbent layers formed of cellulose fibres sepd. by 1 or more distributor layers formed from cellulose, carboxy methyl cellulose or starch.
 The distributor layers are formed as tissue wadding, a fleece or a fabric, and the outer layers are formed as a knitted or woven fabric, a fleece or a perforated synthetic plastics foil. (2pp)

OTTI-★ D22 64590 D/36 ★GB 2069-840
Sterilisation of contact lenses - by successive application of carbon di:oxide, vacuum, and further carbon di:oxide
IND OTTICHE RIUNITE 25.02.80-IT-020157
P34 (03.09.81) A611-02/20
 23.02.81 as 005650 (295HM)
Contact lenses are sterilised while enclosed in the interior of a sealed chamber which has rigid walls. A carbon dioxide stream is first introduced into the chamber which is subsequently evacuated. Finally it is refilled with CO₂ until a preselected pressure is obtd. Pref. the lenses are subjected to a washing step prior to the sterilising treatment.
 The lenses are not subjected to heat which can damage the material of the lens. (6pp)

AERO-★ D22 64591 D/36 ★GB 2069-842
Post-operative detection of surgical sponges by radiography - using sponges contg. X-ray opaque heavy-metal salt
AEROFOAM LTD 27.02.80-GB-006682
A96 E33 K08 P34 (03.09.81) A611-15 C08g-18/14 C08k-03/30 C08l-75/04
 27.02.80 as 006682 (367AT)
Surgical sponges remaining in a patient's body after surgery are detected by radiography, the sponges being formed from a foamed plastics compsn. contg. sufficient X-ray-absorbing heavy-metal salt (I) to render the whole sponge opaque to X-rays.
 The sponges are pref. formed by incorporating (I) in a foamable polyurethane compsn., and foaming the compsn. (I) is pref. a Ba salt (esp. BaSO₄), which is used in an amt. of ca. 30 pts.wt. per 100 pts.wt. of polyol in the polyurethane compsn. Also claimed are sterile packages contg. a sterile (I)-contg. surgical sponge. (4pp)

BLAT-★ D22 64593 D/36 ★GB 2069-847
Artificial limb thermoplastics stump socket - secured in thermoplastics container forming lightweight connection to alignment coupling
BLATCHFORD & SONS L 23.02.81-GB-005624 (22.02.80-GB-006023)
A96 P32 (03.09.81) A611-01/08 B29d-31
 23.02.81 as 005624 (1358HM)
Socket is received in a thermoplastics container with its inner surface partially conforming to and engaging the socket. The container is pref. moulded to correspond with and is in intimate contact with a tapered outer surface of the socket.
 The container outer end pref. has a transverse wall spaced from the socket end and clamped between a member inside the container and a rigid mounting surface of the limb. The container pref. has a rim which over part or all its length lies adjacent to and is heat-welded to the socket. The arrangement is partic. for an above-knee amputee, and the socket includes a suction valve. The container provides a lightweight connection between socket and an alignment coupling to replace metal tubing and connections. (6pp)

DISP-★ D22 64681 D/36 ★GB 2070-086
Knitted fabric esp. for incontinence underwear - has interspaced courses of staple fibre yarn and continuous filaments yarn
DISPOSABLE DEV LTD 23.01.81-GB-002057 (25.01.80-GB-002635)
A84 F04 P21 (03.09.81) A41b-13/02 D04b-01/16
 23.01.81 as 002057 (006HM)
The courses of staple fibre and bulked-continuous- filaments yarn are regularly interspaced with one another, pref. in alternate courses of interlock fabric having both yarns of polyester material.
 Specifically a urinary incontinence garment made from the fabric includes a pouch for an absorbent pad. The fabric has low absorbency, soft handle, and has good shape-recovery after washing. (7pp)

DUSK-★ D22 64927 D/36 ★J5 6089-263
Gel-form aromatic deodorant compsn. - contg. alkali and/or metal soap, perfume, water and organic solvent contg. 3-methoxy-3-methoxy-butanol
DUSKIN FRANCHISE KK 18.12.79-JP-163534
E12 P34 (20.07.81) A611-09/*
 18.12.79 as 163534 (22AS)
Compsn. comprises (a) 2-19wt.% alkali soap and/or metal soap which can form gel; (b) 5-30wt.% perfume; (c) 5-30wt.% water; and (d) 50-85wt.% organic solvent which contains mainly 3-methyl-2-methoxy butanol.
 Soap is sodium stearate, lithium stearate, potassium stearate, sodium palmitate, potassium palmitate, sodium oleate, potassium laurate, potassium oleate, etc. Perfume is synthetic or natural perfume. Deodorant activity is retained for a long period such as 30-90 days. (4pp)

JOHN-★ D22 64928 D/36 ★J5 6089-262
Deodoriser compsn. for air - consists of aromatic and spirit oil, perfume etc. with poly:oxy:ethylene alkyl ether cpd.
JOHNSON KK 24.12.79-JP-166859
A97 P34 (20.07.81) A611-09/*
 24.12.79 as 166859 (22BZ)
Compsn. for treating air, which contains polyoxyethylene alkyl ether of formula of RO(CH₂CH₂O)_nH. The compsn. remove bad smells in room, automobile, etc. The compsn. contains aromatic oil, spirit oil, perfume, etc. as active ingredient.
 The incorporation of the polyether cpd., the deodorant activity can be prolonged. In the formulae R is 8-16C alkyl, pref. 12-14 carbon atoms. The value of n is 3-20, pref. 5-12. An amt. of the polyether cpd. used is 5-80 wt.%, pref. 20-70 wt.%. (2pp)

TSIL★ D22 64929 D/36 ★J5 6089-263
Prepn. of gyps bandage by curing silicone compsn. - of poly-di:organo:siloxane contg. blocked terminal silanol gps. and organic silicone with two or more hydrolysable gps.
TOSHIBA SILICONE KK 21.12.79-JP-166469
A96 P34 (20.07.81) A611-15/07
 21.12.79 as 166469 (22BZ)
In prepn. of gyps bandage by curing curable material to fix the necessary portion of body, use is made of silicone compsn. which is cured in rubber like state by room temp. or 80 deg.C or lower as the curable material opt. with reinforcing material. By this method, gyps bandage can easily be formed and further removing the gyps is very easy without harming the body.
 The curable material usable in this method is, for example, a compsn. comprising 100 pts.wt. of polydiorganosiloxane having viscosity of 50-200,000 cSt at 25 deg.C and contg. blocked terminal silanol gps., 0.1-20 pts.wt. of organic silicone cpd. having two or more hydrolysable gps. and a catalyst. (6pp)

SHIA★ D22 65053 D/36 ★J5 6089-838
Water-absorbing material e.g. for paper towel - is prepd. by mixing water-insoluble water absorbing resin with ion-chelating agent
SHINKO KAGAKU KOGYO 25.12.79-JP-167669
A18 F09 P21 P34 (A96) (21.07.81) A41b-13/02 A611-15 B01j-20/36
 25.12.79 as 167669 (51AS)
Water absorbing material used in paper diapers, paper towels, or sanitary towels is obtd. by mixing water-insoluble water absorbing resin with ion chelating agent, where the amt. by wt. of agent is up to 4 times as much as that of the resin.
 Resin is saponified starch-polyacrylic acid copolymer, self cross-linked type polyacrylate, saponified starch-polyacrylonitrile copolymer and/or PVAc. Agent is ethylenediamine tetramine, sodium tripolyphosphate, sodium pyrophosphate, and/or sodium polyphosphate.
 In an example, 100 g of paper pulp of 100 g/m³ was mixed with 25 g ion chelating agent of EDTA and 25 g water-insoluble water absorbing resin of self cross-linked polyacrylate. (4pp)

SANN★ D22 65054 D/36 ★J5 6089-839
Water absorbent material, e.g. for tampons, nappies and surgical pads - prepd. by dropping divided type absorbing fibre from loading appts. with a scraping roller, then spraying
SANYO CHEM IND LTD(TANK-) 21.12.79-JP-167085
A18 F04 (A96) (21.07.81) B01j-20/28 B29b-01/04
 21.12.79 as 167085 (51DJ)
The method comprises dropping a divided type absorbing fibre from a loading appts. with a scraping roll to obtain scraped fibre, and spraying a water absorbing type resin from a spray nozzle to the scraped fibre to produce a water absorbing type material consisting of a uniform mixt. of the fibre and the resin.
 The fibre is pulp, cotton, wool, viscose rayon, nylon, polyester, or polypropylene. The resin is obtd. by polymerising a water-soluble monomer, polysaccharide, and a crosslinking agent. (9pp)

TAKE ★ D22 65090 D/36 ★ J5 6090-002
Industrial fungicide compsn. - comprising mixt. of di:alkyl ester of halo:formic acid and 4,5-di:chloro-1,2-di:thiol-3-one

TAKEDA CHEMICAL IND KK 24.12.79-JP-168973

C03 F06 G02 (F09) (21.07.81) A01n-37/06 A01n-43/26

24.12.79 as 168973 (108DJ)

Industrial fungicide compsn. contains as active component a mixt. of di-lower alkyl ester of halofumaric acid (A) and 4,5-dichloro-1,2-dithiol-3-one (B).

The ratio of blend of (B) to (A) is 0.05-2 (0.1-0.5) pts. wt. of (B) to 1 pt. wt. of (A). The compsn. is generally used in the form of organic solvent soln., emulsion, wettable powder, aq. soln., suspension, granule, fine granule or paste. The compsn. is applied to the object by coating, spraying, immersing, mixing, or kneading. When applying to the paint, the compsn. is added in such a manner that the final concn. of the active component may be 20-500 ppm. It is possible to use the compsn. in combination with other fungicide, insecticide, aroma, etc. The mixt. shows synergic effect. It is effective in the prevention of putrefying of industrial prods. and industrial materials (e.g. textile emulsion, latex emulsion, emulsion paint, emulsion wax, spindle oil, industrial cooling water, water used in the mfr. of pulp and paper) and in the prevention of generation of fungi in said industrial materials. The active mixt. has no residual toxicity or pollutes the environment. It can be prepd. at low cost. (4pp)

EART- ★ D22 65092 D/36 ★ J5 6090-004
Insecticide for clothes - contains 1-ethynyl-2-methyl-2-pentenyl alcohol ester of e.g. tetra:methyl cyclopropane-1-carboxylic acid

EARTHSEIYAKU KK 21.12.79-JP-167053

C03 E15 (21.07.81) A01n-53

21.12.79 as 167053 (108AS)

Insecticide for clothes contains as active component at least one 1-ethynyl-2-methyl-2-pentenylalcohol ester of 2,2,3,3-tetramethyl cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2',2'-dichlorovinyl) cyclopropane-1-carboxylic acid and/or 2,2-dimethyl-3-(2'-methyl-1'-propenyl) cyclopropanecarboxylic acid.

The ester has high vapour pressure and exerts an excellent gas effect at normal temp. It has an immediate effect, has very low toxicity, is odourless and has a long-lasting effect. The effective concn. is 1/1000-1/200 times, as compared to paradichlorobenzene, naphthalene and camphor. (7pp)

HONP ★ D22 65285 D/36 ★ J5 6091-052
Nonwoven fabric laminate for sanitary napkin etc. - has good heat sealing property to prevent swelling out of water absorbing polymer layer

HONSHU PAPER MFG KK 26.12.79-JP-168090

A94 F04 P21 P28 P32 (23.07.81) A41b-13/02 A471-13/16 A61f-13/16 D04h-01/42

26.12.79 as 168090 (172RP)

The laminate consists of three layers of dry process nonwoven fabrics with layer (2) sandwiched between layers (1) and (3). Layers (1) and (3) comprise nonwoven fabric consisting of heat-cementing conjugate fibre of 3-50 mm length. Layer (2) comprises nonwoven fabric in which the following components are uniformly distributed: (a) heat-cementing conjugate fibre of 3-10 mm length 5-30%; (b) natural fibre 40-70%; (c) pulp 5-30%; (d) high water absorbing polymer 5-40% (wof).

The laminate is heat treated at a temp. higher than m.pt. of low melting component of the conjugate fibre and m.pt. of synthetic pulp made from thermoplastic resin and lower than m.pt. of high melting component of the conjugate fibre. The laminate has good heat sealing property and prevents (2) from swelling out.

The laminate shows excellent water absorption and retention and is useful for diaper, sanitary napkin, etc. (4pp)

NITL D22 50711 C/29 = J8 1034-203
Antibacterial material - comprising high molecular material contg. acid gp. to which bis-(p-chlorophenyl:di:guanide)-hexane is ion bonded

NITTO ELECTRIC IND KK 28.11.78-JP-147651

A96 B04 (08.08.81) *J55073-706 C08f-08/44 + A01n-47/44

28.11.78 as 147651 (1136PW)

Antibacterial material comprises mainly the high mol material contg (1) acid gp and (2) bis-(p-chlorophenyl)diguanide - hexane (chlorohexidine) ion-bonded to the acid gp. Pref (2) includes chlorohexidine gluconate, chlorophexidine hydrochlorate and chlorohexidine acetate. Component (2) is fixed to high mol material by copolymerising (a) at least 1 acid gp-contg monomer and (b) comonomer, and contacting the prod with Component (2) to allow the acid gp to react with the bactericide, and removing excess bactericide from the prod by washing.

Material has long lasting antibacterial properties (J55073706) (7pp)

TOWA- D22 91632 B/51 = J8 1034-441
Insect control in wood - by impregnating with aq. soln. contg. boron cpd., and an amine

TOWA MOKUZAI KK 28.04.78-JP-051767

C03 E19 F09 P63 (E36) (11.08.81) *J54143-501 B27k-03/52

28.04.78 as 051767 (5BZ)

Method comprises impregnating an aq. soln. contg. boron cpd. (e.g. boric acid) and amine with the molar proportion of 1:0.1-3 and treating it through (a) the restoration of pressure and/or the loading of pressure of (b) drying.

By combining amine (e.g. alkylamine, alkanolamine, polyvalent amine, cyclic amine etc.) boric acid can be easily dissolved in water to the prescribed concn. in a short time and the soln. can be kept liq. at about - 2 deg. C Thus the contact of the soln. and wood can be practiced at normal temp. Further the amine-boric acid compsn. shows strong affinity to water and can be easily impregnated in wood rapidly. Thus the method can be adapted for the wood having moisture content as low as above 25 wt.%. Practically the amine-boric acid soln. having boric acid concn. 10-30 wt.% can be used and pH of the soln. is previously adjusted to 7-7.5 with acid. (J54143501) (7pp)

MOTE = ★ D22 65481 D/36 ★ SU-787-438
Compsn. for impregnating fibrous materials - contg. aq. dispersion of polyurethane and sodium aluminomethyl silicate modifying agent to improve sterilisation stability

MOSCTEXTILE INST 15.08.78-SU-654582

A25 F08 (A60) (18.12.80) C08k-05/54 C081-75/04

15.08.78 as 654582 (124VE)

Use of Na aluminomethyl silicate (I) as modifier in the compsn. for impregnating non-woven fibrous materials, improves their capillary properties and sterilisability. The mixt. contains (in wt.%): (I) 0.1-10, aq. dispersion of polyurethane (II) 3-40 and water the rest. The impregnated materials find use in medicine, polygraphy, the mfr. of simulated leather and various domestic applications.

Typical 3% dispersion of (II) contg. 0.1 wt.% (I) was used to impregnate a non-woven fabric which was then dried at 60-100 deg.C and heated for 2-10 min. at 110-150 deg.C. Subsequent sterilisation for 20-60 min. at 120-150 deg.C under 2-3 atmos. gave a material suitable for medical use. Bul. 46/15.12.80. (2pp)

SATR = ★ D22 65592 D/36 ★ SU-789-084
Soln. for preserving human brain outer membrane for transplantation - contg. hydrogen peroxide, tri:sodium phosphate, citric acid, alcohol, glucose and water

SARAT TRAUMATOR THO 10.04.78-SU-601990

(23.12.80) A01n-01

10.04.78 as 601990 (70VE)

Compsn. for preservation of the brain membrane for transplantation contains an antiseptic (I), a buffer additive (II), rectified spirit (95%) (III), glucose (IV) and distilled water (V).

The storage life of this compsn. is extended by using as (I) Perhydrol and as the buffer Na₃P0₄ (IIa) and citric acid (IIb). The compsn. contains (in wt. %): (I) 2.9-3.1, (IIa) 0.29-0.33, (IIb) 0.12-0.17, (III) 13.2-15.3, (IV) 2.5-5.2, the balance is (V).

In tests, the outer hard brain membrane is preserved in the above soln. at 4-6 deg. C for 12 months showed no histological changes. Bul. 47/23.12.80. (3pp)

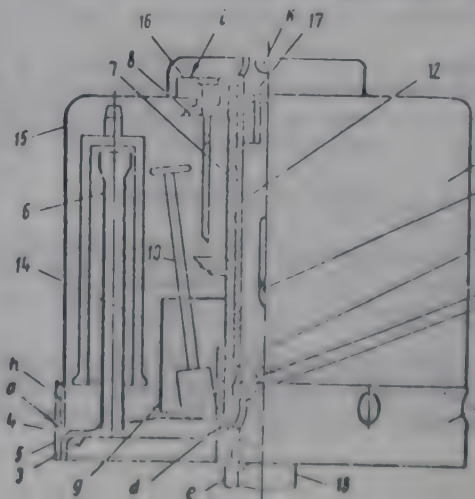
TUME = ★ D22 65621 D/36 ★ SU-789-117
Unit for sterilisation of syringes for medical use - has containers for cylinders, pistons and needles, and attachment to washing machine

TYMEN MEDOBORUDOVAN 21.07.78-SU-647963

P34 (23.12.80) A611-02/18

21.07.78 as 647963 (29GW)

Magazine for the sterilisation of syringes and needles, e.g. as



used in the medical profession as a central sterilisation service, consists of a body (1) with lid (2) and attachment for inserting the objects being sterilised. Preliminary washing is ensured with speeding up of the sterilisation process, by mounting partitions in the body and the cover so that cavities are formed, linked together by hollow tubular supports (7). The partitions and the tubular supports have holes for supplying the washing and disinfecting liquids. In the wall of the body and in the cover are holes to allow the spent liquid to escape. A tube with a dead end is movably positioned in the hollow support. Bul.47/23.12.80. (3pp Dwg.No.1)

JOAC/ ★ D22 65859 D/36 ★US 4284-454
Attaching elastic strips to nappy sections - by stretching transversely to nappy section movement
JOAC G 12.05.80-US-147996
P73 (18.08.81) B32b-31/10
12.05.80 as 147996 (1320DJ)

Elastic strips are stretched and attached to diaper sections cut from a continuous absorbant web. The strips are stretched in a direction transverse to the direction of movement of the diaper sections. The strips are then allowed to contract and pleat the diaper.

Elastic strips are intermittently stretched by grippers mounted on chain conveyor over the diaper sections, cut and attached to glue lines on the sections. Clamps are used to hold the cut strips as they are attached to the diaper sections.

The process differentiates from the prior art of US4081301 wherein the strips are stretched in the direction of movement of the diapers. (13pp)

ANPR- D22 05974 C/04 = US 4284-599
Chlorine based sterilising soln. contg. phosphate buffer - to reduce corrosion and tissue irritation, pref. stored in compartmented package

ANPROSOL INC 12.07.78-US-924018 (23.03.79-US-023494)
E34 S03 + P34 Q34 (E33) (18.08.81) *GB2025-229 C23f-11/18
23.03.79 as 023494 (926HM)

Sterilisation system for medical articles, esp. those made of metal involves the use of a hypochlorite, phosphate and a non-ionic surfactant which is compatible with chlorine, and the phosphates, which are all stored in separate sealed compartments, in a multi-compartment package. When required for use the contents of the packages are transferred to a vessel where they are mixed together and activated.

The mixt. obtd. consists in gms/100 ml soln. of 0.02-1% hypochlorite; 1.4-20% phosphate as di(alkali metal)phosphate, 0.08-21% mono (alkali metal) phosphate, and 0.1-0.5% surfactant. The lower limit of the di(alkali metal) phosphate is 4% when the hypochlorite is 0.5-1%. The soln. is non-irritating to tissue, and is stable for 24 hrs. Before mixing the constituents have a long shelf life. (20pp)

AMST- ★ D22 65929 D/36 ★US 4284-600
Steam sterilisation in sealed chamber - with steam jacket and having no drain line to reduce contamination
AM STERILIZER CO 06.12.79-US-100739
P34 (18.08.81) A611-02/06
06.12.79 as 100739 (295AS)

GUTW/ ★ D23 64258 D/36 ★DD -148-790
Fatty acid distn. waste gas purificn. - by recirculating high mol. fatty acids as absorbents
GUTWASSER H 29.01.80-DD-218698
J01 (10.06.81) C11b-03/12
29.01.80 as 218698 (39HM)

Method for the purificn. of vapours in the waste gas vacuum lines between thermal treatment appts. and subsequent vacuum sets, for pressure ranges of up to 13.3 Pa, esp. for fatty acid distn. plant, uses recirculated fatty acids for the absorption. These fatty acids are admixed to the waste gases with their fatty acid content in the vapours in a closed circuit. The admixture of the fatty acids in a quantitative ratio to the waste gases of at least 20:1.

This reduces the losses of fatty acid to zero. The new method requires less appts. and saves the maintenance required for the using operation. (9pp)

Articles to be sterilised are placed in an enclosed chamber which is then evacuated via a filter. Steam is admitted to a jacket to raise the temp. of the chamber to sterilising temps. Pref. a portion of the steam from the jacket is released into the chamber via a check valve.

The chamber does not have a drain line and condensate from the sterilisation process is collected between low dams at the bottom of the chamber. On completion of the sterilisation, the chamber can be evacuated to cause the condensate to evaporate.

Method is used to sterilise highly infectious material. The elimination of the drain connection from the chamber prevents the escape of partially sterilised infectious condensate which might create a hazard. (5pp)

CIBA D22 41995 C/24 = US 4284-828
4,5-Di:chloro-2-chlorophenoxy-phenol and methyl ether prepn. - by chlorinating 2-phenoxy-anisole and opt. demethylating, used as antimicrobial and disinfectant

CIBA GEIGY CORP 21.11.78-CH-011919

B05 C03 E14 (18.08.81) *EP--12-108 + C07c-41/22
09.11.79 as 092814 (937PW)

Mfr. of 4,5-dichloro-2(4-chlorophenoxy)phenol comprises selectively chlorinating 1 mole equiv. of 2-phenoxy anisole with 3-5 mole equiv. of chlorine at -10 deg. C to + 50 deg. C in a lower halo-aliphatic hydrocarbon contg. at least one H atom, lower aliphatic nitrile, dimethylformamide, dimethyl methanephosphonate or methanol. Then demethylating the 4,5 dichloro-2-(4-chlorophenoxy) anisole obtd. as an intermediate with an acid pref. proton acid or Lewis Acid e.g. AlCl₃ or BF₃.

The prod. is obtd. in high yield in white crystalline form without any unpleasant odours. (4pp)

BAXT D22 40089 D/22 = WP 8102-239
Red blood cell storage solns. - contg. adenine, sugar, salt and mannitol

BAXTER TRAVENOL LABS INC 05.02.80-US-118695
(20.08.81) *US4267-269 A01n-01/02

29.12.80 as U01749 (367NS) (E) US4082509 2.Jnl.Ref N(AU BR DE DK JP) E(DE FR GB SE)

Aq. solns. for storage of cells (esp. packed red blood cells) contain 5-50 mg/100 ml of adenine, 1000-3500 mg/100 ml of a sugar selected from glucose and fructose, 400-1200 mg/ 100 ml of NaCl, and 250-2000 mg/100 ml of mannitol.

The solns. pref. contain 20-30 mg/100 ml of adenine, 1500-2500 mg/100 ml of glucose, 500-1000 mg/100 ml of NaCl and 500-1500 (esp. 700-800) mg/100 ml of mannitol. The solns. are pref. used in an amt. of 60-200 (esp. 80-150) miper unit of packed red blood cells. The cells are pref. stored at 4 deg.C in the presence of CPD preservative.

Addn. of mannitol improves the viability of the stored cells. (11pp)

See Also

D16 FR 2474052

D23: OILS; FATS; WAXES

GUTW/ ★ D23 64258 D/36 ★DD -148-790
Fatty acid distn. waste gas purificn. - by recirculating high mol. fatty acids as absorbents
GUTWASSER H 29.01.80-DD-218698
J01 (10.06.81) C11b-03/12
29.01.80 as 218698 (39HM)

Method for the purificn. of vapours in the waste gas vacuum lines between thermal treatment appts. and subsequent vacuum sets, for pressure ranges of up to 13.3 Pa, esp. for fatty acid distn. plant, uses recirculated fatty acids for the absorption. These fatty acids are admixed to the waste gases with their fatty acid content in the vapours in a closed circuit. The admixture of the fatty acids in a quantitative ratio to the waste gases of at least 20:1.

This reduces the losses of fatty acid to zero. The new method requires less appts. and saves the maintenance required for the using operation. (9pp)

GIVA D23 12275 B/07 = DS 2860-714
1,4-Epoxy-1,3,3-trimethyl-2-cyclohexane prepn. - from corresp. 6-cyclohexene-4-ol cpd. using acid NL 29.1.79)

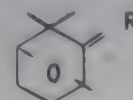
GIVAUDAN L & CIE SA 19.05.78-CH-005464 (25.07.77-LU-077834)

E13 (D13 D21 D25) (27.08.81) *DE2832-137 A23l-01/22 C07c-35/18 C07c-69/16 C07d-493/08 C11b-09

21.07.78 as 860714 Based on EPG000719 (068WB)

Cis/trans or trans/trans-1,4-epoxy-1,3,3-trimethyl 2 (2-buten-1-ylidene)-cyclohexane of formula (II) are new. R is the 2-cis (or trans)-buten-1-ylidene gps. as practically pure cpds.

Cpds. (II) are useful as perfumes and flavouring agents and may be prepd. by reacting 1,3,3-trimethyl-2-(3-hydroxy-butylidene) 6-cyclohexene-4-ol (I) in acid medium e.g. H₂SO₄, at 60-130 deg. C. (I) is new amd may be obtd. from 2-hydroxy-buetaionone. (12pp)



(II)

GIVA D23 03843 C/03 = DS 2960-374
Methylbutenyl tiglic acid ester - used as perfume or flavour, prepd. by esterifying tiglic acid with methyl-butenol
 GIVAUDAN L & CIE SA 28.06.78-CH-007037
 E17 (D13 D21 D25) (27.08.81) *EP---6-616 A231-01/22 A61k-07/46 C07c-69/52

27.06.79 as 960374 Based on EPG006616 (068WB)

New cpd. 2-methyl-2-buten-1-yl tiglate (I) may be used as a perfume or flavouring agent, (I) may be prepd. by esterifying 2-methyl-2-buten-1-ol with tiglic acid, anhydride or halide, by transesterifying a lower alkyl ester of tiglic acid with 2-methyl-2-buten-1-ol or by reacting a 2-methyl-2-buten-1-yl halide with an alkali metal salt of tiglic acid. (10pp)

GIVA D23 20561 C/12 = DS 2960-378
Norpatchoulenol perfume and aroma prepn. - via novel silylated cyclohexadiene and methano naphthalene intermediates

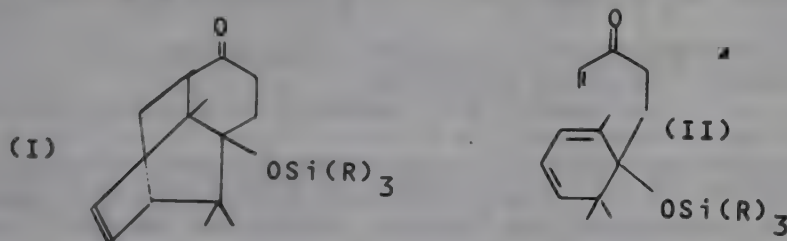
GIVAUDAN L & CIE SA 10.08.78-CH-008520

E15 (27.08.81) *EP---8-663 A61k-07/46 C07c-35/37 C07f-07/02

26.07.79 as 960378 Based on EPG008663 (068WB)

Methanonaphthalenes of formula (I) (where R is 1-4C alkyl, (1-4C alkyl substd.)-phenyl or phenyl, 1-4C alkyl) are new, e.g. 1,2,3,4,4a,5,6,8a octahydro-2-oxo-4a-trimethyl silyloxy 5,5,8a-trimethyl-1,6-methanonaphthalene. (I) may be prepd. by internal cyclisation of a cpd. of formula (II) in the liq. phase in an inert organic solvent, e.g. cyclohexane at 220-250 deg. C or in the gas phase at 500-800 deg. C.

(I) are useful for the prepn. of norpatchoulenol by carrying out in any order, cleavage of the trisubstd. silyl gp., hydrogenating the 7,8-double bond to a single bond, forming a hydrazone deriv. and removing the hydrazone gp. to form a 3,4-double bond. Norpatchoulenol is useful in perfumes. (11pp)



GIVA D23 46577 C/27 = DS 2960-379
Producing mixt. of perfume and flavouring components - by fermenting iron or ionone with specific fungi

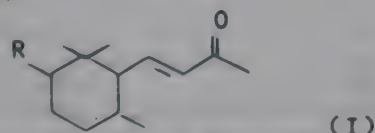
GIVAUDAN L & CIE SA 24.11.78-CH-012045

E15 P15 (D13) (27.08.81) *EP--12-246 A231-01/23 A24b-15/30 C11b-09 C12p-01/02

20.11.79 as 960379 Based on EPG0012246 (068WB)

A mixt. of cpds. (I) which are perfumes and/or flavouring agents is prepd. by fermenting with a fungus of the genus Botryodiplodia, Botryosphaeria or Lasiodiplodia a cpd. of formula (I) (where R is H or methyl and one of the dotted lines is an additional bond) esp. alpha- or beta- ionone or -irone. Fermentation of such fungi in presence of cpds. (I) in a suitable nutrient medium may result in dehydration and/or cyclisation of (I) or removal of the keto gp. and introduction of keto and/or hydroxy gps. elsewhere in the molecule.

The mixt. of cpds. produced may be recovered by solvent extraction and used as perfume or flavouring additive to foodstuffs, tobacco, perfumes, shampoos, detergents, tea, yoghurt, etc. (20pp)



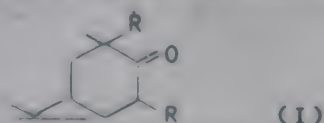
GIVA D23 41904 C/24 = DS 2960-380
3,7,7-Tri:methyl-3-or-5-methylbutenyl bi:cycloheptanone - useful perfume components giving flowery note

GIVAUDAN L & CIE SA 05.12.78-CH-012390

E15 (27.08.81) *EP--11-877 A61k-07/46 C07c-45/61 C07c-49/41 C11b-09

03.12.79 as 960380 Based on EPG011877 (068WB)

Carane derivs. of formula (I) are new (where one R is 3-methyl-2-butenyl and the other is H), i.e. 3,7,7-trimethyl-3-(3'-methyl-2'-butenyl)-bicyclo-(4.1.0)-heptan-4-one and 3,7,7-trimethyl-5-(3'-methyl-2'-butenyl)-bicyclo-(4.1.0)-heptan-4-one. (I) are useful as perfumes and as ingredients for perfumes and may be prepd. by reacting 3-caranone with a 3-methyl-2-butenylhalide. (12pp)



FIRM ★ D23 64377 D/36 ★EP--34-334
1,3-Di:methyl-3-buten-1-ol ester(s) - useful as fragrances and flavours

FIRMENICH SA 13.02.80-CH-001162

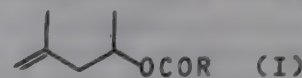
E17 (D13) (26.08.81) A231-01/22 A61k-07 C07c-69/07

11.02.81 as 100989 (367AT) (F) No-Citns. E(CH DE FR GB LI NL)

Esters of formula (I) are new, where R is H, opt. unsatd. 1-6C alkyl or aryl. 1,3-Dimethyl-3-buten-1-yl formate, acetate, propionate, butyrate, isobutyrate, isovalerate, tiglate, benzoate and salicylate are specifically claimed.

(I) can be prepd. by conventional esterification of 1,3-dimethyl-3-buten-1-ol (II), which can be prepd., e.g. as in JA 7670708.

(I) are useful as fragrances for incorporation in perfumes and perfumed prods., and flavours for incorporation in foods and drinks. They have green, floral and sometimes fruity aroma notes and herbal, floral, rose-like, resinous and/or fruity flavour notes; some are chamomile-like in aroma or flavour. (12pp)



SUMO ★ D23 64413 D/36 ★EP--34-430
Aryl-acetaldehyde prodn. from arylmethyl halide - by hydroformylation in presence of cobalt catalyst and base

SUMITOMO CHEMICAL KK 08.02.80-JP-015173

B05 C03 E14 (26.08.81) B01j-31/28 C07c-45/49 C07c-47/22

02.02.81 as 300425 (367BZ) (E) DS1955828 FR2022880 3.Jnl.Ref E(BE CH DE FR GB IT LI NL SE)

Prepn. of arylacetaldehydes (I) is carried out by reacting the corresp. arylmethyl halide (II) with CO and H2 in the presence of a Co cpd., an alkali(ne earth) metal base (III) and a solvent comprising a nitrile or a nitrile/hydrocarbon mixt.

Prefd. starting materials (II) are opt. mono- or disubstd. benzyl halides (esp. chloride), where the substituents are selected from 1-6C alkyl, 1-6C alkoxy and halogen. The Co cpd. can be a carboxylate, hydroxide, halide, oxide or nitrate or a carbonyl, phosphine or amine complex and is pref. used in an amt. equiv. to 0.0001-0.1 g-atom of Co per mole of (II). (III) can be an alkali(ne earth) metal oxide, hydroxide, carbonate, phosphate, silicate or borate (esp. Na2CO3 or K2CO3 and is pref. used in an amt. of 1 equiv. (or slightly more) per mole of (II). Suitable solvents include MeCN and MeCN/cyclohexane. The concn. of (II) in the solvent can be 1-80 wt.%. The CO:H2 molar ratio is pref. at least 1:1.

The reaction is pref. effected at 50-200 deg. C and at least 10 atm. for 0.5-10 hr.

(I) are useful as perfumes and intermediates for agricultural chemicals and pharmaceuticals. The process gives high yields (e.g. 67-91%) using only small amts. of catalyst. (16pp)

JOHO ★ D23 64647 D/36 ★GB 2070-023
Hydrogenation of unsatd. cpds., esp. polymers - in form of emulsion using homogeneous catalyst

JOHNSON MATTHEY LTD 16.02.81-GB-004757 (25.02.80-GB-006235)

A35 (03.09.81) C08f-08/04 C11c-03/12

16.02.81 as 004757 (367DJ)

Hydrogenation of multiple bonds in unsatd. cpds. is carried out by contacting the cpd. in the form of an emulsion with gaseous or dissolved H2 in the presence of a hydrogenation catalyst in soln.

The organic cpd. is pref. emulsified in an aq. medium (esp. water), opt. contg. -ne or more solvents added before or during addn. of the catalyst. The catalyst is pref. a Rh complex contg. a tert. phosphine arsine or stibine ligand, e.g. (Ph3P)3RhCl, ((Ph3P)2Rh (1,5-cyclooctadiene)) (+) (BF4)(-), RhHCO(PPh3)3 or RhHCO(PPh3)2. In the case of ionic catalysts, the Rh can be recovered by ion exchange.

The process is esp. useful for stabilising polymers contg. residual double bonds, e.g. acrylonitrile-butadiene-styrene (ABS) copolymers, produced by emulsion polymerisation with the advantage that hydrogenation can be effected in situ in the polymer emulsion without the need for large amts. of solvent to dissolve the polymer (cf. The process can also be applied to natural oils, e.g. soya oil. (4pp)

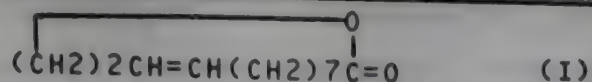
SODA ★ D23 65132 D/36 ★J5 6090-076
Perfume component unsaturated macrocyclic lactone - contg. 9-dodecene-12-olide in cis and trans forms

SODA KORYO KK(TORA) 21.12.79-JP-165531

E13 (D13 D21) (21.07.81) A61k-07/46 C07d-313

21.12.79 as 165531 (57AS)

New unsatd. macrocyclic lactone comprises 9-dodecene-12-olide of formula (I), in cis and trans forms. Both cis and trans forms have mint-like sweet fruit perfume. Each can be added to various perfume compsns. and can improve functional property of the perfume compsn. considerably. Generally (I) is used as 0.01-20 wt.%, pref. 0.1-15 wt.%, in essential oils, cosmetics, foods, cigarettes etc. (4pp)



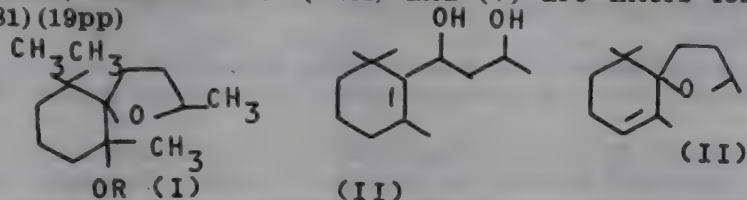
FIRM D23 55957 W/34 = J8 1034-271
1-Oxa-spiro-(4,5)-decane-6-ol and its esters - as perfumes and for modifying taste and aroma of foods, pharmaceuticals, tobacco etc.

FIRMENICH & CIE 07.06.74-CH-007776 (04.02.74-CH-001488)
B03 C02 E15 + P15 (D16 D18 D21) (08.08.81) *DE2504-618 A24b-03/12

04.02.75 as 012153 (BZ)

(A) Spiro cpds. of formula (I) (where R is H or 1-6C acyl) are new: Also new are 2,6,10,10-tetramethyl-1-oxa-spiro ec-3-en- 6-ol (VIII) and 6,7-epoxy-2,6,10,10 tetramethyl-1'oxa-spiro 4,5 decane (V). The cpds. are prepd. from cpds. of type (II) which are first cyclised to (III). The double bond is epoxidised and the prod. is reduced and esterified.

(I) modify the taste and smell of e.g. perfumes, soaps, detergents, cosmetics, food, animal feeds, pharmaceutical preparations, tobacco etc. (VIII) and (V) are inters for (I). (J55104881) (19pp)



FATS = * D23 65414 D/36 ★SU-777-054
Extn. of vegetable oils from seeds - using low frequency mechanical vibrations in two stages with different orientation

FATS RES INST 10.01.79-SU-711945

(07.11.80) C11b-01/10

10.01.79 as 711945 (70VE)

Vegetable oils extn. from sunflower, cotton, soya etc. seeds, is carried out in the field of low-frequency mechanical vibrations having amplitude of 5-10 mm, oriented perpendicularly to the surface of the material subjected to extrn. the liquid phase miscella is then sepd.

This method is improved by preliminarily applying extrn. with conc. liquid phase (15-30%) under the action of mechanical vibrations oriented parallel to the surface of the material subjected to extrn. The frequency of these vibrations is 900-1500 cycles per min. and their amplitude is 2-5 mm. This stage lasts 15-20 min. The main extraction is carried out with a liquid phase having concn. up to 15%. The vibration frequency is 200-400 cycles per min. the amplitude is 5-10 mm.; the duration is 29-30 min.

By this method, the percentage of fine particles passing into the liquid phase is decreased and, hence, the purity of the liquid phase is improved. Bul. 41/7.11.80. (3pp)

ANIS D23 76212 X/41 = US 4284-567
Cyanomethyl-substd tetrahydropyran- or -furan derivs - useful perfumes for detergent compsns (BE270976)

ANIC SPA 27.11.75-IT-029726 (27.03.75-IT-021724)

E13 (18.08.81) *DE2612-749 C07d-307/16 C07d-309/04

04.10.79 as 081885 Div ex 4150037, 4199516 (+ 26.3.76, 23.6.78, 22.1.79-US-670728, 918445, 005507) (936)

Cyclisation of 3,7-dimethyl-3-hydroxy-6-octenenitrile (I) comprises contacting (I) with a cationic exchange resin at a temp. of 20-180 deg.C consistent with the stability of the resin to (I) from an almost catalytic quantity to one or higher.

Prod. the reaction is effected by feeding (I) to a bed of resin. (I) is pref. dissolved in an inert solvent. Specifically a temp. of 20-150 deg.C produces 2,6,6-trimethyl-2-cyano methyl tetrahydropyran. Prods. are useful in the perfuming of detergents. (6pp)

SAFI- D23 06121 B/04 = US 4284-578
Direct transesterification of tri:glyceride oils - using a low temp. activated catalyst and a controlled multistage heating and cooling cycle

SAFINCO IZEGEM (VAND) 14.09.78-BE-870481 (14.09.78-BE-190485)

(18.08.81) *BE-870-481 C11c-03/02

11.09.79 as 074474 (945WB)

Directed interesterification of a triglyceride oil (mixt.) comprises adding low temp. active interesterification catalyst, activating the catalyst, then cooling to an upper cycle temp., Tu above the reference cloud point temp. of the oil, Tc.

A first temp.-time cycle lasting up to 20 mins. is carried out. This comprises rapidly cooling the oil from Tu to Tc or a preselected lower cycle temp. Tl below Tc and when necessary returning the temp. to Tc. At least three successive temp.-time cycles are then carried out, each lasting up to 20 mins. and each comprising raising the oil temp. from Tc to Tu, rapidly cooling to Tl and returning to Tc.

Process is relatively fast and provides a prod. with sufficiently high solid fat content, m.pt. and cloud point. (11pp)

PROC * D23 65922 D/36 ★US 4284-580
Fractionation of tri:glyceride mixts. - using surface-aluminised silica gel adsorbents for selective adsorption

PROCTER & GAMBLE CO 02.01.80-US-108999

E17 (18.08.81) C09f-05/10 C11b-03

02.01.80 as 108999 (478HM)

Mixt. of triglycerides (I) (6-26C acid moieties) with different 12-values (I.V.) is sepd. as follows: (a) a soln. of (I) in a solvent is treated with surface aluminated silica gel to selectively adsorb (I) of higher I.V.; (b) the remaining soln. contg. lower I.V. material is sepd.; (c) sepd. adsorbent is desorbed with a solvent; and (d) the soln. contg. (I) of higher I.V. is sepd.

Solvents in (a) and (c) (same or different) have (all at 25 deg.): solubility parameter (delta) 7-15; solubility parameter dispersion component (delta d) 7-9; solubility parameter polar component (delta p) 0-6; and solubility parameter H-bonding component (delta H) 0-11.5.

The adsorbent is from silica gel of mean pore dia. at least 75 Angstroms and surface area at least 100 m2/g; has surface Si:Al atom ratio 3-20:1, H2O-content less than 10% by wt., and particle size 200-20 mesh. The adsorbent has cation substituents which may and/or may not be capable of forming pi-complexes.

Simple, inexpensive process allows the sepn. or removal of higher or lower I.V. fractions from a range of (I) (sunflower oil or soybean oil, etc.) without polymerisation occurring. The adsorbent has no cation leaching problems, and has advantages over e.g. crystalline zeolites. (17pp)

SUMO D23 75544 B/42 = US 4284-818
1,1,3,4,4,6-Hexa:methyl-1,2,3,4-tetra:hydro naphthalene prepn. - by reacting para-cymene with di:methyl-butene, used for prepn. of mono:acetylated musk perfume substit.

SUMITOMO CHEMICAL KK 30.03.78-JP-037602

E14 (18.08.81) *DE2910-493 C07c-45/46 + C07c-02/68

12.03.79 as 019587 (393AS)

Prodn. of 1,1,3,4,4,6-hexamethyl 1,2,3,4-tetrahydro naphthalene (I), comprises reacting p-cymene and a 2,3-dimethylbutene in aliphatic hydrocarbon or cyclohexane solvent using as catalyst anhydrous Al halide of formula AlX1X2X2 (where X 1-3 are independently halogens, provided that X1-3 are not all F) in the presence of (1) R1R2CHX (I) (where R1 and R2 are alkyl or may form a cyclic ring; and X is halogen), (2) R1R2R3CX (II) (where R1-3 are alkyl or 2 of them may form a cyclic ring), (3) propargyl halide RCCCH2X (III) (where R is H or alkyl) or (4) R-CH=CH-CH2X (IV).

High yields of (I) are obtd. (I) is an intermediate to acetyl (I) which is valuable in perfumery due to its musk-like odour. (5pp)

Correction to Week D25

INFL * D23 45970 D/25★US4271-324
2,6,6-Tri-methyl-alpha-propenyl-cyclohexadiene methanol derivs. - used to enhance the taste or aroma of food-stuffs, tooth paste, chewing gums, medicines, tobacco etc.

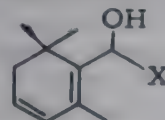
INT FLAVORS & FRAGR INC 08.02.80-US-119804 (15.05.79-US-039361)

B05 E15(D13 D18 D21) (02.06.81) C07c-33/14

08.02.80 as 119804 Div ex 4243823 (31pp1248NS)

2,6,6-Trimethyl-alpha-propenyl 1,3-cyclohexadiene-1-methanol derivs. of formula (I) are new when (1) in the form of a mixt. of the 2 cpds. in which X is cis- or trans -CH:CHMe, or (2) X is C(CH2)Me.

Cpds. (I) impart flavour and aroma to smoking tobacco, perfumes, colognes, perfumed articles such as soaps, etc. They are described in US4243623 (Der. 05650 D/04).



See Also

D13 EPG 007486

D13 US 4284819

D13 US 4284824

D24: SOAP; SOAP DETERGENTS

See

D21 GB 1596924

D25: OTHER DETERGENTS

LESI ★ D25 64215 D/36 ★BE-888-535
Conc. textile softening compsn. contg. cationic softener - nonionic surfactant and solvent plus electrolyte as viscosity regulator
LESIEUR COTELLE SA 23.04.81-BE-888535
A97 E19 (17.08.81) C11d

23.04.81 as 888535 (597DJ)

The compsn. comprises an aq. dispersion contg. 10-30% of one or more cationic textile softening agents, 0.2-3% of one or more nonionic surfactants and 3-7% of viscosity regulations obtained by the joint action of solvents and electrolytes. Other ingredients are colourants, optical whiteness, perfumes and preservatives.

Pref. softening agents are alkyl imidazolinium salts and quat. ammonium salts esp. distearyl dimethyl ammonium chloride, or an N-methyl NN-di (beta 14-18C) alkyl ethyl N-betahydroxyethyl ammonium methyl or ethyl sulphate. Pref. nonionic surfactants are alkoxyated fatty alcohols or alkylphenols. The ratio of softener/nonionic agent is from 10:1 to 50:1, esp. from 15:1 to 40:1. Solvents are pref. alcohols esp. ethylene and/or propylene and/or hexylene glycols.

The viscosity regulator enables a low viscosity concentrate with viscosity stable to prolonged storage, easy to distribute in an automatic doser, having a prolonged stability to temp. variations and dispersing easily and very finely in a softening rinse bath. (14pp)

UNIL ★ D25 49738D/28★CA1100-262
Fabric softeners based on quat. ammonium cpds. - contg. choline fatty acid ester salt.

UNILEVER LTD. 16.11.77-GB-047791

A97 E16 (05.05.81) D06m-13/34

15.11.78 as 316294 (13pp367DJ)

Fabric softening compsns. contain 1-80 wt.% of a quat. ammonium cpd. (I) and 0.5-25 wt.% of a choline ester salt (II) of formula $(Me_3NCH_2CH_2OCOR)(+)$ $X(-)$ (where R is 6-24C alkyl and X is an anion).

The compsn. can also contain 0.5-10 wt.% of a soil-release agent, esp. a copolymer of polyethylene terephthalate and polyoxyethylene glycol (e.g. 'Permalose T' or 'Zelcon TGF'. RTM's). Suitable cpds. (II) are described in FR1129648. Suitable cpds. (I) are of formula $(NR_1R_2R_3R_4)(+)$ $X(-)$ (where R_1 and R_2 are 8-22C alkyl, R_3 and R_4 are 1-3C alkyl and X is an anion).

The compsns. can be used on both cotton and synthetic fabrics. Inclusion of (II) improves both fabric-softening and antistatic activity and inhibits decline in antistatic properties during storage of the treated fabrics.

FARH D25 44361 B/24 = EP G002-282
Sodium tri:poly:phosphate for detergent slurry use - prepd. by adding oxidising agent to impure wet process phosphoric acid before concn.

HOECHST AG 05.12.77-DE-754020

E34 (26.08.81) *EP---2-282 C01b-25/40

04.12.78 as 101544 (481WB) (G) BE-663349 DE2522220 DS1082582 DS-379295 FR1510681 US-916354 E(BE CH DE FR GB NL)

Sodium tripolyphosphate (I) is produced, using oxidising agents (II), from wet-process phosphoric acids (III) contg. organic impurities and P2O5 contents of less than 20 wt.% by neutralising (III) to the Na:P mol. ratio corresp. to (I); and the orthophosphate solns. or suspensions so obtd. are sprayed, in a single process step, in a spray tower heated to 300-500 deg.C with combustion gases.

To produce (I) suitable for preparing detergent slurries and which causes a difference of at least 7 deg.C in the hydration test (ROH) between the temp. values measured after 1 min. and after 5 mins, (II) is added to (III) which are then conc. to a P2O5 content of 27-32 wt.%; and only then are (III) neutralised to the required Na:P ratio. Pref. 0.5-2, esp. 1 wt.% of (II), based on P2O5 are added to (III). (6pp)

SHER- D25 86394 C/49 = EP --34-149
Foam stabiliser for foam contg. alkyl benzene sulphonate(s) - alkoxyalkyl di (hydroxyalkyl) amine oxide(s), used in washing powders etc.

SHEREX CHEM CO INC 27.06.79-US-052665

E16 (E14) (26.08.81) *BE-884-057 B01j-13 C07c-93/02 C11d-03/30 23.06.80 as 901373 Based on WP8100106 (597WB) (E) US3317430 US3449431 US3341459 US3402128 US3449430 US3456012 E(DE FR GB NL)

A foam stabiliser for foam contg. an alkylbenzene sulphonate foaming agent is an amine oxide of formula $R1-O-R2-N(R3)(R4)-O$ (I)

(in which $R1$ is 4-11C alkyl; $R2$ is 2-4C alkylene and $R3$ and $R4$ are each 1-4C hydroxyalkyl). (I) is used in foamable compsns. which may be in liq., powder or gel form.

Pref. cpds. are those in which $R3$ and $R4$ are each 2-4C hydroxyalkyl, esp. both hydroxyethyl; $R1$ is 8-11C alkyl and $R2$ is propylene. A mixt. of cpds. (I) with different $R1$ gps. may be used. Pref. sulphonates are dodecylbenzene- and tridecylbenzene-sulphonates.

Cpds. (I) are used in clothes- and dish-washing compsns. bath foams, hair rinses, etc. They are relatively inexpensive, are very effective and are less irritating to the skin and the eyes than alkanolamide stabilisers. (35pp)

HENK D25 22168 C/13 #EP --34-194
Pourable nonionic surfactant compsn. prodn. - by premixing fatty alcohol condensate with propylene oxide and ethylene oxide with e.g. builder salt

HENKEL KG AUF AKTIEN 28.08.78-DE-837504 (18.02.80-EP-100803)

A97 E17 (A25) (26.08.81) *DE2837-504 C11d-17/06 + C11d-01/72 C11d-03/12

18.02.80 as 100803 (1251KB) (G) DE1692017 DE2535792 DE2519655 E(AT BE CH FR GB IT NL SE)

Prodn. of pourable nonionic surfactant compsn. comprises mixing a surfactant of formula $RO-(C_2H_3(CH_3)-O)_m-(C_2H_4O)_n-H$ (I) (where R is 8-20C aliphatic hydrocarbyl; m is 0.5-8; n is 2-20; pref. (I) have R is 18-12C alk(en)yl; m is 1-5; n is 3-15 and n is 2-10 x m), with a powdered-to-granular component of the washing/cleaning compsn. The resulting premix is then blended with the other components. Pref. (I) is blended with a builder salt to give a premix of 5-35(7-20)wt.% (I) content, or with Na perborate tetrahydrate to give a premix of 5-20(7-15)wt.% (I) content.

Compsns. have good flow properties which are retained when stored at not more than 10 deg.C, and have no tendency to form dust or lumps. The granulate is prod. with relatively low energy consumption and time requirement and is free of unpleasant odour or excessive foaming. (23pp)

BADI D25 62483 D/35 = EP --34-275
Butoxylated ethylene oxide adduct to higher alcohol - used as low-foaming biologically degradable surfactant in dish-washing compsns.

BASF AG 14.02.80-DE-005515

A97 E17 (A25) (26.08.81) *DE3005-515 C11d-01/72

28.01.81 as 100589 (200HM) (G) DE1767173 DE2748126 DE1814439 CH-573467 DE2224992 E(BE CH DE FR GB IT LI SE)

Nonionic tensides, (I), prepd. by reacting at least one 1-14-times ethoxylated 8-20C alkanol with 1,2-butylene oxide, in molar ratio 1:1.6 to 1:2.4, are used in biologically decomposable and low-foaming washing- and rinsing compsns.

The 8-20C alkanols advantageously show low branching and are prepd. esp. by the Ziegler- or oxo-synthesis. A 10/12C cut, obtd. by the Ziegler synthesis, is partic. suitable. Clear rinse compsns. can contain, by wt., 7-50% (I), 1-20% diol:1-20% alkyl sulphonate and 0-30% acid component. (I) are used esp. in clear-rinse step of industrial dish-washing machines, e.g. in hotel kitchens. Biological degradation exceeds 80%. (9pp)

PROC D25 36137 D/20 = EP -34-387
 Lq. mulls contg. dispersed solid phase - contg. liq. nonionic surfactant, dispersed particulate material, and chain-structure clay
PROCTER & GAMBLE CO 14.02.80-US-121359
A97 E19 (E16) (26.08.81) *US4264-466 C11d-03/12 + C11d-17
 04.02.81 as 200131 (JB) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL)
 Lq. mull having a liq. phase and a dispersed solid phase consists of (a) 30-95% of a liq. nonionic surfactant (I); (b) 1-65% of a dispersed particulate material (II) insol. in (I); and (c) 1-15% of a chain structure type clay (III).
 (III) is pref. an attapulgite esp. sepiolite clay and amt. used is pref. 2-12%, esp. 4-10%, partic. ca. 8%. Mulls pref. contain less than 10% esp. not more than 1% H₂O; 40-75%, esp. 406-% partic. ca. 54% (I); and 15-55% esp. 20-45%, partic. ca. 35% (II).
 Inclusion of (III) into the mulls improves the physical stability of the mulls so that (II) (e.g. builders) of ordinary particle size may be incorporated in the compsn. (78pp)

PROC D25 41968 D/23 = EP -34-393
 Lq. dishwashing detergent compsn. - contg. anionic surfactant, fatty acid amide, reducing agent, protein denaturant and water
PROCTER & GAMBLE CO 19.02.80-US-122143
(26.08.81) *US4268-406 + C11d-01/86 C11d-03 C11d-17
 11.02.81 as 200170 (478BZ) (E) DS2424856 FR2230718 GB1469697 US3935129 US4001132 US3700601 DE2036477 FR2329746 E(BE DE FR GB IT NL)
 Lq. detergent compsn. contains (a) 15-50% of an anionic protein denaturant (IV); and (e) 20-88.5% water. The compsn. has pH of at least 9.5 as 0.4% soln. in water at 20 deg.C. In (II) (where R1 is 7-21C aliphatic hydrocarbon; R2 is 1-3C aliphatic hydrocarbon; m is 0-2).
 (I) is one or more water soluble salts of organic sulphuric reaction prods. contg. 8-22C alkyl, together with sulphonic acid and/or sulphuric acid ester radicals. (III) is a water soluble (bi)sulphite, thiosulphate, metabisulphate, (hypo)phosphorus acid hydrazine, or hydroxylamine salt, or stannite salt, or mixts. (IV) is (thio)urea, guanidine (or salts), (thio)biuret, NH₃, mono- or tri-ethanolamine, or mixts.
 Compsns. possess superior cleaning of protein and carbohydrate soils, and are esp. useful for the cleaning of tableware and kitchenware. In addn. the compsns. have no bad odour. (21pp)

BRIM ★ D25 64499 D/36 ★ FR 2474-051
 Lq. detergent compsns. contg. enzymes - stabilised by addition of salt of lower aliphatic acid
BRISTOL MYERS CO 30.07.80-US-173779
E19 (D16) (24.07.81) C11d-03/38 C12n-09/50
 02.01.81 as 000007 (520AS)
 Compsns. contg. (a) 0.01-15% of a salt of a low molecular weight aliphatic acid, (b) 0.006-5% of one or more proteases or alpha amylases or their mixtures (c) 1 to 25% of an alcohol ROH where R is 1-6C alkyl (d) 10-90% water, and optionally (e) 1-55% of an anionic or non-ionic surfactant or their mixtures, are new.
 Compsns. are used as detergents. The enzyme is stable; previous enzyme-contg. detergents have had to be in powder form because of enzyme instability in aq. solns. (15pp)

DOWO D25 67331 A/38 = GB 1597-047
 Aq. cleansing and conditioning compsn. for hard surfaces - e.g. vitreous ceramic, contains poly-di-methyl siloxane, abrasive, colloidal silica, nonionic surfactant and acid
DOW CORNING CORP 07.03.77-US-775080
A97 E36 (03.09.81) *DE2809-371 C11d-01/66 C11d-03/60
 03.03.78 as 008516 (965AS)
 Aq. cleaning and conditioning compsn. contains (a) 0.1-10 wt.% polydimethyl siloxane fluid, (b) 10-50 wt., abrasives, (c) colloidal silica, (d) a nonionic surfactant in a sufficient amt. to flocculate (c), (e) sufficient acid to provide a pH of less than 4 for the compsn. and (f) water. The wt. ratio (c + d):e is less than 15:1. Pref. (a) is emulsified in water. Pref. (c) is flocculated from aq. suspension. Pref. the compsn. also contains a thickener.
 (I) removes stains from glass-ceramic surfaces, and retards the formation of stains on them. The compsn. has improved resistance to water loss, e.g. by evapn. and absorption, during use. (7pp)

NIRA-★ D25 65229 D/36 ★ J5 6090-898
 Detergent compsn. for cleaning metal bath tubs - contains sodium perborate, sodium bicarbonate, sodium tri-polyphosphate, ion sealing agent and anionic surfactant
NIPPON RASCAT KK 25.12.79-JP-169639
E34 (23.07.81) C11d-07/02
 25.12.79 as 169639 (15NS)
 Detergent compsn. for metal family bath tubs comprises a

homogeneous mixture, contg. a main component involving sodium perborate and NaHCO₃ which is mixed with a sec. component, involving sodium tripolyphosphate, an ion sealing agent and an anionic surfactant. In an example a compsn. contg. 50 wt.% sodium perboate, 24 wt.% sodium bicarbonate, 10.0 wt.% sodium carbonate, 10.0 wt.% sodium tri-polyphosphate, 1.0 wt.% of ion sealing agent and 5.0 wt.% anionic surfactant is prepared. The compsn. is homogeneously mixed at room temp. and 0.25 to 0.5 wt.% (in proportion to used bath water) is added in the used water in the bath tub after all family have finished bathing. The warm bath water contg. the compsn. kept under undisturbed conditions, and on the next day, a large amount of slime, scale and other impurities are floating in the water.

The sodium perborate salt and NaHCO₃ react with the water in the bath tub and oxygen foams are generated. The oxygen foams and alkali component give a synergistic effect. (2pp)

LESY = ★ D25 65493 D/36 ★ SU -787-454
 Synthetic washing powder free-flow density control appts. - has separate hopper for high density ingredient, and quantity conveyed to drying tower is related to deviation from set value
LENGD SYNTH DETERGE 19.07.78-SU-636147
T06 (17.12.80) C11d-01/12 G05d-27
 19.07.78 as 636147 (840GW)
 Appts. for producing synthetic washing powder with specified free-flow density contains a receptacle for ingredients, pump, drying tower, density sensors, correlators, adder and regulator. It has greater reliability and productivity and is used in the foodstuff industry. Introduction of a hopper for material of high free-flow density and a continuous weighing sensor to regulate a conveyor enables a lead signal to be produced in order to reduce inertia or process line units. Bul. 46/15.12.80. (3pp)

PROC ★ D25 65895 D/36 ★ US 4284-524
 Automatic dishwashing detergent compsn. - contg. poly:acetal carboxylate(s), but free of highly alkaline cpds. or other organic builders

PROCTER & GAMBLE CO 30.06.80-US-164710
A97 E19 (E34) (18.08.81) C11d-07/56
 30.06.80 as 164710 (478AT)
 Automatic dishwashing compsn. contains (a) 20-60% of a detergency builder (I); (b) 10-30% alkali metal silicate solids (II) (to give 5-15% SiO₂); (c) an active Cl₂ cpd. (III) (to give 0.5-3% available Cl₂); (d) 1-9.5% low foaming surfactant (IV); and (e) 1-30% of a stabilised H₂O-soluble polymer -(CH(CO₂M)O)_n (V). (Where M is alkali metal, NH₄ (and tetra(1-4C) alkyl), or 1-4C alkanolamine; n averages at least 4; and no. of polyacetal carboxylate segments are at least 50% by wt. of total polymer).
 (I) is an alkali metal tripolyphosphate, pyrophosphate, orthophosphate, or carbonate or mixts. (III) is e.g. dichloroisocyanuric acid (or Na or K salt), 1,3-di-Cl-5,5-di-Me hydantoin, N,N'-di-Cl-benzoylene urea etc. or mixts. (IV) is: the condensn. prod. of an opt. branched opt. unsatd. 10-20C alcohol or acid With 4-50 mol. ethylene oxide (EO) (the prod. opt. capped With propylene or butylene oxide and/or short chain alcohols and/or short chain acids); polyethylene of mol. wt. 1400-30,000; the condensn. prod. of (8-18C) alkyl-phenol with 4-50 mol. (EO); HO(C₂H₄O)_x(C₃H₆O)_y(C₂H₄O)_xH (y is at least 15; (C₂H₄O)_x + x is 20-90% of total cpd. wt.; mol.wt. 2000-10,000); or mixts. Compsn. has pH 9-10.9 at 2500 ppm and is free of materials having pH 12 or more at 1% in H₂O and other organic chelating builders.

Although compsns. contain reduced amts. of P and highly alkaline materials they have improved cleaning and esp. hard-H₂O filming performance. (7pp)

PROC D25 34773 D/20 = US 4284-532
 Isotropic liquid laundry detergent compsns. - contg. ethoxylated nonionic and amine oxide surfactants builders and hydrophilic surface active cpds.
PROCTER & GAMBLE CO 11.10.79-US-083907
A97 E17 (E14) (18.08.81) *EP-28-038 C11d-01/34 C11d-17/08
 11.10.79 as 083907 (937PW)

Stable liq. detergent comprises (a) 11.5% ethoxylated alcohol nonionic surfactant of formula R(C₂H₄O)_nOH, where R is aliphatic 12-13C hydrocarbyl radical, ave. n is 6.5 and has HLB value of 10-13, (b) 6.7% amine oxide surfactant of formula (I), where R1 is 12-16C alkyl and R2 and R3 are methyl, (C) (i) 5% water-soluble salt of citric acid, (ii) 7% water soluble salt of pyrophosphoric acid, (d) 12% hydrophilic material chosen from (ethoxylated) monoalkyl esters of phosphoric acid, having HLB value above 14, and (e) 46% water.

The compsn. has good cool water detergency for cleaning fabrics. (6pp)

R1R2R3N → 0 (I)

KAOS D25 42661 B/23 = US 4284-533
Low viscosity aq. stable liq. cleansing compsn. - contains partly crosslinked polyacrylic acid, hydrotropic agent, nonionic surfactant, scouring agent and pH regulator

KAOSOAP KK 28.11.77-JP-143042

A97 E17 (A14 A25 E14) (18.08.81) *DE2850-256 C11d-01/72 C11d-03/14

17.03.80 as 130765 (+ 2.11.78-US-957164) (937PW)

Liq. abrasive cleaner compsn. consists of (a) 0.1-0.6 wt.% crosslinked polyacrylic acid of 1000-100000 ave. degree of polymerisation and Brookfield yield value at least 100 g/sec.cm which is prepd. by copolymerising (meth)acrylic acid with triallyl isocyanurate (b) 1-10 wt.% hydrotrope of ROH or R'O(RO)nH, where R is 1-3C alkyl; R' is H, 1-4C alkyl, phenyl or benzyl; R is ethylene or propylene, n is H ave addn. mole number with provisos that n is 1-20 when R' is H and n is 1-3 when R' is other than H; (c) 0.5-10 wt.% nonionic synthetic organic surfactant having HLB of 10-17 pref. a condensate of ethylene

oxide and prim. or sec. 10-20C alcohol, (d) 7-20 wt.% water insoluble abrasive pref. silica, alumina, magnesia, titania, aluminosilicate, silicon carbide, iron oxide, powdery silica or powdery sands which have particle size of 2-150 microns.

The balance is water and water soluble pH regulator pref. NH₄OH, KOH, NaOH or alkanolamine maintaining compsn. at pH 8-8. Compsn. is stable and does not undergo sepn. after long storage time and can be dispensed easily because of its low viscosity. (5pp)

See Also

D23 DS 2860714 D23 DS 2960374

- * ABHE= 05.02.79 AS BELO HEAT-MASS D16 *SU-787-472
Monitoring activity of *Actinomyces griseus* 15 biomass - 65504D/36
- * AERO- 27.02.80 AEROFOAM LTD A96 D22 E33 K08 *GB 2069-842
Post-operative detection of surgical sponges by radiography - 64591D/36
- AIRW- 04.12.79 AIRWICK INDS INC D25 E34 (E17 E37) = J5 6090-896
Powdered carpet cleaning compsn. - 44338D/25
- * AJIN 28.04.77 AJINOMOTO GEN FOODS D13 *CA 1104-409
Canned coffee or tea prodn. - 64221D/36
- AJIN 03.04.79 AJINOMOTO CO INC B05 D16 = US 4284-721
Di:peptide prodn. in presence of immobilised protease - 73469C/42
- * AJIN 18.12.79 AJINOMOTO KK C03 D13 (D16) *J5 6088-764
Fish food replacing expensive fish meal - 64851D/36
- * AJIN 19.12.79 AJINOMOTO KK B05 D16 E16 *J5 6088-798
Fermentative prepn. of L-serine - 64858D/36
- * AJIN 20.12.79 AJINOMOTO KK A97 D13 (D16) *J5 6088-765
Food prepn. - 64852D/36
- * AJIN 20.12.79 AJINOMOTO KK D16 (D16 D17) *J5 6088-766
Dietetic food contg. edible elastic polysaccharide - 64853D/36
- AJIN 20.12.79 AJINOMOTO KK D13 E19 = J5 6088-776
Seasoning contg. mono:sodium glutamate, nucleotide - 50069D/28
- * AJIN 21.12.79 AJINOMOTO KK B05 D16 E16 *J5 6088-799
Fermentative prepn. of L-lysine - 64859D/36
- * AJIN 21.12.79 AJINOMOTO KK B05 D16 *J5 6090-046
Lysine deriv., useful as phase-inhibitor in fermentation - 65117D/36
- * AKMI= 12.12.78 AS KAZA MICROBIOL D16 *SU-787-469
Yeast strain *Saccharomyces vini* Aport 199 - 65501D/36
- * ALBE/ 22.01.80 ALBERT J P A92 D22 *FR 2473-841
Hygienic dirt tray for excrement of domestic cats - 64471D/36
- ALFA 06.04.77 ALFA-LAVAL AB A92 D16 J04 = GB 1597-181
Reaction vessel for continuous processes - 86413A/48
- ALFA 15.01.80 ALFA-LAVAL AB D13 S02 = SE 8000-308
Appts. for weighing and mixing powder and liq. - 55492D/31
- * ALOR= 08.01.79 AS LATV ORG SYNTH B04 C03 D16 S03 *SU-787-994
Human T and B lymphocyte differentiation - 65566D/36
- * ALOR= 08.01.79 AS LATV ORG SYNTH B04 C03 D16 S03 *SU-787-995
Human T and B lymphocyte differentiation - 65567D/36
- * ALTH- 16.09.80 ALTHOUSE TERTRE SA D18 E21 F09 *BE-885-252
Sulphonated black tris:azo dyes - 64182D/36
- AMAN 05.04.74 AMANO PHARM KK D16 = J8 1034-276
Isoamylase prodn. by culturing *Aerobacter aerogenes* - 83415Y/47
- AMAN 19.06.74 AMANO PHARM KK B04 D16 = J8 1034-277
Leucine amino-peptidase purification - 27428A/15
- * AMDE- 30.11.79 AMER DENTAL ASSOC A60 D21 E14 (A14 A96) *US 4284-551
Peroxide-cured vinyl monomer or unsatd. polyester compsn. - 65910D/36
- * AMPO= 12.06.78 A MED POLIOMYEL VIR B04 D16 *SU-789-115
Prepn. of antigen for viral gastroenteritis diagnosis - 65619D/36
- * AMST- 06.12.79 AM STERILIZER CO D22 *US 4284-600
Steam sterilisation in sealed chamber - 65929D/36
- * ANGE- 29.01.80 ANGEWANDTE VIROLOGI B04 D16 *DD-148-721
Immunological preparations e.g. virus antigen hydrolytic modification - 64230D/36
- ANIS 27.03.75 ANIC SPA D23 E13 = US 4284-567
Cyanomethyl-substd tetrahydropyran- or -furan derivs - 76212X/41
- ANIS 18.10.79 ANIC SPA A96 B04 D22 (B07) = DK 8004-388
Compsns. for treatment of exudative wounds and sores - 30819D/18
- ANPR- 23.03.79 ANPROSOL INC D22 E34 S03 (E33) = US 4284-599
Chlorine based sterilising soln. contg. phosphate buffer - 05974C/04
- ANVR 03.12.76 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24) = GB 1596-924
Alpha-amino acid prodn. from amino nitrile - 38450A/22
- * APVC 15.02.80 APV CO LTD D14 *EP--34-429
Vessel for heat treatment of particles - 64412D/36
- ASAH 17.06.74 ASAH CHEMICAL IND KK A88 D15 J01 (A14 D17) = J8 1033-975
Tubular ultrafiltration membrane prepn. - 23961A/13
- ASAH 01.04.77 ASAH CHEMICAL IND KK A91 D15 J01 = J8 1034-161
Mfr. of chelate ion exchange resin used as heavy metal adsorbent - 86784A/48
- ASAH 08.07.77 ASAH KASEI KOGYO K A88 D15 J01 (A26) = J8 1034-128
Poly:aryl ether sulphone semipermeable membrane - 04536B/03
- * ASMI= 30.11.78 AS USSR MICROORGANI B04 D16 *SU-787-464
Microbiological prodn. of fungal ribonuclease - 65497D/36
- * ASTR= 01.12.78 ASTRAKHAN MIN RIVER D15 H03 *SU-789-397
Separator for three/phase mixtures - 65760D/36
- * AUBE- 25.01.80 AUBERT & CIE ETS D14 *FR 2474-282
Rubber beam cutting machine which eliminates waste of double cutting - 64515D/36
- * AUTE= 20.09.78 AS UKR TECH HEAT PH C03 D13 *SU-789-068
Granulated solid prod. for e.g. young fish food - 65589D/36
- * AZEN= 13.09.78 AZERB ENG CON INST D15 H05 *SU-789-403
Flotation appts. for purificn. of effluents contg. petroleum prods. - 65763D/36
- BADI 14.02.80 BASF AG A97 D25 E17 (A25) = EP--34-275
Butoxylated ethylene oxide adduct to higher alcohol - 62483D/35
- * BADI 22.02.80 BASF AG A96 B04 D21 (A14 B07) *DE 3006-635
Micronised crosslinked, insoluble PVP as suspension agent - 64318D/36
- BAKP 17.01.80 BAKER PERKINS HOLD D11 T06 X25 = NL 8100-095
Liquid vol. and temp. control system - 55682D/31
- BAKP 17.01.80 BAKER PERKINS HOLDI D11 T06 X25 = SE 8009-148
Liquid vol. and temp. control system - 55682D/31
- * BAUE- 29.01.80 ROHREN & PUMP BAUER D15 *FR 2474-343
Rotary cutter to facilitate pumping of liq. manure contg. straw - 64521D/36
- BAUM- 22.01.80 BAUMGARTNER PAPIERS D18 F02 = FR 2473-853
Appts. for treating fibres used in cigarette filters - 55657D/31
- BAUM- 30.01.80 BAUMGARTNER PAPIER A35 D18 F06 (A88) = FR 2474-346
Plasticiser treatment of rope of filter fibres - 57400D/32
- * BAUM/ 25.01.79 BAUMARD A D15 H03 J01 *FR 2474-016
Skimmer rotor to recover oil etc. from water surface - 64491D/36
- BAXT 05.02.80 BAXTER TRAVENOL LABS INC D22 = WP 8102-239
Red blood cell storage solns. - 40089D/22
- * BDAI= 14.08.78 BELO DAIRY IND RES C03 D13 *SU-789-091
Substitute for plain milk for young farm animals - 65598D/36
- BEEC 01.11.77 BEECHAM GROUP LTD B03 D16 = AT 8004-492
Pseudomonic acid C from *Pseudomonas fluorescens* fermentation - 54894B/30
- BEEC 01.11.77 BEECHAM GROUP LTD B03 D16 = DS 2860-724
Pseudomonic acid C from *Pseudomonas fluorescens* fermentation - 54894B/30
- * BERG/ 29.01.80 BERGER K H D16 E17 J01 (D13) *DD-148-764
Acetone separation from azeotropic mixt. with aliphatic hydrocarbon(s) - 64247D/36
- * BHEA= 26.09.78 BELO HEAT MASS EXCH D15 J01 *SU-789-398
Heat treatment set for solutions - 65761D/36
- BIOP- 17.12.79 BIOPHYSICS RES CONS D22 E19 K08 S05 #CA 1104-322
Sterilisation of surfaces esp. hospital equipment - 40028C/23
- BIOP- 16.01.80 BIOPHYSICS RES CONS D22 E19 K08 S05 #NL 8000-253
Sterilisation of surfaces esp. hospital equipment - 40028C/23
- BIOP- 17.01.80 BIOPHYSICS RES & CO D22 E19 K08 S05 #FR 2473-889
Sterilisation of surfaces esp. hospital equipment - 40028C/23
- BIOT- 21.03.79 GES BIOTECHNOLOG D15 E19 H03 = US 4284-509
Treatment of marine oil spills - 75420C/43
- * BLAT- 22.02.80 BLATCHFORD & SONS L A96 D22 *GB 2069-847
Artificial limb thermoplastics stump socket - 64593D/36
- BODE/ 20.04.79 BODENRADER B J C04 D15 = EP--34-147
Treating manure with *Lactobacillus* strain and carbohydrate - 82610C/46
- BOEF 14.02.80 BOEHRINGER MANNHEIM GMBH B04 D16 = EP--34-320
Plasma heparin biological activity determn. - 62486D/35
- BOEH 05.02.79 BOEHRINGER INGELHEIM B04 D16 J04 S03 (S05) = DD-148-830
Dry reagent for turbidimetric lipase assay - 58876C/34
- * BOTT/ 09.05.80 BOTTS W M D14 X27 *US 4284-361
Egg whites whisk - 65831D/36
- BRAU- 15.01.80 KARL OTTO BRAUN KG A96 D22 F04 = NL 8100-129
Knitted elastic support bandage - 38195D/22
- BRAU- 15.01.80 BRAUN K O KG A96 D22 F04 = SE 8100-010
Knitted elastic support bandage - 38195D/22
- BRIM 06.10.77 BRISTOL MYERS CO D21 E14 = GB 1597-034
Oxidn. dye compsn. for hair - 31809B/17
- BRIM 23.01.80 BRISTOL MYERS CO A96 D21 = FR 2473-883
Method of permanent waving and conditioning - 56983D/32
- BRIM 23.01.80 BRISTOL MYERS CO A96 D21 = NL 8100-258
Method of permanent waving and conditioning - 56983D/32
- * BRIM 30.07.80 BRISTOL MYERS CO D25 E19 (D16) *FR 2474-051
Liq. detergent compsns. contg. enzymes - 64499D/36
- BRPE 17.01.80 BP CHEMICALS LTD C01 D22 E12 L02 (D11) = NO 8100-105
Solid di:potassium penta:propionate - 57279D/32
- BRUN/ 26.09.69 BRUN G C D D17 J01 = J8 1034-124
Continuous crystallisation procedure - 01838S/01
- BUCA/ 05.02.73 BUCALO L B04 D16 S03 S05 #AT 7401-093
Device for detecting micro organisms - 45378V/25
- * BURT- 22.01.80 BURTON-CORBLIN D13 *FR 2473-840
Demoulding milk prods. esp. soft paste cheeses - 64470D/36
- BUST/ 24.04.79 BUSTAMANTE C R D13 (D18) #CA 1104-410
Tobacco substitute prepn. from whole coffee cherries - 67815B/37
- BYFO- 27.11.79 BYFORD D & CO LTD A96 D22 F07 = DE 3044-404
Solvent-stiffenable fabric sleeve for splints or casts - 42437D/24
- CALI- 07.10.76 CANADIAN LIQUID AIR D15 = US 4284-510
Biological treatment of waste in open vessel - 46298D/26
- CARO 01.08.79 CARBORUNDUM CO D15 E36 J01 = GB 2069-991
Hard granular activated carbon prepn. - 17418D/10
- * CASO- 25.01.80 CASOLITH BV A11 D15 (A91 D17) *NL 8000-503
Modified vegetable protein crosslinkable to synthetic material - 65360D/36
- * CERE- 08.02.80 CEREAL SERVICES LTD D13 (D12) *GB 2069-813
Prodn. of foodstuffs, e.g. meat extenders, from comminuted seeds - 64586D/36
- * CETU- 14.06.78 CETUS CORP D16 E13 (E17) *US 4284-723
Prepn. of epoxide(s) from gaseous epoxides - 65984D/36

- *CHIY 22.12.79 CHIYODA CHEM ENG CO A88 D15 *J5 6089-897
Foamed plastics granules - 65068D/36
- CIBA 21.11.78 CIBA GEIGY CORP B05 C03 D22 E14 = US 4284-828
4,5-Dichloro-2-chlorophenoxy-phenol and methyl ether prepn. - 41995C/24
- *CIBA 17.12.79 CIBA GEIGY AG C03 D22 E14 F06 *DE 3047-219
Cyclopropyl-phenylacetic acid 3-benzyl-benzyl ester derivs. - 64347D/36
- CIST 29.01.80 CORNELIUS CO D15 = BR 8100-431
Water carbonating process - 58995D/33
- *CKDD-01.02.80 CKD DUKLA D15 *DE 3046-361
Full water desalination by preliminary water-softening - 64341D/36
- *COAT/ 22.01.80 COAT J D14 *FR 2473-851
Machine for sepg. trimming and cleaning bunches of shallots - 64474D/36
- COFF- 22.08.78 COFFEX AG D13 = AT 7904-743
Decaffeinating raw coffee - 16842C/10
- COHN/ 07.02.80 COHN C C D18 E36 F09 #WP 8102-243
Treatment of cigarette paper with alkali silicate - 14530C/08
- COKE 29.01.80 COCA-COLA CO D15 = BR 8100-431
Water carbonating process - 58995D/33
- COLB 04.02.80 COLLABORATIVE RES INC B04 D16 S03 = WP 8102-344
Antigen or antibody labelled liposome contg. encapsulated enzyme - 60987D/34
- COLG 05.01.76 COLGATE PALMOLIVE CO A96 D22 = AT 7609-784
Disposable absorbent baby's nappy - 32828Y/19
- COLG 09.08.76 COLGATE PALMOLIVE CO D22 = AT 7705-729
Disposable diaper with absorbent pad - 68424Y/38
- COLG 09.08.76 COLGATE PALMOLIVE CO D22 F04 = AT 7705-730
Babys disposable napkin etc. contg. hydrocolloidal material - 90086Y/51
- COLG 19.08.76 COLGATE PALMOLIVE CO D22 = AT 7705-960
Tape fastener for disposable diaper - 68421Y/38
- COLG 02.12.76 COLGATE PALMOLIVE CO D25 E19 = CA 1104-452
Elastic washing agent in piece form - 42523A/24
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = DE 3046-442
Dentifrices showing reduced tendency to dry out - 30831D/18
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = DE 3046-443
Soap bars contg. anti-cracking agent - 32610D/19
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = BR 8100-386
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COME- 27.04.77 COMET-INOX-SA D12 = GB 1596-873
Brine pickling process for meat, esp. hams - 78350A/44
- CONC 16.06.77 CONTINENTAL GROUP INC A97 D16 (D13 D22) = AT 7803-601
Packaging of foods and drinks - 04349B/03
- CORG 13.12.79 CORNING GLASS WORKS D16 (D13 D17) = DE 3045-179
Disinfecting immobilised enzyme compsns. - 46417D/26
- CORO/ 31.08.78 COROMINAS G P D12 = US 4283-812
Machine to form, cut and wrap hamburgers - 14229B/08
- *CORP 19.04.76 CPC INTERNATIONAL INC D16 (D17) *US 4284-722
Heat, and acid-stable alpha-amylase - 65983D/36
- CORP 15.02.80 CPC INTERNATIONAL INC B04 D16 = EP --34-470
Recombinant DNA contg. amylase coding gene - 62878D/35
- *CORR 18.04.80 CORNELL RES FOUNDATION B04 C03 D16 *BE -888-487
Protecting dogs against canine parvovirus - 64204D/36
- COUR 29.03.77 COURTAULDS LTD D15 F06 = GB 1597-342
Clarification of coloured aqueous dye effluent - 55141A/31
- CREA- 27.12.79 CREATIV-PATENTANSTA D15 = AT 7908-141
Sewage sludge composting plant - 60676D/34
- *CSIP/ 13.12.79 CSIPEK L D14 X25 *DE 3046-704
Fish feeding mechanism - 64345D/36
- CSIR 23.11.79 COMMONWEALTH SCIENT ORG C01 D22 E11 F06 = DE 3043-772
Insecticidal alkylthio:phenyl-phosphoro:thiolate ester(s) - 40699D/23
- CSIR 29.11.79 COMMONWEALTH SCIENT ORG A97 D15 J01 M25 (A21) = US 4284-512
Selective removal of ferric ions from aq. solns. - 44463D/25
- *CSIR 30.01.80 COMMONWEALTH SCIENT ORG D16 E17 H06 *FR 2474-527
Fermentative prodn. of ethanol - 64541D/36
- CURT- 14.02.80 CURTIS H INDS INC A96 D21 (A14) #EP --34-190
Water-based creme rinse compsn. for hair - 51483C/29
- DAIL 25.10.74 DAISEL LTD D15 J01 = J8 1034-324
Semipermeable membrane decontamination - 44786X/24
- *DAIR= 23.10.78 DAIRY IND RES INST D13 *SU -789-097
Milk-curd and protein product prodn. - 65604D/36
- *DAIR= 28.02.79 DAIRY IND RES INST D13 S03 (D16) *SU -787-986
Estimating penicillin residue in animal milk after drug therapy - 65558D/36
- *DAUC 21.12.79 DAICHISEIYAKU KK B04 D16 *J5 6090-098
Antibiotics DF-446A and DF-446B with antitumour activity - 65143D/36
- DEGS 04.10.79 DEGISSA AG D25 E34 = BE -888-527
Stable sodium percarbonate and perborate-contg. per:salt prepn. - 29210D/17
- DEJL- 05.08.77 DEJINT RES CO A97 D13 = AT 7805-347
Removing caffeine from green coffee beans - 09978B/06
- *DERC/ 25.01.80 DERCKX H A J M D13 *NL 8000-489
Lollipop making machine - 65358D/36
- DESP 26.10.78 DESOTO INC A97 D25 #CA 1104-450
Low phosphate content dishwashing detergent - 12699C/07
- DEUS 28.01.80 DEGESCH GMBH D13 #FR 2474-281
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- *DISP- 25.01.80 DISPOSABLE DEV LTD A84 D22 F04 *GB 2070-086
Knitted fabric esp. for incontinence underwear - 64681D/36
- DJON/ 19.02.76 DE JONG L W D15 J01 = AT 7701-106
Separator for liquids of different densities - 59388Y/34
- DOWO 07.03.77 DOW CORNING CORP A97 D25 E36 = GB 1597-047
Aq. cleansing and conditioning compsn. for hard surfaces - 67331A/38
- DUIN 21.04.77 DUPHAR INT RES BV B04 C03 D16 = GB 1597-259
Prodn. of attenuated transmissible gastroenteritis virus - 76283A/43
- *DUSK- 18.12.79 DUSKIN FRANCHISE KK D22 E12 *J5 6089-261
Gel-form aromatic deodorant compsn. - 64927D/36
- *DYNA- 13.08.76 DYNASCIENCES CORP B04 D16 *US 4284-725
Virus titration and identification system - 65986D/36
- DYNN 03.02.79 DYNAMIT NOBEL AG D21 E17 F06 H07 = DD -148 766
Prepn. of biodegradable, oxidn.-resistant, liq. ester mixts. - 60827C/35
- *EART- 21.12.79 EARTH SEIYAKU KK C03 D22 E15 *J5 6090-004
Insecticide for clothes - 65092D/36
- EAST 02.09.77 EASTMAN KODAK CO A96 C03 D13 = CA 1104-494
Pill for ruminants resistant to conditions in the rumen - 24176B/13
- *EBAR 25.12.79 EBARA MFG KK D15 J01 *J5 6089-805
Sedimentation tank equipment - 65023D/36
- *EBAR- 25.12.79 EBARA KOKI KK D15 J01 *J5 6089-813
Appts. for dewatering sand, sludge cake etc. - 65029D/36
- EISA 08.06.72 EISAI KK B02 D16 = J8 1034-280
Alpha-amino substd penicillin prodn - 44308V/24
- *ENGI= 26.09.78 ENG EQPT RES PLAN D15 *SU -789-425
Aerator for liquid effluent - 65770D/36
- ENIE- 17.10.79 ENIENTE NAZ IDROCA B05 D16 = DK 8003-945
Carbamyl alpha hydroxy acid prepn. - 29079D/17
- *EPID= 28.02.79 EPIDEMIOLOGY MICROB B04 D16 S03 *SU -787-998
Activation of lysozyme liberated from mite - 65570D/36
- ERAP 22.02.80 SOC NAT ELF AQUITAINE D21 E19 = GB 2069-839
Hydrating agents for keratinic materials - 47865D/27
- ERCA- 17.01.80 ERCA ETUD REAL CHAI A35 D22 X25 (A92) = FR 2473-888
Thermoplastic strip surface sterilisation - 55375D/31
- *ERDA= 12.07.78 EREV DAIRY COMBINE D13 *SU -789-089
Sour milk prod. prodn. - 65596D/36
- *EURO- 22.02.80 EUROTECH INT LTD D15 H03 J01 *GB 2070-146
Pumping apparatus for collecting polluted liquids - 64691D/36
- FARB 28.10.75 BAYER AG B02 C02 D13 = CA 1104-562
Broad spectrum antimicrobial cephalosporins - 30932Y/18
- FARB 24.09.76 BAYER AG A88 D15 J01 (A23) = CA 1104-748
Semipermeable membranes comprising aromatic polyamide - 23336A/13
- FARB 14.02.78 BAYER AG A26 C02 D17 E13 (A25 A60) = EP G003-585
Azulmic acid stabilised with carbonyl cpds. - 61658B/34
- FARB 11.04.78 BAYER AG B04 D16 J04 S03 (B05 S05) = AT 7902-620
N-Carboxy:acyl amino acid ester derivs. - 75673B/42
- FARB 18.04.78 BAYER AG D21 E14 = US 4284-621
Cosmetic light-protective compsn. - 80936B/45
- *FARF 18.01.80 VEB CHEMIEK BITTERF C03 D13 *DD -148-715
Anticaking additive for mineral mixts. for animal nutrition - 64229D/36
- FARH 01.12.76 HOECHST AG A11 D12 (A25 A97) = GB 1596-922
Moulded objects, esp. packaging materials, including sausage skins - 38504A/22
- FARH 01.12.76 HOECHST AG A11 D12 (A25 A97) = GB 1596-923
Permanently plasticised modified hydrated cellulose article - 38503A/22
- FARH 21.02.77 HOECHST AG A96 D22 = GB 1596-823
Laminate for bandages or dressings - 63621A/36
- FARH 20.08.77 HOECHST AG D13 E17 (D21 E16) = DS 2860-715
Simultaneous prepn. of fatty acid nitrile(s) and glycerol - 18378B/10
- FARH 05.12.77 HOECHST AG D25 E34 = EP G002-282
Sodium tri:poly:phosphate for detergent slurry use - 44361B/24
- FARH 19.01.80 HOECHST AG B04 D16 = NL 8100-210
Polypeptide with amino acid sequence of primate pro:insulin - 55640D/3
- FARH 19.01.80 HOECHST AG B04 D16 = SE 8100-241
Polypeptide with amino acid sequence of primate pro:insulin - 55640D/3
- FARH 16.02.80 HOECHST AG B04 D16 = BE -887-529
Microbiologically produced interferon poly:peptide - 64373D/36
- FARH 16.02.80 HOECHST AG B04 D16 = BE -887-530
Microbiologically prepd. human interferon - 62879D/35
- FARH 16.02.80 HOECHST AG B04 D16 = EP --34-306
Microbiologically prepd. human interferon - 62879D/35
- *FARH 16.02.80 HOECHST AG B04 D16 *EP --34-307
Microbiologically produced interferon poly:peptide - 64373D/36
- *FATS= 10.01.79 FATS RES INST D23 *SU -777-054
Extn. of vegetable oils from seeds - 65414D/36
- FERM- 27.02.80 INST PRZEM FERMENT D16 (D18) #GB 2069-814
Enzymatic processing of opt. fermented tobacco - 62470D/35

- FIRM 04.02.74 FIRMENICH & CIE B03 C02 D23 E15 (D16 D18 D21) = J8 1034-271
 1-Oxa-spiro-(4,5)-decane-6-ol and its esters - 55957W/34
- FIRM 05.07.78 FIRMENICH SA B05 D13 E15 (B07 D21 D23) = EP G007-486
 3-Methyl tri:cyclo(6.2.1.0)-undecane derivs. - 09534C/06
- *FIRM 13.02.80 FIRMENICH SA D23 E17 (D13) *EP --34-334
 1,3-Di:methyl-3-buten-1-ol ester(s) - 64377D/36
- FISH- 17.10.79 FISHER SCIENTIFIC B04 D16 S03 (S05) = DE 3039-157
 Immunological active cpd. tagged with a metallo:porphyrin - 40731D/23
- FOOD- 29.01.80 FOOD SCI INST FOUND A97 D12 = NL 8100-158
 Sepn. of globin from animal blood for use as food protein - 58791D/33
- *FOOD= 01.02.79 FOOD IND PLANTS DES D11 *SU -787-280
 Bread loaves orienter - 65463D/36
- *FOOD= 26.02.79 FOOD IND INST D16 *SU -787-468
 Continuous champagnisation of wine liquor - 65500D/36
- FOOD= 18.01.80 FOOD IND EXTRAMURAL D16 = FR 2474-050
 Continuous sparkling wine mfr. - 55385D/31
- FOSS- 07.10.77 FOSS N ELEC A/S D13 E13 J04 S03 = EP G001-513
 Determining nitrogen in a sample - 31967B/17
- FREU 10.02.77 FREUDENBERG, CARL FA A96 D22 (A11 A17) = GB 1596-891
 Multilayered compress for wounds - 76243A/42
- FUJF 22.02.74 FUJI PHOTO FILM KK D15 G06 = J5 0114-862
 Treating waste photographic soln. contg. silver halide - 65313D/36
- *FUJF 22.02.74 FUJI PHOTO FILM KK D15 G06 *J8 1033-996
 Treating waste photographic soln. contg. silver halide - 65313D/36
- FUJI 27.07.76 FUJISAWA PHARM KK B05 D16 = FR 2474-505
 Hydroxyamino-alk(en)yl-phosphonic acid (derivs.) - 84781Y/48
- *FUJI- 26.12.79 FUJI FIBREGLASS KK A87 D16 F06 *J5 6091-076
 Enzyme carrying readily dispersible chopped glass strands - 65292D/36
- *FUKU- 19.12.79 FUKUOKA SEISHI KK D13 *J5 6088-752
 Ethylene adsorbent for keeping vegetables and fruit fresh - 64849D/36
- *FUKU/ 25.08.77 FUKUDA H D16 *US 4284-724
 Highly conc. aerobic cultivation of yeasts - 65985D/36
- *FUND/ 21.02.80 FUNDERBURK L D21 *DE 3006-513
 Opt. ground viscum album-contg. dentifrice compsn. - 64308D/36
- GALL- 05.10.76 GALLAHER LTD A97 D18 (A11) = GB 1597-101
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- GALL- 00.00.77 GALLAHER LTD A97 D18 (A11) = GB 1597-102
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- GALL- 00.00.77 GALLAHER LTD A97 D18 (A11) = GB 1597-103
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- GALL- 00.00.77 GALLAHER LTD A97 D18 (A11) = GB 1597-104
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- GALL- 00.00.77 GALLAHER LTD A97 D18 (A11) = GB 1597-105
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- *GALL- 09.12.77 GALLAHER LTD A97 D18 *GB 1597-106
 Pipe smoking material in form of single-fill plug - 64568D/36
- GALL- 00.00.80 GALLAHER LTD A97 D18 (A11) = GB 1597-107
 Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- *GENO 16.10.79 GENERAL FOODS CORP D13 *J5 6088-763
 Improvement of functionality of proteinaceous material - D/36
- GENO 14.02.80 GENERAL FOODS CORP D12 #EP --34-227
 Dry coating compsn. for baked fowl - 48096C/27
- *GEOR- 28.01.80 GEORGES & FILS SA D14 J08 *FR 2474-669
 Auto control of rotary drum dryer for vegetable prod. - 64552D/36
- *GERL/ 19.07.79 GERLACH H D22 X22 *FR 2474-406
 Motor vehicle deodoriser contg. renewable perfumed cartridge - 64531D/36
- *GIDR= 12.06.78 GIDROLIZPROM D17 T06 (D16) *SU -787-476
 Vegetal material percolation hydrolysis yeast prodn. control - 65507D/36
- GIVA 25.07.77 GIVAUDAN L & CIE SA D23 E13 (D13 D21 D25) = DS 2860-714
 1,4-Epoxy-1,3,3-tri:methyl-2-cyclohexane prepn. - 12275B/07
- GIVA 28.06.78 GIVAUDAN L & CIE SA D23 E17 (D13 D21 D25) = DS 2960-374
 Methyl:butenyl tiglic acid ester - 03843C/03
- GIVA 10.08.78 GIVAUDAN L & CIE SA D23 E15 = DS 2960-378
 Norpatchoulenol perfume and aroma prepn. - 20561C/12
- GIVA 24.11.78 GIVAUDAN L & CIE SA D23 E15 (D13) = DS 2960-379
 Producing mixt. of perfume and flavouring components - 46577C/27
- GIVA 05.12.78 GIVAUDAN L & CIE SA D23 E15 = DS 2960-380
 3,7,7-Tri:methyl-3-or-5-methyl:butenyl bi:cycloheptanone - 41904C/24
- GLAX 31.10.79 GLAXO GROUP LTD B02 D16 = J5 6090-090
 Antibacterial cephamycin derivs. - 36694D/21
- GLSM 05.11.79 MARVIN GLASS & ASSOC D13 = NO 8101-766
 Flat disc confectionery novelty - 40173D/22
- GNSS 20.09.76 GUINNESS A & SON CO A92 D16 = CA 1104-511
 Dispensing drink, partic. stout, with a frothy head - 06446A/04
- *GOOD 04.02.80 GOODYEAR TIRE & RUBBER D15 E14 *US 4284-516
 Removing low level polychlorinated bi:phenyl contaminants from fluids - 65888D/36
- GOUP/ 05.04.78 GOUPIL J J B06 D13 E34 (D21) #US 4284-650
 Chewing gum contg. water soluble fluoride - 58774A/33
- GRAC 22.02.80 GRACE W R CO D25 E16 (D15) = GB 2070-010
 Sec. amine prodn. from olefin cpds. - 47872D/27
- GRAC 22.02.80 GRACE W R CO A26 D15 E16 G02 (E14) = GB 2070-011
 Alkylation of poly:amine for mfr. of surfactants, softeners, etc. - 47873D/27
- GRAC 22.02.80 GRACE W R CO A14 D25 G02 (D15) = GB 2070-025
 Prepn. of poly:amine:amide polymer - 47871D/27
- *GRAI= 27.12.78 GRAIN PRODS INST D13 *SU -776-633
 Oats groats treatment - 65406D/36
- GREN/ 13.02.79 GRENNET E P C04 D15 E37 = FR 2474-646
 Simultaneous prodn. of energy, water and by products for fuel - 60935C/35
- GRUD/ 22.08.78 GRUDA Z D13 = US 4283-923
 Continuous bulk freezing of food - 54020C/31
- GUIL/ 16.05.79 GUILLOT J A96 B07 D21 S05 #AT 7903-618
 Mouldable cutaneous electrode - 72191B/40
- *GUTW/ 29.01.80 GUTWASSER H D23 J01 *DD -148-790
 Fatty acid distn. waste gas purificn. - 64258D/36
- *HAAS/ 27.02.80 HAAS F D11 *GB 2069-824
 Wafer baking compartment with lateral sealing strips - 64588D/36
- *HAEM= 26.05.78 HAEMATOLOGY BLOOD B04 D16 *SU -787-463
 Prodn. of fungal thrombus dissolving enzyme - 65496D/36
- HAGI/ 27.07.76 HAGIWARA T D15 J01 = J5 3014-466
 Liq. filter, e.g. for pond - 65310D/36
- *HAGI/ 27.07.76 HAGIWARA T D15 J01 *J8 1033-976
 Liq. filter, e.g. for pond - 65310D/36
- HAUN 07.04.78 HAUNI-WERKE KORBER KG A88 D18 F07 (A11) = US 4283-998
 Cigarette filter tip strand machine - 77506B/43
- HENK 30.11.78 HENKEL KG AUF AKTIEN D21 E14 = AT 7907-562
 Anti-dandruff hair treatment prepn. - 41888C/24
- HENK 29.11.79 HENKEL KG AUF AKTIEN A97 D25 E17 (A25) = J5 6088-500
 Detergent compsns. - 44403D/25
- HENK 29.11.79 HENKEL KG AUF AKTIEN D21 E14 (E13) = J5 6090-043
 1-Substd. 2-hydroxy-propyl 2,4-di:aminophenol-ether(s) - 44402D/25
- HENK 07.12.79 HENKEL KG AUF AKTIEN D14 = J5 6089-802
 Freeze concn. combined with ultrafiltration - 44261D/25
- HENK 18.02.80 HENKEL KG AUF AKTIEN A97 D25 E17 (A25) #EP --34-194
 Pourable nonionic surfactant compsn. prodn. - 22168C/13
- HERC 07.12.79 HERCULES INC A25 D21 H01 (A96 A97) = J5 6090-831
 Ethylene oxide copolymer prepd. using small amt. of epoxide - 46424D/26
- *HEYE/ 19.11.79 HEYER R D15 *FR 2474-474
 Installation to purify organic waste from mixed settlement - 64533D/36
- HIEJ 16.11.77 HITACHI PLANT ENG CONST D15 E33 M25 = J8 1034-160
 Purifying zinc-contg. waste water - 53277B/29
- *HILL= 24.11.78 HILL FARM SUBTROPIC D14 *SU -776-592
 Fruit or nuts cleaning machine - 65405D/36
- HITD 09.08.76 HITACHI CABLE KK D15 M14 = J8 1034-636
 Copper ion separation from metal rinsing soln. - 26363A/14
- *HITK 24.12.79 HITACHI METAL KK D15 J01 *J5 6089-811
 Belt type dewatering unit - 65027D/36
- HOFF 25.11.66 HOFFMANN-LA ROCHE AG B02 D22 = DK 8005-353
 Phenazine derivs antibacterials - 32292F/00
- HOFF 25.11.66 HOFFMANN-LA ROCHE AG B02 D22 = DK 8005-354
 Phenazine derivs antibacterials - 32292F/00
- HOFF 18.02.77 HOFFMANN-LA ROCHE AG D16 S03 S05 = GB 1596-811
 Microorganism detection by liquid and solid culture media - 62154A/35
- HOFF 18.02.77 HOFFMANN-LA ROCHE AG D16 S03 S05 = GB 1596-812
 Microorganism detection by liquid and solid culture media - 62154A/35
- *HONP 26.12.79 HONSHU PAPER MFG KK A94 D22 F04 *J5 6091-052
 Nonwoven fabric laminate for sanitary napkin etc. - 65285D/36
- HOST 02.11.79 HOLLISTER INC A96 B05 D22 = J5 6089-252
 Protective sealing compsn. for operatively implanted orifices - 34675D/20
- *HOUS- 28.01.80 HOUSE FOOD IND KK D13 *FR 2474-506
 Prodn. of porous saccharide granules - 64539D/36
- *HOUS- 05.02.80 HOUSE FOOD IND CO D13 *GB 2070-217
 Prodn. of dry fruit chips as snack food - 64698D/36
- *HOWA/ 31.05.78 HOWARD A N D13 *GB 1596-879
 Dry compsns. for making savoury beverages - 64560D/36
- *HULE/ 07.02.80 HULETT D D16 *BR 8000-766
 Small alcohol distillery - D/36
- *HUSS/ 05.02.80 HUSSL D16 *WP 8102-308
 Microbiological treatment of organic material - 66060D/36
- *HWAS/ 14.12.79 HWA S C P D13 *US 4284-656
 Soya protein curd for use in foods - 65955D/36
- HYDR- 12.05.77 SOC CIV HYDROMER C03 D13 = GB 1597-048
 Mfr. of pet food partic. of meat based raw material - 05889C/04
- *IBSE/ 08.02.80 IBSEN R L A96 D21 *WP 8102-254
 Dental composite contg. hydrophobic submicron silica - 66040D/36
- ICIL 04.12.79 IMPERIAL CHEM INDS LTD D25 E34 (E19) = J5 6090-895
 Liq. detergent compsn. of low pour point - 44457D/25
- *INFL 20.10.78 INT FLAVORS & FRAGR INC B05 D13 E14 (D23) *US 4284-819
 6-Acetyl-5-methyl-butyl-1,1-di:methyl-indane and isomer - 66020D/36
- *INFL 26.10.79 INT FLAVORS & FRAGR INC D13 E15 *US 4284-654
 Augmenting aroma or taste of foodstuffs - 65953D/36

- *INFL 22.05.80 INT FLAVORS & FRAGR INC D13 E15 (D23) *US 4284-824
Methyl-substd.-norbornane-carboxaldehyde(s) - 66021D/36
- *INPR= 12.02.79 IND PRTC AUTTM RES D16 T06 *SU -787-467
Must fractionation and sulphur tri:oxide addn. control appts. - 65499D/36
- *INRG 21.01.80 INST NAT RECH AGRON B04 D16 (D13 D21 D22) *FR 2474-052
Collagenase produced by Flavobacterium spec. CRZV. 1 - 64500D/36
- INSF 20.12.79 INST FRANCAIS DU PETROLE A97 D15 H03 (D16) =DE 3047-520
Biodegradable dispersant compsns. for treating oil pollution - 47819D/27
- INSF 20.12.79 INST FRANCAIS DU PETROLE A97 D15 H03 (D16) =FR 2474-473
Biodegradable dispersant compsns. for treating oil pollution - 47819D/27
- INSP 28.11.79 INST PASTEUR B04 D16 =J5 6090-097
Thiolated B-lIb tetanus toxin polypeptide fragment - 46304D/26
- INTE- 18.10.79 INTEROX CHEM LTD D25 E12 =DK 8004-407
Magnesium mono:peroxy-di:carboxylate salts - 32939D/19
- INTT 03.05.76 INT TELEPH & TELEG CORP D13 =CA 1104-413
Lipoprotein emulsion prepn. - 83246Y/47
- ISHH 05.03.79 ISHIHARA SANGYO KK D15 E14 =EP --34-184
Bromine recovery from aniline cpd. prodn. effluent - 71561C/40
- IWAT/ 09.12.74 IWATA T D13 =J8 1034-265
Preserving hot taste of horse radish - 56997X/30
- JAAT 07.10.74 JAPAN ATOMIC ENERGY RES A88 D16 J01 (D15) =J8 1034-014
Polypropylene reinforced, high molecular composite membranes - 48519X/26
- JAOR 05.10.73 JAPAN ORGANO KK D15 =J5 0062-173
Organic sludge treatment - 65336D/36
- *JAOR 05.10.73 JAPAN ORGANO KK D15 *J8 1034-360
Organic sludge treatment - 65336D/36
- JEWEL/ 01.10.79 JEWELL W J D15 E17 H06 =US 4284-508
Biological prodn. of methane and carbon di:oxide - 31303D/18
- *JOAC/ 12.05.80 JOA C G D22 *US 4284-454
Attaching elastic strips to nappy sections - 65859D/36
- JOHJ 21.01.80 JOHNSON & JOHNSON A96 D21 (A11 A14) =BR 8100-320
Absorbent compsn. consisting of hydrocolloid - 55586D/31
- JOHM 14.09.77 JOHNS MANVILLE CORP D13 E33 (D23) =AT 7806-665
Coarse synthetic hydrous calcium silicate - 35797B/19
- *JOHN- 24.12.79 JOHNSON KK A97 D22 *J5 6089-262
Deodoriser compsn. for air - 64928D/36
- *JOHN- 18.01.80 JOHNSON CONSTRUCTIO D15 *SE 8000-430
Aerating water - D/36
- *JOHO 25.02.80 JOHNSON MATTHEY LTD A35 D23 *GB 2070-023
Hydrogenation of unsatd. cpds., esp. polymers - 64647D/36
- KALO- 28.01.80 KALOCSAI SUTO-ES D11 =FR 2474-280
Wheat bread of long storage stability prodn. - 42113D/24
- KALO- 28.01.80 KALOCSAI SUTO-ES ED D11 =NL 8100-405
Wheat bread of long storage stability prodn. - 42113D/24
- KANF 11.12.73 KANEGAFUCHI CHEM KK D15 J01 =J5 0089-275
Ultrafiltration membrane separator - 51906X/27
- KANF 11.12.73 KANEGAFUCHI CHEM KK D15 J01 =J8 1034-322
Ultrafiltration membrane separator - 51906X/27
- KANF 31.10.77 KANEGAFUCHI CHEM KK D15 J01 =J8 1034-130
Volatile material sepn. from aq. soln. using porous membrane - 49692B/27
- KAOS 28.11.77 KAO SOAP KK A97 D25 E17 (A14 A25 E14) =US 4284-533
Low viscosity aq. stable liq. cleansing compsn. - 42661B/23
- *KARN/ 05.12.79 KARN W S D15 J01 (J03) *US 4284-492
Combined reverse osmosis electrodialysis appts. - 65877D/36
- KAYC/ 11.02.80 KAY C D13 #WP 8102-241
Coffee product resembling fresh ground coffee - 14660C/08
- *KGOB= 23.03.78 KIRG OBTETRICS D13 *SU -789-096
Milk prod. for infants in weaning period - 65603D/36
- *KHBE= 10.07.78 KHARK BEER NON-ALCO D16 *SU -789-116
Agglutinating O-serum for beer-brewing microbiological control - 65620D/36
- *KHVO= 29.12.78 KHARK BR VODGEO D15 J01 *SU -789-409
Separator for multicomponent liquid mixts. - 65767D/36
- *KIAU= 14.02.79 KIEV AUTOM INST D16 *SU -787-455
Estimation of live cells in microbial biomass - 65494D/36
- *KIFO= 15.12.77 KIEV FOOD IND TECHN D16 *SU -789-102
Concentrating granular malt in alcohol prodn. - 65609D/36
- *KIFO= 26.03.79 KIEV FOOD IND TECHN D14 *SU -789-101
Pasteuriser for liquid products - 65608D/36
- KIKK 12.12.78 KIKKOMAN CORP D16 =J5 5081-580
Fermented fruit drink prepn. - 65326D/36
- *KIKK 12.12.78 KIKKOMAN CORP D16 *J8 1034-275
Fermented fruit drink prepn. - 65326D/36
- KIRS/ 03.11.76 KIRSCHMANN J D D15 =CA 1104-518
Small size water distillation appts. - 09816B/05
- *KISA= 29.01.79 KIEV SAKHAVTOMAT D17 X25 *SU -787-475
Controlled concn. of sugar massecuite - 65506D/36
- *KISU 12.09.78 KIEV SHEVCHENKO UNIV D15 *SU -789-424
Fish tank water filter - 65769D/36
- KITA/ 05.07.74 KITAHARA Y B05 D13 E15 (E14) =J8 1034-579
Novel acylated cyclohexane derivs - 17519X/10
- KITA/ 05.07.74 KITAHARA Y B05 D13 E15 (E14) =J8 1034-580
Novel acylated cyclohexene derivs - 17518X/10
- *KLAI= 02.03.78 KLAIPEDA IND FISH D12 *SU -789-064
Treatment of fish caught in seine - 65587D/36
- *KLAR- 29.04.77 KLARGESTER ENVIENG D15 *GB 1597-167
Septic tank vessel divided into three chambers - 64576D/36
- KLEI/ 15.02.80 KLEIN J A96 B04 D16 J04 =EP --34-293
Bio-catalyst beads prodn. by inclusion polymerisation - 62498D/35
- KNAU- 20.11.79 KNAUF FIBER GLASS G D15 L02 =DE 3043-759
Water treatment in fibre glass insulation mfg. plant - 50258D/28
- KNOL 10.04.76 KNOLL AG B04 D16 S03 S05 =AT 7900-313
Compsns. contg. fibrinogenase and soluble polysaccharide - 68820Y/39
- KOBM 05.03.75 KOBE STEEL KK D15 J01 =J5 1101-791
Osmotic separator device - 65329D/36
- *KOBM 05.03.75 KOBE STEEL KK D15 J01 *J8 1034-325
Osmotic separator device - 65329D/36
- *KRAF- 09.01.80 KRAF INC D13 *US 4284-657
Aq. based stable fluidised oleoresin compsns. - 65956D/36
- *KUBA= 05.02.79 KUBAN MED INST B04 D16 *SU -787-470
Identifying r-plasmid(s) in Escherichia coli strain - 65502D/36
- *KUBI 30.01.80 KUBOTA KK D15 *GB 2069-858
Belt pressure filter for sludge dewatering - 64597D/36
- *KUHL/ 28.01.80 KUHLMANN M D11 *DD -148-713
Multideck baking oven charging device - 64228D/36
- KURK 15.07.76 KURITA WATER IND KK D15 E36 =J8 1033-999
Treating fluorine- and boron-contg. aq. effluent - 20224A/11
- *LAKE= 07.08.78 LAKE RIVER FISHING D12 *SU -789-066
Cultivation of krill species - 65588D/36
- *LEAT= 08.09.78 LEATHER FOOTWEAR IN D18 E17 *SU -777-064
Compsn. for emulsion-oiling of leather - 65415D/36
- *LEEN= 20.11.78 LENG D ENG CONS INST D15 X25 *SU -789-407
Electro:coagulator for organic impurities in liquid effluent - 65765D/36
- *LEFI- 21.02.80 LEFIELL CO D12 X25 *GB 2069-815
Electrical stimulation bar for animal carcass - 64587D/36
- *LENI 20.11.78 LENINGRAD LENSOFET TECH D15 X25 *SU -789-407
Electro:coagulator for organic impurities in liquid effluent - 65765D/36
- *LESI 23.04.81 LESIEUR COTELLE SA A97 D25 E19 *BE -888-535
Conc. textile softening compsn. contg. cationic softener - 64215D/36
- *LESY= 19.07.78 LENG D SYNTH DETERGE D25 T06 *SU -787-454
Synthetic washing powder free-flow density control appts. - 65493D/36
- *LIBU= 14.04.78 LITH BUTTER CHEESE C03 D13 *SU -789-090
Substitute for plain milk for young farm animals - 65597D/36
- *LIBU= 21.08.78 LITH BUTTER CHEESE D13 *SU -789-088
Accelerated prepn. of soured milk products - 65595D/36
- LIFE- 10.12.79 LIFE-SAVERS INC D13 =DE 3046-518
Chewing gum changing from hard to soft texture on standing - 45924D/25
- *LIFO= 16.10.78 LITH MIN FOOD IND D11 *SU -789-355
Inter-conveyor baked products transferrer - 65757D/36
- LING- 22.09.79 LINGNER & FISCHER D21 E17 =J5 6090-007
Cleaning and skin care compsn. - 23668D/14
- LOOC/ 28.07.72 LOO C S D13 =J8 1034-256
Soybean beverage - 47851V/26
- *LOTT 20.12.79 LOTTE KK D13 (D16 D21) *J5 6088-758
Dextranase contg. chewing gum prepn. - 64850D/36
- MAGG/ 25.01.80 MAGGESIL A96 D21 =BR 8100-384
Shaving compsn. contg. cationic ammonium cpd. or polymer - 62687D/35
- MARU- 10.12.79 MARUCHI KOKEN KK D15 J01 =DE 3046-278
Oil sepn. from water - 62978D/35
- *MATU 18.12.79 MATSUSHITA ELEC IND KK A96 B04 D16 *J5 6088-796
Fixing enzyme to membrane by immersing membrane in enzyme soln. - 64857D/36
- *MATU 19.12.79 MATSUSHITA ELEC IND KK A96 B04 D16 *J5 6088-794
Enzyme crosslinking and fixation - 64856D/36
- *MAUG- 18.01.80 ETAB MAUGUIN D15 E17 *FR 2473-836
Continuous digester to produce methane etc. from manure - 64469D/36
- MEDL- 04.05.79 MEDLINE AB A96 D22 =BR 8008-861
Device for closing body passages, esp. for use as contraceptive - 90094C/50
- MEDX 26.02.80 MEADOX MEDICALS INC A96 D22 F01 (A23 A35) #GB 2070-088
Ligament or tendon prosthesis - 51457C/29
- *MEIJ 17.12.79 MEIJI SEIKA KAISHA B03 D16 *J5 6088-800
Ribostamycin effective against Gram positive and negative bacteria - 64860D/36
- MEIJ 24.12.79 MEIJI SEIKA KAISHA B03 D16 =J5 6090-099
SF-2080A substance of apparent pyrrole structure - 52156D/29
- *MERI 19.02.80 MERCK & CO INC B04 D16 *EP --34-543
Solubilising Gonococcus antigen by trypsin digestion - 64453D/36
- MESP/ 01.02.80 MESPLE J L R D15 =BR 8100-420
Prodn. of drinking water by reverse osmosis desalination - 40238D/23

- MIFI 16.12.76 MILLIPORE CORP B04 D16 J04 S03 (S05) =GB 1597-345
Detection of the presence of a component of an immunochemical reaction - 46142A/26
- * MILC- 16.02.80 MILCHWERKE REGENSBÜ D11 *DE 3005-866
Ready-to-bake curd mixt. for cheese-cake prepn. - 64273D/36
- * MIMB 30.05.78 MILK MARKETING BOARD D13 *GB 1597-068
Prodn. of cultured butter from sweet butter - 64565D/36
- * MIME= 14.08.78 MINSK MEAT IND PROD C03 D13 *SU -789-091
Substitute for plain milk for young farm animals - 65598D/36
- * MIRY/ 22.09.76 MIRYASHEV B N D13 *SU -789-094
Rendered animal oil prodn. - 65601D/36
- * MISK 22.12.79 MITSUBISHI KAKOKI KAISHA D15 J01 *J5 6089-814
Rotary drum type filter for liq. filtration - 65030D/36
- MITG 03.12.73 MITSUI MINING & SMELTING D15 J01 M25 = J8 1034-357
Mercury removal from waste water - 89347X/48
- MITG 03.12.73 MITSUI MINING & SMELTING D15 J01 M25 = J8 1034-358
Mercury removal from waste water - 89348X/48
- MITN 15.07.76 MITSUBISHI GAS CHEM IND D13 E36 J01 = J8 1033-980
Oxygen absorbent used for treating atmos. contg. steam - 22672A/12
- MITN 11.11.76 MITSUBISHI GAS CHEM IND A97 D15 E19 J01 (E37 J03 X25) = J8 1034-330
Cleaning a non-electrically charged membrane - 48833A/27
- MITN 26.08.77 MITSUBISHI GAS CHEM IND D13 E36 G04 = J8 1034-147
Oxygen adsorbent used in food containers etc. - 32443B/17
- * MITN 15.02.80 MITSUBISHI GAS CHEM IND D12 *EP --34-489
Storing processed fish and roe - 64434D/36
- MITO 16.01.76 MITSUBISHI HEAVY IND KK D15 E31 = J8 1033-997
Removing heavy metal ions from waste water - 63573Y/36
- MITR 17.02.77 MITSUBISHI RAYON KK A97 D15 =GB 1597-035
Oil-adsorbent for purifying oil-contg. water - 62150A/35
- MNKN 19.05.73 MINAMI NIPPON RAKUNO KYO D13 (D16) = J5 0005-558
Powdered fermented milk prepn. - 65325D/36
- * MNKN 19.05.73 MINAMI NIPPON RAKUNO KYO D13 (D16) *J8 1034-255
Powdered fermented milk prepn. - 65325D/36
- MOCH/ 08.12.76 MOCHIZUKI D15 J01 = J5 3072-367
Liq. filter - 65308D/36
- * MOCH/ 08.12.76 MOCHIZUKI D15 J01 *J8 1033-971
Liq. filter - 65308D/36
- MOCH/ 24.08.78 MOCHIZUKI H D15 J01 = J8 1034-122
Appts. for washing filter elements used in water treatment - 26321C/15
- * MODR/ 13.02.80 MODROVICH IE B04 D16 *EP --34-213
Stabilised aq. coenzyme solns. - 64352D/36
- * MOFO= 02.02.79 MOSC FOOD IND TECHN A97 D17 *SU -787-474
Purificn. of sugar soln. - 65505D/36
- * MOGI= 16.03.79 MOGIL TECHN INST D13 *SU -789-087
Equipment for heat treatment of cream during butter prodn. - 65594D/36
- * MOGP= 02.11.78 MOSC EPIDEM CARDIOL B04 D16 *SU -789-114
Prepn. of surface soluble antigen of intestinal microbe - 65618D/36
- * MOMA= 12.02.79 MOSC MAGARACH WINE D16 *SU -787-465
Continuous prodn. of fruit wine - 65498D/36
- * MOMD 04.10.78 MOSCOW MEAT DAIRY INST D13 *SU -789-099
Heat treatment equipment for child food prodn. - 65606D/36
- * MOMD 21.11.78 MOSCOW MEAT DAIRY INST D14 S03 X25 *SU -787-987
Foodstuffs automatic mixing control monitor - 65559D/36
- * MOMD 09.02.79 MOSCOW MEAT DAIRY INST D12 S03 *SU -787-988
Meat sliding friction determ. - 65560D/36
- * MOMD 21.03.79 MOSCOW MEAT DAIRY INST D12 *SU -789-085
Cutter for frozen blocks of meat - 65593D/36
- * MOMO= 04.09.78 MOSC MOLOKO PROD D13 *SU -789-092
Protein-enriched soured cream mfr. - 65599D/36
- * MONO- 25.02.80 MONO OAKES LTD D13 *GB 2070-202
Discharge valve for aerated prod. esp. chocolate - 64695D/36
- * MORI- 24.12.79 MORISHITA JINTAN KK D13 J04 *J5 6089-833
Mfr. of gelatin capsule contg. hydrophilic nucleus material - 65048D/36
- * MORU= 13.09.78 MOSC RURAL CONS RES D15 J03 X25 *SU -789-405
Electrochemical unit for ion-exchanger regeneration soln. purificn. - 65764D/36
- * MOSK 27.07.77 MOSCOW CHEM EQUIP INST D15 J02 *SU -789-147
Acoustic oscillator for liquids - 65648D/36
- * MOSU 26.05.78 MOSC LOMONO SOV UNIV B04 D16 *SU -787-463
Prodn. of fungal thrombus dissolving enzyme - 65496D/36
- * MOSU 28.06.78 MOSCOW LOMONOSOV UNIV D16 S03 *SU -787-993
Microorganisms colony growth recorder - 65565D/36
- * MOSU 29.12.78 MOSCOW LOMONOSOV UNIV D16 *SU -787-471
Nutrient medium for nisin biosynthesis - 65503D/36
- * MOTE= 15.08.78 MOSC TEXTILE INST A25 D22 F08 (A60) *SU -787-438
Compsn. for impregnating fibrous materials - 65481D/36
- MRSC 09.03.77 MARS LTD D13 (D12) =CA 1104-408
Textured food product similar to meat in structure - 65287A/37
- NAAR 03.12.79 NAARDEN INT BV D13 = J5 6088-784
Turbidity-resistant alcohol-free citrus juice beverage prepn. - 46202D/26
- NAGA 19.12.79 VEB KOMBINAT NAGEMA D13 =DE 3044-655
Chocolate paste spraying plant - 55177D/31
- NATT 05.05.78 NAT STARCH & CHEM CORP A96 D21 (A13 A14) =GB 1597-289
Aerosol hair spray compsns. - 82835B/46
- NEST 10.02.71 SOC PROD NESTLE SA D13 = J8 1034-254
Acidified powdered milk - 54471T/34
- NEST 17.10.72 NESTLE'S PROD LTD D13 = J4 9074-173
Instant drink powder agglomeration - 31085V/17
- NEST 17.10.72 NESTLES PROD LTD D13 = J8 1034-337
Instant drink powder agglomeration - 31085V/17
- NEST 15.02.80 SOC PROD NESTLE SA D14 =EP --34-291
Batch heat treatment of particulate solids - 62824D/35
- * NICA 25.12.79 NIPPON CARBIDE KOGY KK A96 D21 *J5 6090-006
Hair cosmetic compsn. - 65093D/36
- * NICH- 24.12.79 NIPPON CHEMTECH CON A31 D17 J01 *J5 6089-815
Sepg. liq. from solids contg. liq. - 65031D/36
- * NIDE 20.12.79 NIPPON ELECTRIC KK D15 *J5 6089-893
Decomposition of organic matter in waste water - 65066D/36
- NIKK- 19.03.73 NIKKISO KK D15 J01 = J4 9119-869
Appts. for sepg. solvent from gas - 65331D/36
- * NIKK- 19.03.73 NIKKISO KK D15 J01 *J8 1034-334
Appts. for sepg. solvent from gas - 65331D/36
- * NIPC 27.08.79 NIPPON CHEM IND KK D15 L02 *J5 6033-081
Treating effluent from grouting process - 64721D/36
- NIPK 06.09.74 NIPPON KAYAKU KK D12 = J8 1034-253
Colouring salt-processed meat - 33113X/18
- NIPK 27.09.74 NIPPON KAYAKU KK D12 = J8 1034-268
Improving the taste and smell of sea-foods - 37019X/20
- * NIRA- 25.12.79 NIPPON RASCAT KK D25 E34 *J5 6090-898
Detergent compsn. for cleaning metal bath tubs - 65229D/36
- NISC 05.07.78 NISSAN CHEM IND KK A26 D16 J01 (A97) = J8 1034-219
Mfr. of crosslinked water-absorbing resin - 15788C/09
- NISC 05.03.79 NISSAN CHEM INDS LTD D15 E14 =EP --34-184
Bromine recovery from aniline cpd. prodn. effluent - 71561C/40
- NISS 22.01.80 NISSHIN FLOUR MILL KK D11 E13 (E16) =NL 8005-406
Improving agent for bread contg. no oxidising agent - 55582D/31
- * NISU- 13.01.79 NIPPON SUISAN KK D12 *US 4284-653
Treating fish infected with sporozoa - 65952D/36
- NISW 15.06.79 NISSHIN OIL MILLS KK D13 = J8 1034-261
Soy bean protein extn. - 17850D/11
- NITL 22.04.77 NITTO ELECTRIC IND KK D15 J01 = J8 1033-964
Sealing a joint in a porous support pipe - 00661B/01
- NITL 28.11.78 NITTO ELECTRIC IND KK A96 B04 D22 = J8 1034-203
Antibacterial material - 50711C/29
- NITL 28.03.79 NITTO ELECTRIC IND KK D15 E37 = J8 1034-133
Washing process for selectively permeable membrane - 83290C/47
- NITL 29.06.79 NITTO ELECTRIC IND KK D15 J01 = J8 1034-135
Washing ball circulator in tubular membrane separator - 20135D/12
- NITL 20.08.79 NITTO ELECTRIC IND KK D15 J01 = J8 1034-136
Cylindrical membrane sepn. module - 35265D/20
- NITT 30.11.79 NITTO CHEM IND KK A14 D15 F09 (A97) =DE 3045-019
Modification of acrylamide polymers by hydrolysis - 44640D/25
- * NKWA= 11.10.78 NOVOK WATER SUPPLY D15 *SU -789-438
Liquid effluent sludge dryer - 65772D/36
- NMHB 18.01.80 NORDISCH MASCH R BAADER D12 #DD -148-714
Flat-fish bleeding and gutting - 45179C/26
- * NNSH 18.12.79 NIPPON SHINYAKU KK D12 *J5 6088-742
Pasty meat food prodn. - 64847D/36
- NORD 16.10.79 NORDEN LAB INC B04 C03 D16 =DK 8004-379
Live feline infectious peritonitis virus vaccine - 31178D/18
- * NREN 21.12.79 NIPPON RENSUI KK D15 L03 *J5 6089-894
Water used for washing electronic components purificn. - 65067D/36
- * NURS/ 27.02.80 NURSE W A D17 *GB 2069-869
Three roller extraction mill - 64601D/36
- * ODRI 26.09.78 ODESSA REFRIG IND TECHN D15 J01 *SU -789-398
Heat treatment set for solutions - 65761D/36
- OHTA/ 03.09.77 OHTA J A88 D15 J01 = J8 1034-140
Membrane sepn. appts. for treating waste liq. - 34420B/18
- OKAZ/ 19.02.76 OKAZKI T D15 J03 = J8 1034-341
Electrolytic cell with water tank sectioned into cells - 71633Y/40
- OLOF/ 30.11.79 OLOFSSON A D22 =DE 3044-038
Sterilising hollow knife for draining blood from cows etc. - 25432D/15
- OMUK- 10.06.72 OMUKO KK D15 = J4 9017-042
Prodn. appts. for high alkali concn. potable water - 65333D/36
- * OMUK- 10.06.72 OMUKO KK D15 *J8 1034-340
Prodn. appts. for high alkali concn. potable water - 65333D/36
- OREA 21.04.77 L'OREAL SA A14 D21 (A96) =GB 1596-875
Methacrylate based copolymers - 76295A/43
- OREA 10.05.77 L'OREAL SA D21 E23 =GB 1596-956
Colourant soln. for hair dyeing compsn. prepn. - 82087A/46
- OREA 25.01.80 L'OREAL SA D21 E17 =FR 2474-310
Oil solns. of essential fatty acids - 56976D/32
- OREA 25.01.80 L'OREAL SA D21 E17 =GB 2069-838
Oil solns. of essential fatty acids - 56976D/32

OREA

- OREA 25.01.80 L'OREAL SA D21 E17 = NL 8100-331
Oil solns. of essential fatty acids - 56976D/32
- OREA 29.01.80 L'OREAL SA D21 E14 = FR 2474-490
Hair dyeing compsns. contg. p-phenylene di:amine and o-amino phenol - 29454D/17
- ORTH 13.07.79 ORTHO DIAGNOSTICS B04 D16 S03 T05 (S05) = US 4284-412
Automatic counting of specific lymphocyte types - 06232D/05
- OSAG 21.06.75 OSAKA GAS KK D15 H09 J01 = J8 1033-998
Removing toxic material from coke oven gas liquor - 11871Y/07
- *OSAN- 19.12.79 OSAKA NIGARI SHOKO D13 E33 *J5 6088-772
Prepn. of bean milk curd - 64854D/36
- *OTTI- 25.02.80 IND OTTICHE RIUNITE D22 *GB 2069-840
Sterilisation of contact lenses - 64590D/36
- *PACI= 19.02.79 PACIFIC OCEAN FISH D12 S03 *SU -787-990
Device for determining moment of inertia of suspended fish - 65562D/36
- PAMF= 19.12.79 PAMFILOV COMM WATER D15 #DE 2951-173
Floating decanter with tubular risers to clarify river water etc. - 62694D/35
- *PART- 23.02.80 PARTECH ELTRNS LTD D15 S03 *GB 2070-238
Monitoring solids content of conc. liq. sludge - 64701D/36
- PASE 01.08.77 PASSAVANTW MICHELbacher D15 = GB 1596-945
Sewage aerator cowl - 12204B/07
- PENT- 12.02.80 PENTAPHARM AG B04 D16 = WP 8102-294
Tri:peptide derivs. for determination of enzymes in blood - 62686D/35
- PERM- 30.01.80 PERMA D21 = FR 2474-311
Two-pack hair bleaching compsns. - 60792D/34
- PERS 23.05.77 PERSONAL PRODUCTS CO A96 D22 = AT 7803-698
Sanitary pad contg. perfume avoiding perfume migration - 86106A/48
- PERS 21.01.80 PERSONAL PRODUCTS CO A96 D21 (A11 A14) = NL 8100-284
Absorbent compsn. consisting of hydrocolloid - 55586D/31
- PETE- 19.10.79 PETER G KG D12 = DK 8004-346
Sausage skin package inside wrapper insection - 32887D/19
- *PETE/ 22.01.80 PETERS W E U A88 D15 *NL 8000-395
Swimming pool chlorinator injector - 65357D/36
- PEUS/ 29.01.79 PEUSER M F X D15 J01 M11 = DD -148-795
Effluent treatment of electroplating baths - 43314C/25
- *POKK 24.12.79 POLA KASEI KOGYO B07 D13 J02 (D21) *J5 6089-832
Oil in water type emulsion prodn. - 65047D/36
- POLA 09.10.79 PFW NEDERLAND BV D23 E15 (D13) = J5 6090-021
Oxo-tri:cycloundecane cpds. and functional derivs. - 40559D/23
- *POND= 23.03.79 POND FISHING RES C03 D13 *SU -789-077
Peat-base food for fish prepn. - 65591D/36
- PROC 01.07.76 PROCTER & GAMBLE CO D25 E19 = CA 1104-582
Heat exchanger cooling of neutralised sulphonation mixts. - 02053A/02
- PROC 31.03.77 PROCTER & GAMBLE CO D13 = CA 1104-411
Decaffeinated coffee obtd. by solvent extraction - 72688A/41
- PROC 28.02.78 PROCTER & GAMBLE CO D25 E19 = CA 1104-451
Detergent bleach compsn. effective under dark conditions - 64996B/36
- PROC 11.10.79 PROCTER & GAMBLE CO A97 D25 E17 (E14) = US 4284-532
Isotropic liquid laundry detergent compsns. - 34773D/20
- *PROC 02.01.80 PROCTER & GAMBLE CO D23 E17 *US 4284-580
Fractionation of tri:glyceride mixts. - 65922D/36
- *PROC 07.02.80 PROCTER & GAMBLE CO D21 E12 *EP --34-385
Heavy metal salts of 1-hydroxy-2-pyridine:thione - 64396D/36
- PROC 14.02.80 PROCTER & GAMBLE CO A97 D25 E19 (E16) = EP --34-387
Liq. mulls contg. dispersed solid phase - 36137D/20
- PROC 19.02.80 PROCTER & GAMBLE CO D25 = EP --34-393
Liq. dishwashing detergent compsn. - 41968D/23
- *PROC 30.06.80 PROCTER & GAMBLE CO A97 D25 E19 (E34) *US 4284-524
Automatic dishwashing detergent compsn. - 65895D/36
- *PROC- 03.12.79 PROCESS ENG CO SA D16 *SE 8007-594
Alcohol prodn. from mash containing sugar - 65369D/36
- *PROT= 05.02.79 PROTEIN BIOSYNTHESI D17 *SU -787-477
Purificn. of fibrous waste vegetable matter - 65508D/36
- *QUAD- 11.07.77 QUAD ENVIRONMENT D14 J01 M24 *US 4284-609
Condensn. cleaning of particulate laden gases - 65935D/36
- *QUAK 24.01.77 QUAKER OATS CO C03 D13 *US 4284-652
Soft, dry pet food contg. non-functional protein and matrix - 65951D/36
- QUAK 19.10.79 QUAKER OATS CO C03 D13 = DK 8004-143
Domestic animal food packaged in closed bags - 27240D/16
- RAAT/ 25.01.80 RAATZ G J D13 = NL 8000-484
Onion peeler - 59006D/33
- RALS 21.01.80 RALSTON PURINA CO C03 D13 = FR 2473-850
Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
- RALS 21.01.80 RALSTON PURINA CO C03 D13 = NL 8100-114
Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
- *RAPO/ 19.02.80 RAPOLLA T D14 *US 4284-359
Agglomerating dry edible particles in steam jets - 65829D/36
- *RAYJ/ 02.04.80 RAY J P D18 E13 *US 4284-089
Simulated smoking device - 65805D/36
- *REFR= 16.03.79 REFRIG IND RES D13 *SU -789-098
Molten cheese prodn. - 65605D/36
- *REGI- 23.04.81 REGION WALLONNE D16 E17 *BE -888-532
Prodn. of methane by anaerobic digestion of biodegradable liquid - 64214D/36
- *RESE 26.04.78 RESEARCH CORP B04 D16 *US 4284-552
Coenzyme/A synthesising protein complex - 65911D/36
- RETI- 20.08.79 RETINA FOUNDATION A96 D22 (A14) = EP --34-174
Hydrogel implant of crosslinked acrylate copolymer - 21414D/12
- RHON 29.01.80 RHONE-POULENC AGROC A97 C01 D16 = FR 2474-278
Phosalone insecticide compsn. contg. thickener and surfactant - 59059D/33
- *RIAT- 18.02.80 RIAT SARL D18 *EP --34-369
Perforated drum contg. skins for soaking in liq. - 64388D/36
- RIEG 16.10.79 RIEGEL TEXTILE CORP D22 = DK 8001-446
Elasticated leg sections in diapers - 32363D/18
- *RIME= 08.01.79 RIGA MED INST B04 C03 D16 S03 *SU -787-994
Human T and B lymphocyte differentiation - 65566D/36
- *RIME= 08.01.79 RIGA MED INST B04 C03 D16 S03 *SU -787-995
Human T and B lymphocyte differentiation - 65567D/36
- ROHM 07.04.77 ROHM & HAAS CO A91 D15 E31 = GB 1597-283
Selective removal of iron cyanide complex anions from aq. effluent - 70586A/39
- ROHM 31.05.77 ROHM & HAAS CO D15 = GB 1596-913
Deionisation of water streams contg. monovalent and divalent cations - 91658A/51
- ROUS 25.01.80 ROUSSEL UCLAF B05 C03 D13 (D21 D23 D24 D25) = BR 8100-400
Cyclopropane-carboxylic acid insecticides, acaricides, perfumes etc. - 59044D/33
- ROUS 25.01.80 ROUSSEL UCLAF B05 C03 D13 (D21 D23 D24 D25) = FR 2474-488
Cyclopropane-carboxylic acid insecticides, acaricides, perfumes etc. - 59044D/33
- *RUHN/ 00.00.76 RUHNKES D15 *DE 3004-682
Domestic and industrial sludge disposal - 64268D/36
- *SAEL/ 21.04.80 SAELENS B D13 *BE -888-494
Food compsns. based on minced meat opt. with cheese - 64206D/36
- SAFI- 14.09.78 SAFINCO IZEGEM D23 = US 4284-578
Direct transesterification of tri:glyceride oils - 06121B/04
- SAGA 03.04.79 SAGAMI CHEM RES CENTRE B05 D16 = US 4284-721
Di:peptide prodn. in presence of immobilised protease - 73469C/42
- SAIN/ 19.11.76 SAINT-FIRMIN A R B04 C03 D16 = GB 1597-109
In vitro tumour and embryo formation in plant seedlings - 03485D/03
- SANM- 26.05.77 SANMATSU KOGYO CO B04 D17 E13 J01 (D15 E17 S03) = GB 1596-911
Columnar chromatographic separation - 91666A/51
- *SANN 21.12.79 SANYO CHEM IND LTD A18 D22 F04 (A96) *J5 6089-839
Water absorbent material, e.g. for tampons, nappies and surgical pads - 65054D/36
- SANO 24.01.80 SANDOZ SA A97 D25 E19 = FR 2474-526
Biodegradable detergent compsns. - 59212D/33
- SANY 03.10.74 SANKYO KK D12 (D16) = J8 1034-269
Preventing discolouration of canned shell fish - 38932X/21
- *SANY 20.12.79 SANKYO KK D13 (D16 D21) *J5 6088-758
Dextranase contg. chewing gum prepn. - 64850D/36
- *SATR= 10.04.78 SARAT TRAUMAT ORTHO D22 *SU -789-084
Soln. for preserving human brain outer membrane for transplantation - 65592D/36
- SCHD 12.01.79 SCHERING AG B01 D16 = US 4284-720
19-Hydroxy-androstane or pregnane steroid prepn. - 53767C/31
- SCHE 17.01.80 SCHERING CORP B02 D16 = NO 8100-114
Kijanimicin from Actinomadura kijaniata ATCC 31588 - 62579D/35
- SCHE/ 16.03.76 SCHEICHER H D21 L02 = FR 2474-480
Prostheses for dental and other applications - 48865Y/28
- *SCHM/ 19.01.78 SCHMITZBERGER J D13 *AT 7800-369
Dried stone- or pips-contg. fruit based food prod. mfr. - D/36
- *SCHR/ 07.05.79 SCHRIMPFF P D22 *AT 7903-375
Excitation device for oxygen molecules in air - D/36
- *SCMZ 22.04.80 SCM CORP D13 *US 4284-655
Low fat spread comparable to margarine - 65954D/36
- SEIS 11.09.78 SEISAN KAIHATSU KAGAKU B05 D16 = J8 1034-278
Ubiquinone Q10 prodn. - 31913C/18
- SETO- 21.01.80 SETON CO A11 C03 D13 (A97) = FR 2474-036
Pure oligopeptide(s) prepn. from collagen - 55639D/31
- SEYM- 22.01.80 SEYMOUR FOODS INC D13 = FR 2473-869
Egg breaking and contents separating machine - 55584D/31
- SHEL 06.02.80 SHELL INT RES MIJ BV A97 C03 D15 (A11 D13) #EP --34-222
Removal of protein from waste water - 11468C/07
- SHER- 27.06.79 SHEREX CHEM CO INC D25 E16 (E14) = EP --34-149
Foam stabiliser for foam contg. alkyl benzene sulphonate(s) - 86394C/49

- *SHIA 25.12.79 SHINKO KAGAKU KOGYO A18 D22 F09 (A96) *J5 6089-838
Water-absorbing material e.g. for paper towel - 65053D/36
- *SHIF 24.12.79 SHINMEIWA IND KK D15 J01 *J5 6089-812
Water filtration appts. - 65028D/36
- *SHIG/ 13.01.79 SHIGEOKA D12 *US 4284-653
Treating fish infected with sporozoa - 65952D/36
- SHIG/ 18.12.79 SHIGEOKA D12 = J5 6088-779
Treating fish infected with sporozoa - 65952D/36
- *SHIM- 21.12.79 SHIMIDZU SHOKUHIN D13 *J5 6088-750
Treating Japanese radish using hot acetic acid - 64848D/36
- *SHIM/ 24.12.79 SHIMURA S D15 J02 *J5 6089-826
Water tank stirrer - 65042D/36
- SHOW 17.06.72 SHOWA DENKO KK B02 D16 = J8 1034-279
L-tryptophan prodn. - 49257V/27
- SIMO- 01.12.79 SIMON-ROSEOWNS LTD D23 = DE 3044-726
Expansion of oil bearing seed - 44652D/25
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 = FR 2474-017
sludge thickening appts. - 60887D/34
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 = NL 8100-223
sludge thickening appts. - 60887D/34
- *SODA- 21.12.79 SODA KORYO KK D23 E13 (D13 D21) *J5 6090-076
Perfume component unsaturated macrocyclic lactone - 65132D/36
- *SOEP/ 05.02.80 SOE-PEDERSEN A D14 *WP 8102-238
Regulation of feedstuff pellet press - 66037D/36
- *SORI- 05.02.80 SORIGONA AB D16 *WP 8102-308
Microbiological treatment of organic material - 66060D/36
- *SORI- 13.02.80 SORIN BIOMEDICA SPA B04 D16 *EP --34-304
Immobilisation of enzyme inside dialyser hollow fibres - 64372D/36
- SPEC- 14.05.76 SPECIAL FOODS CORP D11 = CA 1104-412
Alimentary paste and pastry prepn. using soya - 83190Y/47
- STAB- 29.12.78 STABLEX AG D15 M11 = US 4284-514
Chemical pretreatment of hazardous waste in containers - 57267C/33
- STAH/ 27.03.79 STAHLER T D15 = US 4284-503
Sewage aeration basin - 86444C/49
- *STAM 17.01.80 STAMICARBON BV D15 *NL 8000-300
Biological purificn. of waste water contg. nitrogen cpds. - 65355D/36
- STAM 22.01.80 STAMICARBON BV D17 E13 = FR 2474-053
Fructose prodn. from chicory roots - 56963D/32
- STAM 22.01.80 STAMICARBON BV D17 E13 = NL 8000-380
Fructose prodn. from chicory roots - 56963D/32
- *STAU 10.12.79 STAUFFER CHEMICAL CO D15 E36 *US 4284-515
Elemental phosphorus redn. in aq. media - 65887D/36
- *STOL- 22.04.80 GEBR STOLLE CO GMBH D12 *BE -888-504
Machine to insert sachet of giblets into drawn chicken - 64210D/36
- *STOR- 03.12.79 STORK GAMCO D12 *US 4283-813
Inspecting shackled eviscerated poultry carcasses - 65785D/36
- SUDC 15.06.77 SUD-CHEMIE AG D15 E33 = EP G000-130
Silicate adsorber suitable for treating hard water - 00188B/01
- *SUGA= 29.01.79 SUGAR IND RES INST D17 X25 *SU -787-475
Controlled concn. of sugar massecuite - 65506D/36
- *SUGA= 16.04.79 SUGAR IND RES INST D15 X25 *SU -789-408
Electrolytic cleaner for effluent - 65766D/36
- SUME 09.06.73 SUMITOMO ELEC IND KK D15 J01 = J5 0018-360
Electrolyte soln. ion dialyser - 65330D/36
- *SUME 09.06.73 SUMITOMO ELEC IND KK D15 J01 *J8 1034-333
Electrolyte soln. ion dialyser - 65330D/36
- SUMO 30.03.78 SUMITOMO CHEMICAL KK D23 E14 = US 4284-818
1,1,3,4,4,6-Hexa:methyl-1,2,3,4-tetra:hydro naphthalene prepn. - 75544B/42
- *SUMO 20.12.79 SUMITOMO CHEMICAL KK A14 D15 F09 *J5 6088-407
High molecular wt. water-soluble polymer prodn. - 64775D/36
- SUMO 21.12.79 SUMITOMO CHEMICAL KK B05 C03 D23 E14 = J5 6090-031
High yield prepn. of 3,4-di:subst.-benzaldehyde(s) - 50108D/28
- *SUMO 08.02.80 SUMITOMO CHEMICAL KK B05 C03 D23 E14 *EP --34-430
Aryl-acetaldehyde prodn. from arylmethyl halide - 64413D/36
- SUTT 28.08.79 SUTTON LABORATORIES INC B03 C02 D22 E13 = EP --34-182
1,3-Bis-hydroxymethyl-1-substd.-imidazolidinyl-urea - 21410D/12
- SVEN/ 12.02.80 SVENDSEN LG B04 D16 = WP 8102-294
Tri:peptide derivs. for determination of enzymes in blood - 62686D/35
- SYNT 26.07.79 SYVA CO B04 D16 S03 = GB 2070-243
Immunoassay system including a polyionic charged species - 13671D/08
- SYST- 23.01.80 SYSTEMATE BV D12 = BR 8100-339
Poultry jointing appts. - 59005D/33
- SYST- 23.01.80 SYSTEMATE BV D12 = NL 8000-424
Poultry jointing appts. - 59005D/33
- *TAIN/ 16.01.80 TAINSH J A R D14 *GB 2069-806
Appts. usable as thrasher or decorticator - 64584D/36
- *TAKE 24.12.79 TAKEDA CHEMICAL IND KK C03 D22 F06 G02 (F09) *J5 6090-002
Industrial fungicide compsn. - 65090D/36
- *TAKE 25.02.80 TAKEDA YAKUHIN KOGY A81 D15 J01 *GB 2070-032
Adsorbent material is thermoset resin contg. hydrated ferrite - 64652D/36
- *TAKG 20.12.79 TAKI KAGAKU KK A88 D15 *J5 6089-900
Agent for dewatering sludge - 65069D/36
- *TANK- 21.12.79 TANKO TEKKO KK A18 D22 F04 (A96) *J5 6089-839
Water absorbent material, e.g. for tampons, nappies and surgical pads - 65054D/36
- TAPR- 16.12.78 TAPROGGEREINIGUN D15 = J8 1034-141
Reverse osmosis desalination plant - 50417C/29
- *TATL 26.02.80 TATE & LYLE LTD D16 (D17) *GB 2070-022
Immobilised enzymes in gel layers on inert support - 64646D/36
- *TATL 27.02.80 TATE & LYLE LTD D17 E13 *GB 2070-015
Prodn. of microcrystalline glucose rich in beta form - 64642D/36
- *TAVE/ 23.01.80 TAVERNIER A D13 *FR 2473-849
Preserving truffles by deep freezing - 64473D/36
- *TEAI= 22.08.78 TEA INDEQUIP LAB D13 *SU -776-590
Grading twisted tea leaves - 65404D/36
- TENT/ 22.02.80 TENTA LT B06 D21 E34 (E33) = GB 2069-837
Chewing gum compsn. - 38049D/21
- *THAL 16.01.80 VEB SCHWERMASCH THALMANN D14 J08 *DE 3045-134
Jet film dryer for sticky material - 64336D/36
- THEU/ 02.11.79 THEURER K D22 = J5 6088-797
Sterilisation of biological materials e.g. organ tissues - 34615D/20
- *THOM/ 22.02.80 THOMA H A B04 C03 D16 S03 *DE 3006-709
Homogeneous enzyme-mediated assay of ligands e.g. hormones - 64326D/36
- *THOM/ 22.02.80 THOMA H A B04 D16 *DE 3006-710
Enzyme modulator-ligand complexes - 64327D/36
- TKRD- 20.10.79 TKR DRITTE TABAK FO D18 E16 = DK 8004-318
Tobacco additive for reducing amt. of harmful substances in smoke - 30816D/18
- *TORA 21.12.79 TORAY IND INC D23 E13 (D13 D21) *J5 6090-076
Perfume component unsaturated macrocyclic lactone - 65132D/36
- *TORN 21.12.79 TORAY ENG KK D15 L03 *J5 6089-894
Water used for washing electronic components purificn. - 65067D/36
- TOSH 08.06.78 TOSHIBA PHARM KK C03 D13 = J8 1034-263
Mfg. stable solid table salt prepn. for livestock - 08510C/05
- TOWA- 28.04.78 TOWA MOKUZAI KK C03 D22 E19 F09 (E36) = J8 1034-441
Insect control in wood - 91632B/51
- *TOWN= 03.11.78 TOWN DWELL PUB BLDS D15 *SU -789-423
Effluent cleaner for natural aeration ponds - 65768D/36
- TOXN 21.12.79 TOYO JOZO KK B04 D16 J04 = J5 6088-793
Extn. of ascorbate oxidase from Sechium edule - 50270D/28
- TOYJ 03.04.79 TOYO SODA CO LTD B05 D16 = US 4284-721
Di:peptide prodn. in presence of immobilised protease - 73469C/42
- *TOYM 19.12.79 TOYOBOK KK B04 D16 *J5 6088-792
Stabilising of acyl-coenzyme/A synthetase - 64855D/36
- *TSIL 21.12.79 TOSHIBA SILICONE KK A96 D22 *J5 6089-263
Prepn. of gyps bandage by curing silicone compsn. - 64929D/36
- *TSUH 22.12.79 TSUKISHIMA KIKAI KK D15 J01 *J5 6089-809
Dewatering unit for endless filter belt - 65025D/36
- *TSUH 22.12.79 TSUKISHIMA KIKAI KK D15 J01 *J5 6089-810
Appts. for dewatering filter cake - 65026D/36
- TSZE 07.02.79 TATABANYAI SZENBANYAK D15 = DD -148-758
Purifying waste water contg. dissolved organic impurities - 62714C/36
- *TUME= 21.07.78 TYMEN MEDOBORUDOVAN D22 *SU -789-117
Unit for sterilisation of syringes for medical use - 65621D/36
- *UDWE= 24.01.79 UKR MIN DWELL COMMU D15 *SU -789-440
Effluent sediment off/loader - 65773D/36
- *UFAP 18.09.78 UFA PETROLEUM INST D15 J04 S03 *SU -787-991
Automatic water prepn. hardness salts determ. - 65563D/36
- *UFOO= 15.12.77 UKR FOOD IND WKS DES INS D16 *SU -789-102
Concentrating granular malt in alcohol prodn. - 65609D/36
- *UGLI= 11.08.78 UGLICH BUTTER CHEES D13 *SU -789-095
Enriched butter prodn. - 65602D/36
- *UGLI= 11.09.78 UGLICH BUTTER CHEES D13 (D16) *SU -789-093
Bacterial fermentation starter for dry curd cheese mfr. - 65600D/36
- *UGLI= 15.01.79 UGLICH BUTTER CHEES D13 *SU -786-946
Tunnel and trolley cheese press - 65452D/36
- *UNBI- 14.02.80 UTD BISCUITS UK LTD D13 *GB 2069-812
Treatment of rice by initial softening - 64585D/36
- UNIC 28.06.77 UNION CARBIDE CORP A97 D12 = AT 7804-674
Food casings providing brown smoke colour - 02455B/02
- UNIC 27.01.78 UNION CARBIDE CORP D12 = AT 8002-937
Wrapping for food products esp. sausages - 56294B/31
- UNIL 05.12.79 UNILEVER NV D22 E34 = J5 6090-897
Liq. thickened chlorine bleach compsn. - 46258D/26
- UNIL 16.01.80 UNILEVER NV D13 = NL 8000-258
Margarine with improved creaming and whipping properties - 57280D/32
- UNIL 25.01.80 UNILEVER NV A96 D22 (A32) = BR 8100-387
Mfr. of water absorbent articles - 59034D/33
- UNVO 24.09.75 UOP INC D16 E17 H04 J01 = J8 1034-569
Normal-paraffins sepn. from mixts. contg. iso paraffins and aromatics - 23857Y/14
- *URAL= 31.01.79 URALENERGOTSVETMET D15 *SU -789-399
Compression type liq. effluent flotation unit - 65762D/36

USDA

- *USDA 22.09.78 US SEC OF AGRICULTURE D13 *US 4284-651
Preparing peeled citrus fruit sections - 65950D/36
- USRU 24.03.75 UNIROYAL INC A11 D13 (A97) = J8 1034-338
Clear elastic gels for desserts - 47960X/25
- *USSH 03.07.80 US SEC OF HEALTH B04 D16 *US 4284-537
Conjugates of streptococcal M protein fragments with poly:lysine -
65903D/36
- UYDE- 16.04.75 UNIV OF DELAWARE A11 D22 F01 (A94) = CA 1104-313
Re-natured chitin articles, e.g. films, fibres or tubes - 83512X/45
- UYMO- 12.06.79 MONTANA STATE UNIV C03 D13 (D16) = J5 6088-767
Processing waxy barley to protein prods. - 06205D/05
- *UYNC- 20.06.80 N CAROLINA UNIV B04 D16 *US 4284-553
Reversible covalent immobilisation of proteins to inorganic oxide -
65912D/36
- UYRO- 15.10.79 UNIV OF ROCHESTER B04 D16 = DK 8004-344
Asporogenous bacillus subtilis ATCC 31578 - 42329D/24

- *VAND/ 28.01.80 VANDEVOORDE P D15 J01 *FR 2474-328
Sepn. tank for immiscible liquids with different densities - 64518D/36
- VEEV- 17.10.79 CENT VEEVOED SLOTEN C03 D13 = DK 8004-402
Dry powdered milk prod. which dissolves in cold water - 13758D/09
- *VIDA/ 18.01.80 VIDAL P D15 *FR 2474-015
Treating waste water and purifying sludge - 64490D/36
- *VILE= 13.11.78 VILESOV N G C03 D13 *SU -789-069
Prepn. of granulated food for fish - 65590D/36
- *VRIE- 29.01.80 STICHTING VRIENDEN B04 D16 *NL 8000-527
Promoting formation of hybrid cells or hybridoma antibodies - 65361D/36

- WALK- 14.07.80 WALKER PROCESS CORP A32 D15 (A88) = US 4284-396
Appts. for continuous thermo-forming thermoplastic sheet - 55165D/31
- *WATE= 15.12.78 WATER CONSERVATION D15 *SU -789-428
Biological cleaner for water channels - 65771D/36
- WATE= 19.12.79 WATER PROBLEMS RES D15 #DE 2951-173
Floating decanter with tubular risers to clarify river water etc. -
62694D/35
- WEDA- 11.04.79 WEDA-DAMMANN & WEST C03 D13 = AT 8001-906
Pumpable cattle fodder preparation - 77211C/44
- WEIS- 23.12.75 GEBR WEISS AG D16 J01 = AT 7609-312
Filtering exhaust gases contg. organic cpds. - 48923Y/28
- WELL 20.10.76 WELLCOME FOUNDATION LTD B02 C02 D16 = AT 7703-331
Prostaglandin derivs. - 81213Y/46
- *WERN 14.01.80 WERNER & PFLEIDERER D11 *DE 3046-029
Dough moulding machine - 64340D/36
- WILL/ 22.01.80 WILLSEY C H D13 = NL 8006-726
Egg breaking and contents separating machine - 55584D/31

- *YAMA 22.08.79 YAMANOUCHI PHARM KK B02 D16 *J5 6030-988
Prepn. of 7-methoxy-cephalosporin derivs. - 64715D/36
- YAMA/ 26.00.73 YAMAZAKI Y D15 J01 = J4 9108-669
Filter press for filtering waste water, etc. - 65320D/36
- *YAMA/ 26.00.73 YAMAZAKI Y D15 J01 *J8 1034-144
Filter press for filtering waste water, etc. - 65320D/36
- *YURJ/ 16.11.77 YU R J B05 D21 E33 *US 4284-630
Stabilised water-in-oil emulsions for topical use - 65947D/36

- ZIEG/ 28.03.79 ZIEGLER R D11 = AT 8000-853
Wood-fired heat-storing baking oven - 73811C/42
- *ZULU/ 05.02.81 ZULAUF W E D15 (D16) *BR 8100-781
Combined biochemical gas capturing, treatment and recirculation system
- D/36

F		AT 7401-093 D36		DK 7601-350 X51+		48865-Y DL		AT 7703-331 D36+		23336-A ADJ		62150-A AD		DD -135-507 B30+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Y12	-500-768 Y13+	-590-927 Y36	1038-555 A40	76212-X DE	DE 2612-749 X41+	BE -840-103 X42+	NL 7603-279 X42+	BR 7601-879 X47+	NO 7601-069 X47+	J5 1118-759 X49+	2504-618 W34+	7500-788 W34+	0107-149 W42+	2259-831 W47+	1460-872 Y01+	-585-024 Y16	-585-742 Y18	-585-744 Y18	-585-743 Y18	-586-217 Y18	-586-020 Y18	2559-751 Y48+	4120-830 A43+	2504-618 B40+	5011-599 C10+	2559-751 C14+	0023-062 C29+	5104-881 C39+	-165-783 D03+	1034-271 D36+	17518-X BDE	J5 1006-946 X10	J8 1034-580 D36	17519-X BDE	J5 1006-947 X10	J8 1034-579 D36	33113-X D	J5 1032-758 X18	J8 1034-253 D36	37019-X D	J5 1038-457 X20	J8 1034-268 D36	38932-X D	J5 1041-465 X21	J8 1034-269 D36	44786-X DJ	J5 1049-180 X24	J8 1034-324 D36	47960-X AD	US 3962-482 X25	DE 2612-342 X41	NO 7601-016 X46	J5 1126-386 X51	DK 7601-265 X51	FR 2305-461 Y04	PT -64-932 Y10	DS 2612-342 A12	CA 1045-936 B05	GB 1541-272 B09	J8 1034-338 D36	48519-X ADJ	J5 1052-489 X26	J8 1034-014 D36	51906-X DJ	US 3965-012 X27	DE 2518-614 X45+	GB 1477-779 Y26+	J5 0089-275 D36	J8 1034-322 D36	56997-X D	J5 1067-758 X30	J8 1034-265 D36	76212-X DE	DE 2612-749 X41+	BE -840-103 X42+	NL 7603-279 X42+	BR 7601-879 X47+	NO 7601-069 X47+	J5 1118-759 X49+	2504-618 W34+	7500-788 W34+	0107-149 W42+	2259-831 W47+	1460-872 Y01+	-585-024 Y16	-585-742 Y18	-585-744 Y18	-585-743 Y18	-586-217 Y18	-586-020 Y18	2559-751 Y48+	4120-830 A43+	2504-618 B40+	5011-599 C10+	2559-751 C14+	0023-062 C29+	5104-881 C39+	-165-783 D03+	1034-271 D36+	17518-X BDE	J5 1006-946 X10	J8 1034-580 D36	17519-X BDE	J5 1006-947 X10	J8 1034-579 D36	33113-X D	J5 1032-758 X18	J8 1034-253 D36	37019-X D	J5 1038-457 X20	J8 1034-268 D36	38932-X D	J5 1041-465 X21	J8 1034-269 D36	44786-X DJ	J5 1049-180 X24	J8 1034-324 D36	47960-X AD	US 3962-482 X25	DE 2612-342 X41	NO 7601-016 X46	J5 1126-386 X51	DK 7601-265 X51	FR 2305-461 Y04	PT -64-932 Y10	DS 2612-342 A12	CA 1045-936 B05	GB 1541-272 B09	J8 1034-338 D36	48519-X ADJ	J5 1052-489 X26	J8 1034-014 D36	51906-X DJ	US 3965-012 X27	DE 2518-614 X45+	GB 1477-779 Y26+	J5 0089-275 D36	J8 1034-322 D36	56997-X D	J5 1067-758 X30	J8 1034-265 D36	76212-X DE	DE 2612-749 X41+	BE -840-103 X42+	NL 7603-279 X42+	BR 7601-879 X47+	NO 7601-069 X47+	J5 1118-759 X49+	2504-618 W34+	7500-788 W34+	0107-149 W42+	2259-831 W47+	1460-872 Y01+	-585-024 Y16	-585-742 Y18	-585-744 Y18	-585-743 Y18	-586-217 Y18	-586-020 Y18	2559-751 Y48+	4120-830 A43+	2504-618 B40+	5011-599 C10+	2559-751 C14+	0023-062 C29+	5104-881 C39+	-165-783 D03+	1034-271 D36+	17518-X BDE	J5 1006-946 X10	J8 1034-580 D36	17519-X BDE	J5 1006-947 X10	J8 1034-579 D36	33113-X D	J5 1032-758 X18	J8 1034-253 D36	37019-X D	J5 1038-457 X20	J8 1034-268 D36	38932-X D	J5 1041-465 X21	J8 1034-269 D36	44786-X DJ	J5 1049-180 X24	J8 1034-324 D36	47960-X AD	US 3962-482 X25	DE 2612-342 X41	NO 7601-016 X46	J5 1126-386 X51	DK 7601-265 X51	FR 2305-461 Y04	PT -64-932 Y10	DS 2612-342 A12	CA 1045-936 B05	GB 1541-272 B09	J8 1034-338 D36	48519-X ADJ	J5 1052-489 X26	J8 1034-014 D36	51906-X DJ	US 3965-012 X27	DE 2518-614 X45+	GB 1477-779 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FR 2434-577 C24	J5 4113-469 B42	DS 2960-374 D36	US 4278-817 D31	SE 8000-823 C38+	GB 1595-059 D32	FI 8003-116 D30	J5 6089-252 D36
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	US 4171-381 B43	GB 1597-048 D36		DE 2939-663 D16+		DK 8003-945 D36	
18378-B DE	FR 2415-588 B45	05974-C DE	41995-C BCDE	DD -148-766 D36+	06205-D CD		34773-D ADE
EP --916 B10+	ZA 7900-350 C13	GB 2025-229 C04	EP --12-108 C24		EP --22-619 D05	29210-D DE	EP --28-038 D27
DK 7803-679 B14+	AT 8002-937 D36	DE 2927-016 C05	J5 5073-625 C29	60935-C CDE	J5 6088-767 D36	DE 2940-192 D17	US 4284-532 D36
NO 7802-821 B15+		SE 7906-037 C09	BR 7907-534 C43	EP --14-648 C35+		BE -888-527 D36	
J5 4041-806 B19+	61658-B ACDE	J5 5014-094 C11	US 4284-828 D36	FR 2449-255 C48	06232-D BD		35265-D DJ
BR 7805-331 B19+	DE 2806-019 B34	FR 2442-634 C38		FR 2474-646 D36+	EP --22-670 D05	29454-D DE	J8 1034-136 D36
FI 7802-516 B22+	EP --3-585 B34	US 4235-332 C50+	43314-C DJM		NO 8002-096 D10	FR 2460-664 D17	
PT --68-440 B31+	DK 7900-593 B39	US 4276-263 D29+	BE -881-417 C25	62714-C D	DK 8002-762 D12	FR 2474-490 D36	36137-D ADE
DE 2813-204 B41+	BR 7900-892 B39	US 4284-599 D36+	PT --70-738 C32	DE 3004-121 C36	FI 8002-224 D13		US 4264-466 D27
DD -138-311 C05+	PT --69-211 B44		WP 8001-563 C34	GB 2046-235 C46	US 4284-412 D36	30816-D DE	EP --34-387 D27
AT 7806-007 C23+	J5 4125-700 B45	08510-C CD	FI 8000-250 C43	FR 2448-510 C48		BE -885-758 D18	
CS 7805-425 C28+	ZA 7900-626 C15	J5 4160-662 C05	SE 8006-649 C47	HU T020-117 D29	09665-D DE	BR 8006-701 D19	36694-D BD
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EP G000-916 D22+	EP G003-585 D36	09534-C BDE	NO 8002-849 C51		EP --28-136 D20	DE 2942-544 D19	GB 2064-517 D27
DS 2860-715 D36+		EP --7-486 C06	BR 7900-702 D01	71561-C DE	J5 6061-995 D28	SE 8007-182 D24	J5 6090-090 D27
	64996-B DE	J5 5011-590 C10	EP --22-839 D06	WP 8001-905 C40	FI 8002-967 D30	GB 2064-294 D25	
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DE 2838-308 B13+	BR 7901-212 B42		DK 8003-914 D13	GB 2055-782 D11		J5 6085-275 D35	US 4265-877 D27
SE 7809-223 B15+	J5 4160-403 C05	11468-C ACD	DE 3030-676 D30	DE 2953-595 D30		DK 8004-318 D36	GB 2069-837 D27
GB 2005-537 B17+	SE 8001-309 C16	GB 1561-132 C07	DD -148-795 D36	EP --34-184 D36	13671-D BD		
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CA 1104-494 D36	GB 2042-005 C38	US 4187-190 C07+	GB 2065-447 D27+	NL 8001-902 C43		NL 8005-773 D19	FR 2473-568 D27
	FR 2443-500 C39	CA 1094-909 D10	SE 7910-095 D30+	DE 3012-693 C43	13758-D CD	DE 3039-288 D19	NL 8100-129 D27
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65355-D D NL 8000-300 D36	65558-D D SU -787-986 D36	65618-D BD SU -789-114 D36	65911-D BD US 4284-552 D36 +
65357-D AD NL 8000-395 D36	65559-D D SU -787-987 D36	65619-D BD SU -789-115 D36	65912-D BD US 4284-553 D36
65358-D D NL 8000-489 D36	65560-D D SU -787-988 D36	65620-D D SU -789-116 D36 +	65922-D DE US 4284-580 D36
65360-D AD NL 8000-503 D36	65562-D D SU -787-990 D36	65621-D D SU -789-117 D36	65929-D D US 4284-600 D36
65361-D BD NL 8000-527 D36	65563-D DJ SU -787-991 D36	65648-D DJ SU -789-147 D36	65935-D DJM US 4284-609 D36 +
65369-D D SE 8007-594 D36 SE 8007-594 D30 BR 8007-537 D30	65565-D D SU -787-993 D36	65757-D D SU -789-355 D36	65947-D BDE US 4284-630 D36 +
65404-D D SU -776-590 D36	65566-D BCD SU -787-994 D36	65760-D DH SU -789-397 D36	65950-D D US 4284-651 D36 +
65405-D D SU -776-592 D36	65567-D BCD SU -787-995 D36	65761-D DJ SU -789-398 D36	65951-D CD US 4284-652 D36 +
65406-D D SU -776-633 D36	65570-D BD SU -787-998 D36	65762-D D SU -789-399 D36	65952-D D US 4284-653 D36 + J5 6088-779 D36
65414-D D SU -777-054 D36	65587-D D SU -789-064 D36	65763-D DH SU -789-403 D36	65953-D DE US 4284-654 D36 +
65415-D DE SU -777-064 D36	65588-D D SU -789-066 D36	65764-D DJ SU -789-405 D36	65954-D D US 4284-655 D36
65452-D D SU -786-946 D36	65589-D CD SU -789-068 D36	65765-D D SU -789-407 D36	65955-D D US 4284-656 D36
65463-D D SU -787-280 D36	65590-D CD SU -789-069 D36	65766-D D SU -789-408 D36	65956-D D US 4284-657 D36
65481-D ADF SU -787-438 D36	65591-D CD SU -789-077 D36	65767-D DJ SU -789-409 D36	65983-D D US 4284-722 D36 +
65493-D D SU -787-454 D36	65592-D D SU -789-084 D36	65768-D D SU -789-423 D36	65984-D DE US 4284-723 D36 +
65494-D D SU -787-455 D36	65593-D D SU -789-085 D36	65769-D D SU -789-424 D36	65985-D D US 4284-724 D36 +
65496-D BD SU -787-463 D36	65594-D D SU -789-087 D36	65770-D D SU -789-425 D36	65986-D BD US 4284-725 D36
65497-D BD SU -787-464 D36	65595-D D SU -789-088 D36	65771-D D SU -789-428 D36	66020-D BDE US 4284-819 D36 +
65498-D D SU -787-465 D36	65596-D D SU -789-089 D36	65772-D D SU -789-438 D36	66021-D DE US 4284-824 D36
65499-D D SU -787-467 D36	65597-D CD SU -789-090 D36	65773-D D SU -789-440 D36	66037-D D WP 8102-238 D36
65500-D D SU -787-468 D36	65598-D CD SU -789-091 D36	65785-D D US 4283-813 D36	66040-D AD WP 8102-254 D36
65501-D D SU -787-469 D36	65599-D D SU -789-092 D36	65805-D DE US 4284-089 D36	66060-D D WP 8102-308 D36
65502-D BD SU -787-470 D36	65600-D D SU -789-093 D36	65829-D D US 4284-359 D36	
65503-D D SU -787-471 D36	65601-D D SU -789-094 D36 +	65831-D D US 4284-361 D36	
	65602-D D SU -789-095 D36	65859-D D US 4284-454 D36	
	65603-D D SU -789-096 D36	65877-D DJ US 4284-492 D36	

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AT 7609
= 312 48923Y D16J01 + P3
= 784 32828Y A96D22P2

AT 7701
= 106 59388Y D15J01 + Q4

AT 7703
= 331 81213Y B02C02D16

AT 7705
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= 730 90086Y D22F04P2
= 960 68421Y D22P3

AT 7800
* 369 D D13

AT 7803
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= 698 86106A A96D22P3

AT 7804
= 674 02455B A97D12 + Q3

AT 7805
= 347 09978B A97D13

AT 7806
= 665 35797B D13E33

AT 7900
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AT 7902
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AT 7903
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AT 7907
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AT 7908
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AT 8000
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= 853 73811C D11

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AT 8002
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AT 8004
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DE -887
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= 530 62879D B04D16

DE -888
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* 494 64206D D13
* 504 64210D D12
= 527 29210D D25E34
* 532 64214D D16E17
* 535 64215D A97D25E19

DE 8000
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DE 8007
= 537 65369D D16

DE 8008
= 861 90094C A96D22P3

DE 8100
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= 339 59005D D12
= 384 62687D A96D21
= 386 42127D A96B05D21
= 387 59034D A96D22P3
= 400 59044D B05C03D13
= 420 40238D D15Q4
= 431 58995D D15Q3Q5
* 781 D D15P4

CA 1104
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* 409 64221D D13
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= 411 72688A D13
= 412 83190Y D11
= 413 83246Y D13
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= 451 64996B D25E19
= 452 42523A D25E19 + P4
= 494 24176B A96C03D13
= 511 06446A A92D16Q3 + P2
= 518 09816B D15
= 562 30932Y B02C02D13
= 582 02053A D25E19 + Q7
= 748 23336A A88D15J01

CS 8000
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DD -148
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714 45179C D12
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= 758 62714C D15
* 764 64247D D16E17J01
= 766 60827C D21E17F06H07
* 790 64258D D23J01
= 795 43314C D15J01M11
= 830 58876C B04D16J04S03R1

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DE 3004
* 682 64268D D15Q4

DE 3005
* 866 64273D D11

DE 3006
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* 635 64318D A96B04D21
* 709 64326D B04C03D16S03R1
* 710 64327D B04D16

DE 3039
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= 772 40699D C01D22E11F06

DE 3044
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= 404 42437D A96D22F07P3
= 655 55177D D13
= 726 44652D D23 + P7

DE 3045
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* 134 64336D D14J08Q7
= 179 46417D D16 + P3

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= 278 62978D D15J01
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= 442 30831D A96D21
= 443 32610D D21E12
= 518 45924D D13
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DK 8004
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= 344 42329D B04D16
= 346 32887D D12 + Q3
= 379 31178D B04C03D16
= 388 30819D A96B04D22P3
= 402 13758D C03D13
= 407 32939D D25E12

DK 8005
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= 354 32292F B02D22

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= 715 18378B D13E17
= 724 54894B B03D16

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= 378 20561C D23E15
= 379 46577C D23E15P1
= 380 41904C D23E15

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= 149 86394C D25E16
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= 182 21410D B03C02D22E13
= 184 71561C D15E14
190 51483C A96D21P2
194 22168C A97D25E17
* 213 64352D B04D16
222 11468C A97C03D15
227 48096C D12
= 275 62483D A97D25E17
= 291 62824D D14
= 293 62498D A96B04D16J04
* 304 64372D B04D16P3
= 306 62879D B04D16
* 307 64373D B04D16
= 320 62486D B04D16 + R1
* 334 64377D D23E17
* 369 64388D D18
* 385 64396D D21E12
= 387 36137D A97D25E19
= 393 41968D D25
* 429 64412D D14
* 430 64413D B05C03D23E14
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* 489 64434D D12
* 543 64453D B04D16

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EP G007
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FR 2473
* 836 64469D D15E17P1
* 840 64470D D13P1
* 841 64471D A92D22P1
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* 851 64474D D14
= 853 55657D D18F02 + P1Q3
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= 883 56983D A96D21
= 888 55375D A35D22X25Q3 + P3
889 40028C D22E19K08S05P3

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* 015 64490D D15
* 016 64491D D15H03J01Q4Q5
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* 052 64500D B04D16
= 053 56963D D17E13
= 278 59059D A97C01D16
= 280 42113D D11
281 34494C D13 + P1
* 282 64515D D14
= 310 56976D D21E17
= 311 60792D D21
* 328 64518D D15J01
* 343 64521D D15P1 + P4
= 346 57400D A35D18F06P4 + P1
* 406 64531D D22X22P3Q1
= 473 47819D A97D15H03Q4
* 474 64533D D15Q4
= 480 48865Y D21L02P3
= 488 59044D B05C03D13
= 490 29454D D21E14
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* 506 64539D D13
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* 527 64541D D16E17H06
= 646 60935C C04D15E37Q7
* 669 64552D D14J08P1Q7R2

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= 812 62154A D16S03S05 + R1
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* 879 64560D D13
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= 913 91658A D15
= 922 38504A A11D12 + Q3
= 923 38503A A11D12 + Q3
= 924 38450A B05C03D21E19
= 945 12204B D15
= 956 82087A D21E23

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= 107 27299A A97D18P1
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= 289 82835B A96D21
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* 806 64584D D14P1P4
* 812 64585D D13
* 813 64586D D13
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* 815 64587D D12X25
* 824 64588D D11
= 837 38049D B06D21E34
= 838 56976D D21E17
= 839 47865D D21E19
* 840 64590D D22P3
* 842 64591D A96D22E33K08P3
* 847 64593D A96D22P3
* 858 64597D D15P7
* 869 64601D D17P4
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* 022 64646D D16
* 023 64647D A35D23
= 025 47871D A14D25G02
* 032 64652D A81D15J01
* 086 64681D A84D22F04P2
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* 146 64691D D15H03J01Q4Q5
* 202 64695D D13Q6
* 217 64698D D13Q7
* 238 64701D D15S03R1
= 243 13671D B04D16S03R1

J4 9017
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J4 9074
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J4 9108
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J4 9119
= 869 65331D D15J01

J5 0005
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J5 0018
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J5 0062
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J5 0089
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* 262 64928D A97D22P3
* 263 64929D A96D22P3
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* 809 65025D D15J01P7
* 810 65026D D15J01P7
* 811 65027D D15J01P7
* 812 65028D D15J01
* 813 65029D D15J01
* 814 65030D D15J01
* 815 65031D A31D17J01
* 826 65042D D15J02
* 832 65047D B07D13J02
* 833 65048D D13J04
* 838 65053D A18D22F09P2
* 839 65054D A18D22F04
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* 900 65069D A88D15

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* 006 65093D A96D21
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= 043 44402D D21E14
* 046 65117D B05D16
* 076 65132D D23E13
= 090 36694D B02D16
= 097 46304D B04D16
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= 324 44786X D15J01
* 325 65329D D15J01
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* 333 65330D D15J01
* 334 65331D D15J01
= 337 31085V D13 + P4
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* 340 65333D D15
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= 357 89347X D15J01M25
= 358 89348X D15J01M25
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* 592 65405D D14
* 633 65406D D13P4

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* 064 65415D D18E17

SU -786
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SU -787
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* 438 65481D A25D22F08
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* 464 65497D B04D16
* 465 65498D D16
* 467 65499D D16T06
* 468 65500D D16
* 469 65501D D16
* 470 65502D B04D16
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* 472 65504D D16
* 474 65505D A97D17
* 475 65506D D17X25
* 476 65507D D17T06
* 477 65508D D17
* 986 65558D D13S03R1
* 987 65559D D14S03X25R1
* 988 65560D D12S03R1
* 990 65562D D12S03R2
* 991 65563D D15J04S03R1
* 993 65565D D16S03R1
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* 995 65567D B04C03D16S03R1
* 998 65570D B04D16S03R1

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* 084 65592D D22
* 085 65593D D12P6
* 087 65594D D13
* 088 65595D D13
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* 090 65597D C03D13
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* 097 65604D D13P1
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* 099 65606D D13
* 101 65608D D14
* 102 65609D D16
* 114 65618D B04D16
* 115 65619D B04D16P3
* 116 65620D D16
* 117 65621D D22P3
* 147 65648D D15J02
* 355 65757D D11Q3
* 397 65760D D15H03
* 398 65761D D15J01
* 399 65762D D15
* 403 65763D D15H05P4
* 405 65764D D15J03X25
* 407 65765D D15X25
* 408 65766D D15X25
* 409 65767D D15J01
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* 424 65769D D15P1
* 425 65770D D15
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* 438 65772D D15
* 440 65773D D15

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* 813 65785D D12
= 923 54020C D13Q7
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Section D:

**FOOD
DETERGENTS**

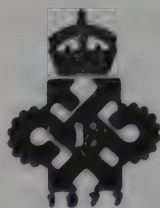
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17 NOV 1981
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ABSTRACTS

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**Includes numbered Basics from Week D26

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating,
A+	Polymer Applns.		Photographic Chemistry
B	Pharmaceuticals	H	Petroleum
C	Agricultural Chemistry	J	Chemical Engineering
D	Food, Disinfectants, Detergents	K	Nucleonics, Explosives, Protection
E	General Chemistry	L	Refractories, Ceramics
E+	General Chemistry Applns.	M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code		Main CPI Class for Section		Patent No	
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Other Classes		Latest Priority		Earliest Priority	
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		Accession No		IPC	
MEDA-		A89		69369W/42 =US 3964-992	
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)					
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)					
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26					

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21/22 Sept	Chicago	A Coding/Retrieval		
23 Sept	Chicago	Online Searching		
23 Sept	Chicago		Online Searching	
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1/2 Oct	Washington DC		A Coding/Retrieval	
5 Oct	New York	Online Searching		
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5/6 Nov	London		A Coding/Retrieval	
9/10 Nov	Milan	BCE Coding/Retrieval		
11 Nov	Milan	Online Searching		



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D1: FOOD; FERMENTATION

D11: BAKING

PANE/ ★ D11 66091 D/37 ★ BE -888-593
Filling pre-baked patisserie prod. for cutting individual portions - to reference lines ensuring fair share of filling to each portion

PANELLA C 28.04.80-IT-048524

(17.08.81) A21d

28.04.81 as 888593 (448HM)

Filled patisserie prod. and a method of filling a prebaked prod. with an edible, creamy or semi-liq. paste. The filling is injected via an in-line series of hollow needles as the needles are withdrawn after being inserted into the prod. The surface traces left by the extracted needles are used as reference lines between which cuts are made to divide the prod. into parallel slices or angular segments. In this manner, each slice or segment is then known to contain its share of filling.

The surface traces are pref. covered with an edible decoration, e.g. icing, chocolate, coffee cream. Cutting lines can be marked to ensure that the filling lies centrally between the surface traces or decorations.

Prodn. of confectionery prods. ready for cutting into filled, individual slices or segments. Each individual portion is easily cut to contain a predetermined quantity of filling. (10pp)

GOTH- ★ D11 66264 D/37 ★ DE 3042-266
Thin filled wafer mfr. - by automated loading of waters and filler for heating and cooling tunnel

ING & MECH GOTH 28.12.79-DD-218205

(03.09.81) A21b-07 A21c-15/02

08.11.80 as 042266 (39AT)

A machine for the prodn. of two-part pastry, consisting of two thin wafers with a filling layer between them, consists of a first endless chain on which a first wafer is sprinkled with the filler and covered by a second wafer. A doubling chain above the first then keeps the pastry together as it is passed through a heating tunnel, and a cooling tunnel to the discharge station.

The entire operation, including the laying of both wafers on the chain, is done automatically. No damage is done throughout the treatment to the delicate thin wafers. (25pp)

DIER D11 74667 B/41 = DS 1757-361
Dough kneading appts. comprising rotating tub - contg. two rotating kneading tools arranged to give minimum heat generation and vibration-free operation

DIERKS & SOHNE 30.04.68-DE-757361

(03.09.81) *NL-161-339 A21c-01/02

30.04.68 as 757361 (39AT)

A dough kneading machine consists of a revolving cylinder with flat bottom and two eccentric contra-rotating kneading tools. The tools consist of U-shaped tubes which are twisted along their length through 180 deg. in the direction of their rotation. The crossbar of one U-bracket is offset by 90 deg. from that of the other U-bracket.

The radius of action of the bracket nearer to the trough middle overlaps the centre line of the trough.

Such a machine has a much increased kneading capacity, combined with a min. of heat generation, resulting in a better quality of the dough. DS (6pp)

BONG/ ★ D11 66422 D/37 ★ FR 2474-822
Heater for forced circulation of air through bakery oven - has interchangeable module comprising heater and heat exchanger

BONGARD P 05.02.80-FR-002742

(07.08.81) A21b-01

05.02.80 as 002742 (448BZ)

The air heater comprises a blower unit employing one or more fans. The suction side of the blower unit is connected to the upper part of the oven. The blower unit recycles the air into the top of a duct extending down through an indirect heat exchanger, which has a low level outlet leading into the lower part of the oven.

An interchangeable heater fits removably into a chamber inside the heat exchanger casing. The heater is designed to be withdrawn via a removable side panel of the casing. The panel is bolted or clamped over the heater access port which is surrounded by a compression seal to be sandwiched between panel and casing.

Inside the casing, opposed side walls at right angles to panel are pref. fitted horizontal support slides. The leading end of the heater than has a transverse bar of which the ends rest on the slides. The indirect heat exchanger may be of the multi-plate

type. The heater may employ a gas/oil burner or may use electric resistance heating elements.

The heater is easily removable to facilitate cleaning and maintenance of the heater itself, the heat exchanger and the interior of the casing. It is now simple and inexpensive to convert from gas or oil firing to electric heating and vice versa. (6pp)

META- ★ D11 66423 D/37 ★ FR 2474-823
Mfg. waffles etc. in split moulds holding prods. vertically - to eliminate skill required for manual turning of horizontal moulds

MFR METAL TOURNUS 31.01.80-FR-002507

(07.08.81) A21b-05/02

31.01.80 as 002507 (448BZ)

A process and a mould assembly for making waffles etc. The mould is of the type which demoulds the prod. by splitting centrally into two half-moulds. The two half-moulds are brought together with their contact faces in a vertical plane. Semi-liq. waffle paste is introduced into the mould cavity via an inlet between the contact faces. The vertical mould is heated to cook the prod. and the mould-halves are subsequently parted to demould the solidified cooked prod.

The mould inlet is pref. at the top of the mould assembly and paste is fed in by gravity. As the paste is introduced, clearance between contact faces should be less than 1.5mm. The paste is pref. poured while its viscosity is between 25 seconds and 2 minutes CF4. Cooking temp. is pref. between 140 and 180 deg.C.

Mould-halves can be hinged or slidable, or both, for relative movement which parts and brings them together. The width of the interface contact surface is pref. not less than 5 mm, more partic. between 8 and 25 mm.

Used for moulding and baking waffles, fritters, wafer biscuits, pancakes etc. (11pp)

BUIT- ★ D11 66426 D/37 ★ FR 2474-831
Fast cooking cereal based prod. e.g. macaroni - produced by steam gelatinising thin walled paste and drying

BUITONI 05.02.80-FR-002461

(07.08.81) A231-01/16

05.02.80 as 002461 (597HM)

Process comprises prepn. of a paste with water and semolina or flour. The paste is formed into thin walled elements e.g. by extrusion or lamination. The starch is then gelatinised by steam cooking the elements under pressure followed by drying the pastes to below about 13% moisture content.

The process is applied to prods. such as macaroni, which are rehydrated with boiling water. It enables rapid cooking in a few minutes without adverse effect on the taste. (10pp)

BRAR- ★ D11 66499 D/37 ★ GB 2070-408
Flaky pastry dough prodn. - by slicing mass of dough contg. discrete hard fat lumps, and pressing or rolling flakes formed

BRIT ARKADY CO LTD 26.01.81-GB-002326 (26.01.80-GB-002701)

(09.09.81) A21d-13/08

26.01.81 as 102326 (955KB)

In the prod. of flaky pastry, the requisite quantities of flour cpd. fat or cake margarine, water and salt are mixed, then discrete pieces of high m.pt. hard fat are added, and the mixt. agitated to give a dough contg. the hard fat still in separate pieces. After cooling if necessary, the dough is cut, flaked or sliced into thin strips which are collected so as to lie wholly or partially on top of one another. The flakes are then rolled, or pressed and then rolled, into a sheet of dough consisting of thin layers of dough separated by layers of hard fat.

The process is quick, as the need for resting the dough is avoided. The machinery required is simple. (4pp)

GEME- D11 05989 C/04 = US 4285-653
Folding food-crepe along diagonal by dropping into shaped casing - feeding fold between pinch rollers removing crepe from casing

ETABGEN MEC OUEST (EGMO) 04.07.78-FR-019944

+ Q36 (25.08.81) *GB2025-306 + A21c-11

26.06.79 as 052328 (1376JB)

Crepes are folded by allowing them to fall from the end drum of an upper conveyor belt onto a hollow casing which is positioned to form a fold transverse to the movement direction. The crepes are then passed between a pair of horizontal feed rollers adjacent to

the casing, onto a lower conveyor belt. The base of the casing is below the upper surface of the lower belt and has a wall which directs the crepes towards the pair of rollers.

Hardening of starch during cooling after cooking is prevented. (7pp)

QUIN/ ★ D11 67871 D/37 ★ US 4285-978
Decorating baked goods with sharp coloured patterns - using printed transfer carrying water-sol. edible inks

QUINLIVAN S L 21.08.80-US-180003 (08.05.78-US-904030)
(25.08.81) A23g-03/28

21.08.80 as 180003 (21.3.79-US-022627) (955BZ)

Decorated baked goods are prepd. by forming a body of relatively plastic uncooked unleavened dough, having a flat upper surface, applying a transfer having a pre-printed design in an edible water-soluble ink on it, and supplying moisture to the transfer to cause the ink to leach out onto the dough surface. The dough is then baked.

The method enables complex designs in several colours to be applied by unskilled persons. It is suitable for domestic or large scale use. The ink pattern is sharp, strongly coloured, and well fixed on the dough surface, so it does not run on application of a glaze. The finished goods may be frozen. (7pp)

IZZI/ ★ D11 67872 D/37 ★ US 4285-979
Bread dough product e.g. pizza - formed from flat sheet partially fried and subsequently baked

IZZI E F 03.06.80-US-155972 (30.05.78-US-910892)
(25.08.81) A21d-06

03.06.80 as 155972 (295BZ)

A bread dough is formed into a flat sheet which is fried to a partially cooked condition. The frying time is sufficient to seal the surfaces of the sheet, but insufficient to permit distortion of the surfaces or to permit the dough sheet to separate internally into layers separated by air.

The dough is baked subsequent to the frying to obtain a cooked dough sheet with a crisp outer shell and a moist bread interior with the same shape as the originally formed dough sheet.

The product can be topped to form a pizza which can be frozen if desired. Also the product can be split and a sandwich filling inserted between the layers. Alternatively it can be cut into sticks prior to the frying stage and flavoured e.g. to form garlic bread sticks. (14pp)

D12: MEAT; FISH PROCESSING

MARU- ★ D12 66107 D/37 ★ CA 1103-984
Prodn. of palatable, flavour-rich squid prods. - including washing, seasoning and press-heating prior to skin removal

MARUTO TOYOYAMA SHO 31.07.78-JP-093481
(30.06.81) A231-01/32

23.11.78 as 316728 (558RH)

Semi-processed squid prods. are prepd. by washing raw squid, previously dressed by removing legs and intestinal parts and opening the body to spread out, in water while stirring to remove any sticky dirt; softening the skin, partic. the collagen layer, while hot, followed by cooling to ambient temp; mixing with seasoning agents and allowing to stand in a container for about 2hrs; and drying at least 35 deg.C for about 4 hrs. to water content 35-50 wt. %.

The prods. may be allowed to stand in a covered container at 20-25 deg.C for at least 24 hrs. without further drying, spread between upper and lower heat plates at 150-200 deg.C and pressed at 30 kg/cm.2 for about 3mins to water content 27-35. %. The press-heated prod. can be placed on a grinding roller to destroy the tissue fibres and peel off the skin, torn into long strips using a machine and seasoned.

The press-heated prod. is rich in flavour and durable in storage over a long period without using preservatives or vacuum packing; and gives highly palatable torn-up prods. The semi-processed prod. has palatable softness and shows high penetrability of seasoning agents. The process gives a higher yield and lower environmental pollution and has lower costs than the conventional method. (1pp)

LUKE/ ★ D12 D/37 ★ CS 7906-503
Collagen casings for meat products
LUKE S E 26.09.79-CS-006503
(30.06.81) A22c-13

MOHN/ ★ D12 66148 D/37 ★ DD -148-922
Fish gutting machine - with movable guide clamps and tiltable rotary tool

MOHNKE H 05.02.80-DD-218884
(17.06.81) A22c-25/14

05.02.80 as 218884 (39HM)

Gutting machine for headed fish, esp. for use on board of fishing trawlers, consists of one or several pairs of curved guide clamps which are joined by a hinge at one end and can open out against the force of a spring. Various sizes of clamps are available and they can be moved relative to rotary scraping and cleaning tools in the horizontal and/or vertical direction.

This machine is readily adaptable to different types and sizes of fish and reduces manual labour in the rotary tool area to a min. (8pp)

NMHB D12 44299 D/25 = DS 2949-631
Double fish fillet skinning machine - with pre-scalping device of circular cutters and shaped blades

NORDISCH MASCH R BAADER 10.12.79-DE-949631
(03.09.81) *DE2949-631 A22c-25/17

10.12.79 as 949631 (39PW)

A machine for skinning double fish fillets, specially herrings in a marinated or seasoned condition passes the fish first by an endless belt to a pair of vertical cutter blades in the centre along the direction of motion which reach with their cutting edges to just above the belt. A circular cutter performs a centre cut and an endless chain with pricks carries the fish along the vertical blades.

These continue into a pair of L-shaped scraper blades which extend the cut more outward until the fish is passed on to the skinning blade above a roll at the end of the belt.

This ensures that the skin, e.g. of fat herrings, is reliably removed from the area of the dorsal fin rays. DS (5pp)

ADCO/ D12 21390 D/12 = EP -34-631
Manual fish scaler - liquid jet lifting scales before removal by toothed scraper

ADCOCK M R 28.08.79-US-070419
(02.09.81) *WP8100-506 A22c-25/02

28.08.80 as 901759 Based on WP8001112 (1358RP) (E) No-Citns. E(AT CH DE FR GB LI LU NL SE)

Fish scaler has a nozzle connected to a scraper and delivering an angled jet which lifts the scales from the skin immediately before they are detached by the scraper.

The row of teeth is pref. curved and the guard has part which is spaced from and perpendicular to the scraper front surface. The jet is pref. delivered from holes in a tube located adjacent the teeth and connected to a valved delivery tube secured to the scraper handle. Each hole pref. makes an angle of 45 deg. with a tangent to the surface of the adjacent tooth.

The scraper pref. has at least one row of serrated teeth projecting from its front surface, and a guard to deflect liquid and scales. (29pp)

OTIE/ ★ D12 66368 D/37 ★ EP -34-872
Dehydrating pre-coagulated protein-contg. sludge - by tangentially injecting low pressure steam to precipitate agglomerates

OTTENSE P K 25.02.80-NL-001128
C03 (02.09.81) A23k-01 C02f-11/18 C12m-01/02

24.02.81 as 200219 (295HM) (E) US3936375 GB1192848 GB-420720 GB-196239 CH-227358 CH-491824 E(AT BE CH DE FR GB IT LI LU NL SE)

Pre-coagulated, protein contg., aq. sludge, which may or may not contain fat, obtd. from a water purificn. plant, is dehydrated. gas heated above 80 deg.C is passed into the sludge to agglomerate it. In a pref. embodiment, the gas is steam above 100 deg.C and at a pressure of 1.03-1.10 kg/cm2. Pref. during the introduction of the gas, the sludge is subjected to shear forces obtd. by injecting the gas tangentially so that it will rotate the sludge mass.

The sludge to be treated is pref. preheated to below 80 deg.C. The agglomerated sludge is filtered off and the filtrate obtd. used for the preheating. When fats are present, the agglomerated sludge is cooled to below the solidifying point of the fat, prior to filtration. The initial material may be sepd. into a protein-contg. sludge and a fat-contg. sludge which are processed separately. The sludge treated may be obtd. from a slaughter-house and is treated in an economical manner, to produce a protein-contg. agglomerate useful as a fodder. (16pp)

BORD/ ★ D12 66424 D/37 ★ FR 2474-825
Butchers powered hand knife for boning meat - gives blade an angular pivotal oscillation as it is reciprocated longitudinally
BORDETR 06.02.80-FR-002560
(07.08.81) A22c-17
06.02.80 as 002560 (448BZ)

A butcher's powered hand tool for boning meat has a knife blade that reciprocates longitudinally by a mechanism in a hand-held housing. Simultaneously with the longitudinal reciprocation, the mechanism is now designed to impart to the blade an angular, pivotal oscillation about the longitudinal axis of the blade.

Pref. the blade mounting is reciprocated by a crankpin rotated by bevel gears which are driven by a flexible cable transmission from a remote motor. The mounting is fixed to a slider which is reciprocated in a sheave block fixed in the housing. A longitudinal cam track on the slider engages a transverse peg in the sheave block; as the slider is reciprocated across the peg, the cam produces the pivotal, oscillatory motion.

The blade is pref. adjustable in its mounting to present its cutting edge at different angular settings.

The pivotal oscillation is necessary to part meat from bone. This has previously required a fatiguing, manual dexterity on the part of the butcher. (9pp)

UNIL D12 63784 A/36 = GB 1597-373
Uniform meat prod. prepn. from meat pieces - comprises pickling, cooling, coating with heat stable glue compsn., compacting and heating
UNILEVER NV 23.02.77-GB-007613
(09.09.81) *DE2807-563 A231-01/31
01.03.78 as ----- (931AT)

A unitary meat prod. is produced by assembling pieces of meat in a process comprising treating the pieces with a curing compsn. contg. phosphate ions to impregnate the meat; cooking to set the meat protein; and coating the cooked pieces with an edible, thermostable, heat-settable glue compsn.

The coated pieces of meat are then compacted, and heated to set the glue. Pref. beef is used as the meat, and the curing compsn. comprises an alkali metal tripolyphosphate, pyrophosphate and/or hexametaphosphate.

The prod. remains coherent on reheating (e.g. in the form of slices in gravy), retains the original texture of the meat, and does not wrinkle on reheating. (5pp)

UENS ★ D12 66818 D/37 ★ J5 6092-733
Meat preservative and preparing meat prod - where preservative comprises sorbic acid, capric acid mono:glyceride and nitric acid sp.

UENO SEIYAKU OYO KE 25.12.79-JP-167516
E17 (E36) (27.07.81) A23b-04/12
25.12.79 as 167516 (5AT)

Method is characterised by treating meat with preservative composed of (a) 0.05-0.2 (pref. 0.1-0.15) w/w% (as sorbic acid) of sorbic acid or its salt, (b) 0.005-0.05 (pref. 0.01- 0.03) w/w% capric acid monoglyceride and (c) 13-30 (pref. 20-27) ppm nitric acid gp.

Nitrite has been combined in meat prod. with the object of (a) suppressing the growth of the germs causing food poisoning esp. botulism, (b) colour-developing meat material in pink colour, (c) intensifying the taste and flavour specific to salted meat material, etc. For suppressing the growth of germs 120-156 ppm of nitrite has been required and for colour- developing 13-30 ppm of nitrite is required. It has now been found that by using the

preservative composed of (a), (b), (c) and (d) the growth of the germs can be suppressed sufficiently with decreasing the amt. of nitrite to the min. level required for colour development. (10pp)

KURE ★ D12 67222 D/37 ★ J8 1085-427
Boiled fish paste wrapping - in heat-shrinkable polypropylene film coated with vinylidene chloride resin and sorbitan surfactant (J5 20.8.75)

KUREHA CHEM IND KK 31.01.74-JP-012256
A92 (17.08.81) A231-01/32
31.01.74 as 012256 (22AT)

The surface of heat shrinking polypropylene film is coated with vinylidene chloride type resin and sorbitan type surfactant and is used to wrap boiled fish paste (kamaboko). (J50105857) (4pp)

REGC ★ D12 67668 D/37 ★ US 4285-099
Squid processing to remove tentacles and eyes - and viscera from body and body skin

UNIV OF CALIFORNIA 10.08.79-US-065538
(25.08.81) A22c-25/14
10.08.79 as 065538 (295BZ)

Squids are fed body-first, to an alignment section where a finger engages the end of the envelope of the body to advance it to a reference position. Knives then remove the tentacles and eye section which fall through separate chutes. Preferably the knives also remove a small portion of the envelope to facilitate the subsequent skinning process.

The body falls through an orienting chute and becomes impaled on a rotating hollow peg. Water jets remove the exterior skin and viscera. Preferably the rotating body is briefly clamped on the rotating peg to improve the removal of the skin and viscera.

The apparatus recovers and cleans the body of a squid. (6pp)

LEWI/ ★ D12 67873 D/37 ★ US 4285-980
Moulded poultry product shaped as cooked bird - with white meat in breast regions and dark meat in legs

LEWIS R 30.05.80-US-155148 (13.03.78-US-885516)
Q34 (25.08.81) A231-01/31 B65d-81/34
30.05.80 as 155148 (+ 25.4.79-US-033132) (295BZ)

A cooked poultry product is prepared by providing a flexible bag whose closed end is placed inside a mould whose cavity has the configuration of a whole cooked bird. This consists of breast and leg portions. The mould is placed on end and a filling tube is inserted through an access hole in the mould into the open end of the bag.

A white meat is forced through the filling tube causing the bag to stretch and the meat to fill the breast portion of the mould. A dark meat is subsequently introduced to fill the leg portions. The open end of the bag is closed and the mould is heated to cook the meat.

The resulting product is shaped like a cooked bird with white meat in the breast region, and dark meat in the leg regions. (7pp)

SOLO/ ★ D12 D/37 ★ ZA 8101-594
Meat extraction from crustacean legs - using water or compressed air supply to force meat out of the shell

SOLOMON R W 11.03.81-ZA-001594 (13.12.79-ZA-006757)
(25.05.81) A22b
11.03.81 as 001594 (AT)

A segment of a crustacean leg has its ends cut off and a water or compressed air supply nozzle is inserted into one of the openings provided at the cut ends, and the meat of the segment is forced out of the shell. (11pp)

See Also

D13 DD-148854

D13: OTHER FOODSTUFFS

SALV/ ★ D13 D/37 ★ BR 8000-854
Rice industry residues agglomerate
DE SOUZA JARDIM J 07.02.80-BR-000854
(18.08.81) B29j-01

STAR- ★ D13 66106 D/37 ★ CA 1103-978
Prepn. of coated solid semi-moist animal food particles - with coating of aq. fat emulsion distributed through matrix particles
STAR-KIST FOODS INC 11.10.77-US-830397
C03 (30.06.81) A23k-01/18
19.07.78 as 307726 (1248AT)
Prepn. of coated non-agglomerating solid particles of semi-moist animal food comprises applying a coating of an aq. emulsion of 15-50% of fat to the surface of a granular prod. contg. 10-40%

moisture, 20-60% cereal prod. and 2-30% water binder to impact bacteriostatic properties. The coating is applied to 10-35% of the granules.

The coated granules are stored for 0.5-24 hrs. for equilibrated distribution of coating throughout the matrix particles. Then the material is agitated to break up clumps and agglomerates formed during storage, and it is packaged in consumer containers.

The prod. is a free-flowing particulate intermediate moisture pet food that is coated with a flavour and/or appearance enhancer; it is free from agglomeration tendencies. (17pp)

UYQU- ★ D13 66114 D/37 ★ CA 1104-079
Prod. of microbial protein with comminuted tree bark - by alkali extraction and fermentation with white rot fungi
QUEENS UNIVERSITY 16.03.79-CA-323644
C03 (D16) (30.06.81) C12d-13/06
16.03.79 as 323644 (1248AT)

Prod. of microbial protein involves comminuting tree bark and then treating it with dil. aq. alkali to extract phenolic acids from it. Then forming an aq. slurry of the residual bark with white hot fungi, and agitating and controlling the temp. of the mixt. to promote growth of the fungi to produce the protein.

The white rot fungi are pref. *Phanerochaete chrysosporium*, *polyporus anceps* and *pleurotus sapidus*. The bark is suitably comminuted to 90-200 microns by milling then it is extd. with dil. aq. NaOH. Fermentation is at 30-40 deg.C in a fermenter having an agitator with blade tip speed of 0.05-0.13 m/sec. The bark is typically silver maple, eastern white cedar or eastern white pine barks.

The protein is obtd. economically and safely, and the prod. is suitable for use as an animal feedstuff without further processing. (23pp)

TEMI- ★ D13 66122 D/37 ★ DD -148-854
Yeast- or bacterial protein fibre prodn. - by wet-spinning alkaline soln. into acid and salt coagulating bath contg. oxidising agent
INST TECH MIKROBIOL 27.06.74-DD-179534
(D12) (17.06.81) A23j-03
27.06.74 as 179534 (200HM)

Oxidising agents are added to the coagulating bath or to one of the subsequent baths used in protein fibre prodn. by wet-spinning alk. protein solns. into an acid/salt bath. SH gp.- contg. initial proteins are used, e.g. yeast- or bacterial protein. All water-soluble oxidising agents can be used, e.g. dichromates, persulphates, H₂O₂ and air-O₂. Oxidising agent concn. can be 0.01-1(0.1-0.5)% at 5-100(20-50) deg.C for 10 secs. to 10 min. esp. 1-5 min.

The fibres can be used industrially and as meat substitutes in human nutrition. Low concns. of weak oxidising agents can be used to form additional disulphide bonds. Fibre strength and heat-stability are increased. (6pp)

DEAK ★ D13 66149 D/37 ★ DD -148-923
Transparent gel-forming protein fraction recovery - by extracting soluble protein with water at acid pH, PPTN. in isoelectric range and drying
AKAD WISSENSCHAFT DDR 05.02.80-DD-218882
(17.06.81) A23j-03
05.02.80 as 218882 (200HM)

Protein fractions, capable of forming transparent gels in an aq. medium at a given pH esp. 1-4, are recovered by extracting soluble proteins from the starting materials, esp. from protein concentrates, isolated fractions or flours of protein-contg. raw materials. Novelty consists in using water as extractant solvent in the presence of electrolytes, esp. dil. acid, at the pH specified for subsequent gel-formation. Insoluble materials are sepd. and the desired protein fraction is recovered from the aq. clear supernatant soln. by pptn. at isoelectric pH and subsequent spray-, freeze- or air-drying.

The prods. form heat-reversible stable gels for human nutrition, esp. aspic-, dessert- or fruit jellies, and can replace gelatin. (9pp)

BATS/ ★ D13 66176 D/37 ★ DE 2952-708
Cereal grain purification - by washing with calcium hydroxide soln. before mechanical working and pref. neutralising with carbon di:oxide
BATSCHIEDER A 29.12.79-DE-952708
P41 (03.09.81) B02b-01/04
29.12.79 as 952708 (200RH)

Cereal grains are purified by washing for at least 8 min. with Ca(OH)₂ soln. before the mechanical separation of both fruit husk surface layers.

After cleansing, the grains can be ground or worked to other prods., e.g. breakfast flakes. Ca(OH)₂-treatment kills parasite eggs and microorganisms on grain surface, in grain groove and in longitudinal cell membrane layer. The tomentum is removed

completely. At least 50% of noxious chemicals can be removed.

The grains can be washed with Ca(OH)₂ after opening their cleft. The soln. can be prepd. by using 1.2 g quicklime/l water. Washing is pref. continued up to a grain wt. increase of 4%, by moisture absorption. The fruit husk becomes elastic and is more easily separated. The Ca(OH)₂ used in washing is converted to CaCO₃ by neutralising with CO₂. Part of the CaCO₃ pptes. in the longitudinal cell membrane layer, where it promotes the loosening of fruit husk residues. (13pp)

SCHA/ ★ D13 66248 D/37 ★ DE 3007-383
Concentrate based on yeast liq., useful in human or animal nutrition - prepd. by partial evapn., adding milk or starch prods. etc., then drying
SCHANZER 27.02.80-DE-007383
C03 (D16) (03.09.81) A23k-01 A23l-01
27.02.80 as 007383 (1251AT)

Prod. of a concentrate (A) comprises first evaporating yeast liq., opt. after adding a soln. or suspension of by-prods. (B) from the dairy, starch or food industries or from industrial fermentation processes, to give a pre-concentrate (C) of 16-50% dry matter content. This mixed with suitable raw materials to increase dry matter content to 35-60%, then the blend dried to over 80% dry matter.

The final prod. contains, per 100 pts.dry matter, (a) 20-60pts. yeast liq. solids; (b) 30-60% milk by-prods. solids; (c) 5-25 pts. starch prod. solids; (d) 0-15 pts. cellulose and/or prods. rich in crude fibre; (e) 0-25 pts. fermentation process solids, and (f) 0-20 pts. solids from alcoholic fermentation, pulps or hydrolysates. (A) themselves are also claimed.

(A) are useful for human and particularly animal nutrition. It can be made with a standardised compsn.; has satisfactory stability, does not have any unpleasant taste; and is made simply and economically (esp. reduced energy costs for evaporation) from waste materials. (A) are rich in proteins. B vitamins, minerals, trace nutrients, enzymes and 'unidentified growth factors. (30pp)

GAUL- ★ D13 66292 D/37 ★ EP --34-675
Milk homogenisation between annular knife and valve seat - sepd. by less than 0.003 inch
GAULIN CORP 29.01.80-US-116601
P13 (02.09.81) A01j-11/16 B01f-05/08
06.05.80 as 301474 (295HM) (E) No-citns. E(AT BE CH DE FR GB IT LI LUNL SE)

Milk is introduced into a longitudinal bore which feeds the interior of a homogenising slit. The slit is formed between an annular knife and a planar valve seat sepd. by a preset distance. Embodiments are possible where the longitudinal bore feeds in parallel a stack of similar slits.

The spacing between the knife and seat is less than 0.003 in and pref. is 0.001 in. The knife tip is truncated to be parallel to the valve seat to form a milk passage of about 0.060 in.

The appts. homogenises milk at 500 gallons per hour. Employing multiple narrow slits allows a lower pressure to be used. (30pp)

GEES/ ★ D13 66364 D/37 ★ EP --34-861
Plastic mould or follower for cheese - with inner surface roughened by mechanical abrasion
GEESINK BT 20.02.80-NL-001029
A88 P13 (02.09.81) A01j-25/13
16.02.81 as 200179 (295AT) (E) NL--05990 DE2823182 NL--02524 DE2407583 GB1421528 AU--65784 NL---831 BE-881469 GB2040667 DE3002913 FR2447677 AU--54932 E(AT BE CH DE FR GB IT LI SE)

A cheese mould and/or follower is formed of plastic material whose wall has fine holes for draining away the whey. It is also formed with a non-smooth inner surface which has been mechanically roughened.

Pref. the inner surface is formed with a regular pattern of grooves superimposed upon which are fine scratches. The scratches may be produced by rubbing with a steel brush, coarse sand paper, a rasp or a scouring substance.

The mould may be made of polyethylene or polypropylene with pressed or moulded grooves or its inner surface. The inner surface is roughened to produce scratch-like recesses abutted by projections jutting out from the original surface. Pref. at least some of these projections have a thread shape.

The use of the mould and/or follower produces a quick and good rind but can also be readily cleaned. (5pp)

PFIZ ★ D13 66370 D/37 ★ EP --34-878
L-Aspartyl-D-amino acid dipeptide amide(s) - useful as stable
potency sweeteners for foods etc.

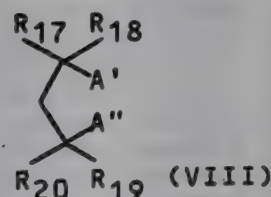
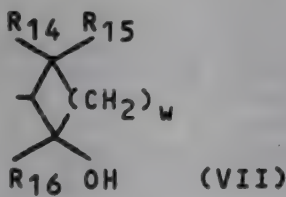
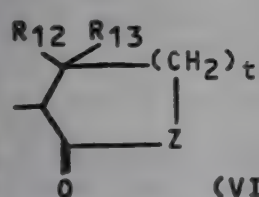
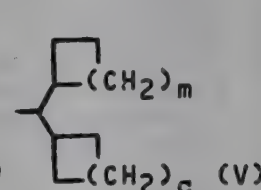
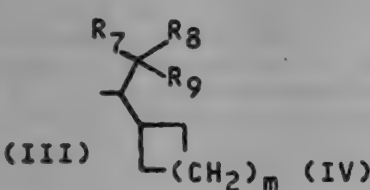
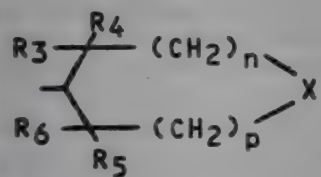
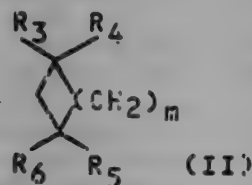
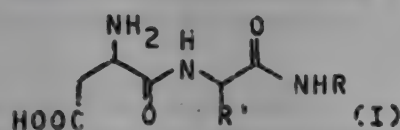
PFIZER INC 05.11.80-US-201745 (21.01.80-US-113800)
 B05 E19 (02.09.81) C07c-87/34 C07c-103/52 C07d-307/22 C07d-331/04 C07d-333/36 C07d-335/02

08.01.81 as 300066 (1248KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

L-Aspartyl-D-amino acid dipeptide amides of formula (I) and their cationic and acid-addn. salts are new. In (I), R' is Me, Et, nPr or iPr; R is fenchyl, diisopropylcarbinyl, d-methyl-t-butylcarbinyl, d-ethyl-t-butylcarbinyl, di-t-butylcarbinyl, 2-methylthio-2,4-dimethylpentan-3-yl or a gp. of formulae (II)-(VIII); at least one of R3-R6 is 1-4C alkyl and the others are H or 1-4C alkyl; X is O, S, SO, SO2, CO or CH(OH); m is 0-4; n and p are each 0-3 with n+p being not greater than 3; the total no. of C atoms in R3-R6 is not greater than 6, and when both R3 and R4 or R5 and R6 are alkyl, they are Me or Et.

One of R7-R9 is 1-4C alkyl and the remainder are H or 1-4C alkyl, with the total no. of C atoms in R7-R9 being not greater than 6; R12 and R13 are Me or Et, or R12 is H and R13 is 1-4C alkyl; Z is O or NH; t is 1 or 2; w is 1-4; R14 and R16 are 1-4C alkyl; R15 is H, OH, Me or Et; the total no. of C atoms in R14-R16 is not greater than 6, and when both R14 and R15 are alkyl, they are Me or Et; R17 and R19 are 1-4C alkyl; R18 and R20 are H, Me or Et; A' is OH and A is H, OH or Me, or A' and A together form CH2-O-CO, CH2-NH-CO, O-CO-CH2, NH-CO-CH2, O-CO, NH-CO or O-CO-O; and the total no. of C atoms in R17-R20 is not greater than 6 and when both of R17 and R18 or R19 and R20 are alkyl, they are Me or Et.

Cpds. (I) have high potency as sweeteners and are free from undesirable flavour qualities at conventional use levels. (184pp)



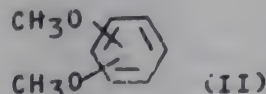
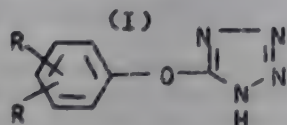
ELIL ★ D13 66394 D/37 ★ EP --34-925
Dihydroxyphenoxytetrazole derivs. - are artificial sweeteners

ELI LILLY & CO 22.02.80-US-123859
 B03 E13 (02.09.81) A231-01/23 C07d-257/04

19.02.81 as 300696 (916RH) (E) US3597234 US3515727 US3294551 US4154862 E(AT BE CH DE FR GB IT LI LU NL SE)

Dihydroxyphenoxytetrazole derivs. of the formula (I) and their salts are new, (where R is OH). (I) are artificial sweeteners.

(I) (where R is CH3O) may be prepd. by reacting (II) with (1) Et3N and BrCN and then (2) NaN3. (I)(R is CH3O) may then be demethylated to give (I)(R is OH). Demethylation may be done with pyridine HCl, BBr3, HBr in acetic acid, LiI and collidine or with NaCN in dimethylsulphoxide. Specifically claimed cpds. are (I) where the hydroxy gps. are in the 2,3 or 3,4 or 3,5 positions of the phenoxy gp. (30pp)



NEST ★ D13 66425 D/37 ★ FR 2474-830
Treating extracts of roasted prods. other than coffee - with fine
ligneous adsorbent to remove bitterness

SOC PROD NESTLE SA 06.02.80-CH-000929

(07.08.81) A231-01/*

21.01.81 as 000105 (597BZ)

The process comprises contacting the extract with a ligneous adsorbent of vegetable origin in finely divided form followed by sepn. of the adsorbent.

Pref. roasted prods. are chicory, caramel and cereals. A preferred adsorbent is carob bean pod particles, esp. desugared. The adsorbent is pref. pre-treated by acid washing and/or steam entrainment. The particles are pref. 0.3-5 mm size. The contacting is pref. at 10-60 deg.C. for 5-60 min using a dissolve solids/adsorbent ratio of 0.5-10. The contact is pref. by putting the adsorbent in suspension or by passing the extract through a column of the adsorbent. In a pref. process, the extract is first steam treated to remove the flavours which are recombined with the extract after the treatment. Also, any suspended solids in the extract are first removed and are recombined with the extract after the treatment. After the treatment, the adsorbent is pref. washed with water not above 60 deg. C and the rinse is combined with the extract.

The extract is used in instant drinks or as flavouring and/or colouring agent in food preps. The process removes bitterness and other undesirable tastes without adverse effect on the quality of prod. (11pp)

LAGU- ★ D13 66435 D/37 ★ FR 2474-882

Multiple effect evapn. for conc. liq. plus air heating - supplies condensate to heat exchangers in series to preheat liq. and air

LAGUILHARRE SA 04.02.80-LU-082130

(07.08.81) A23c-01/12 B01d-01/26

19.11.80 as 024565 (448BZ)

A process and an installation for the evaporative concn. of a cold liq., e.g. a milk prod., and the simultaneous preheating of a fluid in circulation, e.g. air for a hot air dryer. The installation comprises a multiple effect evaporator in which vapour produced in one effect is used to produce evaporative heat in the next effect. Vapour/condensate from at least one effect is used to preheat the circulating fluid.

All or part of the condensate remaining after vapour/condensate has been employed to warm the circulating fluid is now used to preheat the cold liq. to be evaporated. This condensate is desirably premixed with all or part of the condensate draining from the various effects and all or part of condensate from the final effect. The condensate from at least one effect is passed through a first heat exchanger to heat the circulated fluid esp. air. Then through a second, indirect heat exchanger in which liq. to be evaporated, esp. skimmed milk, is preheated. Condensate is pref. drained from the final effect, optionally via a buffer tank, into the line connecting the first, indirect heat exchanger to the second.

Used partic. for concn. of skimmed milk by evapn., hot air being produced simultaneously for spray-drying the conc. skimmed milk. (14pp)

BRVI- D13 45032 C/25 = GB 1597-467

Removal of water from aq. acetic acid solns. etc. - by hydrate formation then fractional removal of water contg. materials

BRIT VINEGARS LTD 26.05.77-GB-022282 (05.09.75-GB-036629)

E17 (09.09.81) *US4207-351 + B01d-09/04 C12j-01

18.05.78 as ----- Add to 1535336 (931AS)

Water is removed from an aq. soln. by contacting with a hydrate-forming fluid at a temp. less than the max. temp. at which the fluid forms a solid hydrate in the presence of the soln., so as to form a magma. The magma is then sublimed and/or evaporated to separate the conc. aq. soln. from part of the constituent of the solid hydrate, then recovering it.

Pref. the solid hydrate is decomposed into ice and hydrate forming fluid vapour by increasing the temp. and/or reducing the pressure, such that the concn. soln. is volatilised and the ice remains solid in the residual magma.

The process is esp. used for aq. solns. of acetic acid in the prodn. of vinegars. (6pp)

USDC D13 87825 A/40 = GB 1597-550

Precooked potatoes for supply to restaurants etc. - can be preserved by freezing and retain characteristics of freshly cooked prodn.

US SEC OF COMMERCE 03.06.77-US-803193

(09.09.81) *BE-867-655 A231-01/21

30.05.78 as 023999 (931JB)

Pre-cooked potatoes are prepd. by washing raw whole potatoes and subjecting them to 2 partial cooking stages using steam or hot water as the cooking medium for both stages.

Either of the stages is at a temp. greater than that at which sloughing of the potato surface would occur if they were cooked to their centres; and the other stage is at a lower temp. If a different cooking medium is used for each of the stages, both stages are at above the sloughing temp., then the cooked potatoes are heated in air.

The finished-baked prod. has the characteristics of a freshly

baked potato, but can be prepd. in a much shorter time. (9pp)

NEST D13 76255 A/43 = GB 1597-687
Cryogenic desiccation of a product by hyper-frequencies - utilises a support which absorbs microwaves and is partially an electrical conductor, used e.g. for drying frozen coffee extract

SOC PROD NESTLE SA 27.04.77-CH-005206

J08 Q76 + Q78 (09.09.81) *BE-866-046 F26b-05/06 F26b-23/08
18.04.78 as 015161 (1376JB)

During freeze-drying using microwaves the product to be dried is supported on a support which is transparent to microwaves and is covered with material which partly conducts electricity.

The support is pref. covered in carbon and glass fibres. Freeze-drying time is reduced. (3pp)

FIRE D13 82136 A/46 = GB 1597-698
Poly-organo-phosphazene(s) contg. chromophore radicals - as food colourings, coloured fibres, coloured films for photography, colour-coded pills

FIRESTONE TIRE & RUBBER 12.05.77-US-796073

A26 F06 G06 (09.09.81) *BE-866-972 C08g-79/02

11.05.78 as 018996 (965PW)

New poly(organo-phosphazene) contains at least some mixt. of formula $-(N:P(X)(R))_n-$ or $-(N:P(R)_2)_n-(HX)$. X is a chromophoric gp. R is an organo substit. The number of units is 250-20000. The ratio X:R is 1:1-15000. Pref. R is alkoxy, aryloxy, (di)alkylamino, or (di)arylamino, where the alkyl gps. are 1-5C and the aryl is (substd.) phenyl, R is esp. MeO, EtO, propoxy, (iso)butoxy, (m)ethylamino, propylamino, butylamino, phenylamino, trifluoroethoxy or piperidino. X is pref. a chromophoric gp. derived from an azo, nitro, ketone amine, anthraquinone, acridine, TPM, oxazine, phthalocyanine, indogoid or sulphur dye.

(I) is claimed for use in colouring polymers and foodstuffs. (8pp)

PROC D13 82084 A/46 = GB 1597-783
Modified soya protein prepn. by heating soya in aq. alkali - used as binder in textured protein food products

PROCTER & GAMBLE CO 09.05.77-US-795338

(09.09.81) *BE-866-830 + C07g-07

08.05.78 as 018246 (931AT)

A modified soy protein material is prepd. by heating an aq. soln. of soybean proteinaceous material for 15-60 mins. (pref. 30-45 mins) at pH 7.5-9.5 and 60-85 deg.C.

Pref. the proteinaceous material is defatted soybean meal or flour, or soy isolate having a ratio of water to material of 10-20:1, or a soy concentrate having a ratio of water to concentrate of 25-35:1. The prepn. comprises the additional steps of isolating the modified material from the soln., and adjusting its pH from 6.5 to 7.0.

The prod. is esp. used as a meat analogue, and as a soy protein binder at the acceptable meat flavour range w.r.t. the pH, without the use of leavening acids. (7pp)

LOTT ★ D13 86498 D/37 ★ GB 2070-407
Chewing gum mfr. in one step - in which all ingredients are mixed together under pressure

LOTTE KK 03.03.80-JP-025210

A97 (09.09.81) A23g-03/30

21.07.80 as 023769 (955BZ)

In the prepn. of chewing gum, all the usual gum base materials including natural resin, vinyl acetate resin, polyisobutylene, ester gum, emulsifier, filler, etc. and the usual additives, e.g. sucrose, glucose, starch hydrolysate, artificial sweetener, flavour, colourant, etc. are kneaded together under pressure in a single step.

The press is pref. 4-10, esp. 6-8 kg per sq. cm. The mixing time is typically 0-15 mins. and the temp. reached is 50-60 deg.C. Mixing may be carried out in conventional appts. e.g. Banbury mixer, pressure type kneader, etc. Pref. addn. of volatile flavours is delayed until only about 1 minute of mixing time remains.

The mixing process is complete in a short time, and requires only simple appts. The temp. remains low, so degradation of gum ingredients is avoided. (10pp)

WIDM ★ D13 86501 D/37 ★ GB 2070-411
Shelling nuts esp. cashew nuts by cutting longitudinal grooves - on aligned nuts then splitting by wedges

WIDMER & ERNST AG 27.02.80-CH-001557

(09.09.81) A23n-05

08.07.80 as 022286 (295BZ)

Nuts are oriented by passing along a vibrating chute and are then gripped between a pair conveyor belts. The belts carry the nuts to a grooving station where a pair of milling discs cut grooves of defined depth equal to or less than the shell thickness. At a downstream station wedges enter these grooves and split the shell to release the kernel.

Pref. the milling discs each have an associated knurled disc of

slightly smaller radius which bears against the surface of the shell to limit the depth of the groove. The milling discs are mounted on pivoting arms which move to conform to the profile of the nut.

The apparatus shells cashew nuts, macadamia nuts or coconuts. (17pp)

AMCY ★ D13 86504 D/37 ★ GB 2070-430
Bait for ants contg. pyrimidinyl-hydrazone insecticide - dissolved in fatty acid and edible oil

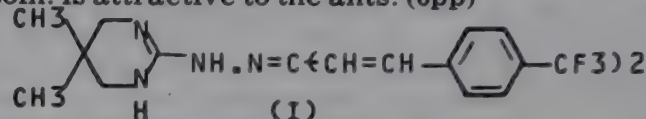
AMERICAN CYANAMID CO 28.02.80-US-125592

C02 (09.09.81) A01n-25/02

27.02.81 as 106298 (1251KB)

A compsn. comprises a soln. of the insecticide (I) in (a) at least one fatty acid (II) and (b), at least one edible oil (III). (II) is oleic, linoleic, linolenic and/or stearic acids, and (III) is soyabean oil (crude or once- or twice-refined), cottonseed, corn, coconut, olive, palm, tall and/or peanut oils. Pref. solns. contain 1-10 wt.% (I); 11-20 wt.% (II) and 70-98 wt.% (III). They are made by dissolving (I) in (II) at 30-80 deg.C then adding (III) or by dissolving (I) in a pre-formed mixt. of (II) and (III) at 30-80 deg.C.

The solns. are useful for controlling ants (both agricultural and domestic pests), e.g. the fire ants *Solenopsis invicta* and *S. richteri*. (I) are readily soluble in (II), and when combined with (III) the soln. is attractive to the ants. (6pp)



VICS ★ D13 86506 D/37 ★ GB 2070-449
Milk homogenisation by passing between ball and seat - with adjustable restrainer limiting homogenisation aperture

VICKERS LTD 23.02.81-GB-005666 (28.02.80-GB-006749)

(09.09.81) B01f-05/08

23.02.81 as 005666 (295KB)

Milk is pumped through the axial bore of a tube whose downstream end defines an annular seat. A ball is positioned close to this seat and is restrained by a plunger which can be moved to adjust the spacing between the ball and seat. Milk passes through the space and becomes homogenised. It is discharged via a transverse bore. The plunger is non-compressible but is contacted by a resilient member against which an adjustment screw bears.

The appts. homogenises milk prior to analysis e.g. for fat content. (6pp)

SOLL ★ D13 86521 D/37 ★ GB 2070-501
Making uniformly sized confections, e.g. chocolates - by spreading molten blob into contact with annular mould

SOLLICH GMBH R CO 29.02.80-GB-006958

A88 (09.09.81) B29c-03

29.02.80 as 006958 (295HM)

Uniformly sized confections are formed by depositing blobs of a flowable confectionary substance onto a surface. Each blob is surrounded by an annular mould spaced from the blob. Pressure is exerted on the blob to cause it to spread out into contact with the mould. The blob is permitted to set and is sepd. from the mould. Pref. the mould has a non-stick coating such as PTFE to facilitate the sepn. Pref. the blob is cooled by the forced flow of a coolant through passages in both the surface and the mould.

The method is used to produce confectionary items on which are deposited an additive such as nuts, raisins, toasted flakes or crokank pieces. Pref. the additives are deposited on top of the blob prior to spreading. (6pp)

TOAG ★ D13 86605 D/37 ★ J5 6061-982
Compsn. for maintaining freshness of food - comprising oxygen absorbing agent, hygroscopic or deliquescent cpd. acidic in aq. soln., and (bi) carbonate

TOA GOSSEI CHEM IND LTD 22.10.79-JP-135120

E37 (E13 E14) (27.05.81) A231-03/34

22.10.79 as 135120 (42AS)

Compsn. (I) composed of oxygen-absorbing agent (II), hygroscopic or deliquescent cpd. (III) which is acidic in aq. soln. and carbonate (IV) or bicarbonate (V) is new.

(I) can prevent both decomposition and decolorisation of food, because (I) absorbs oxygen and generates carbon dioxide which prevents the breeding of various germs and keeps the freshness of food.

Examples of (II) are reduced iron powder, ferrous sulphate, ferrous oxide, iron carbide, ascorbic acid, catechol, pyrogallol, etc. As (III), anhydrous phosphoric acid, sulphur trioxide, halides of iron, cobalt, nickel, zinc, aluminium, etc. cobalt acetate, etc. are used. (IV) and (V) are lithium carbonate, sodium carbonate, magnesium carbonate, sodium bicarbonate, lithium bicarbonate, etc. Molar ratios of (III) to (IV) or (V), and of (IV) or (V) to (I) are 0.03-2, and 0.01-6, respectively. Such values are preferred.

diatomite, activated clay, etc. in amts. of 0.001-10 pts.wt. per 1 pt.wt. of the mixt. of (II), (III) and (IV) or (V) is pref. added. (6pp)

NISO ★ D13 66819 D/37 ★ J5 6092-740
 Sugarless candy mfr. - from mixt. of maltose, cyclodextrin, oligo:saccharide and minor amt. of glucose
NIPPON SHOKUHIN KAK KK(SHIN-) 26.12.79-JP-168239
(27.07.81) A23g-03
 26.12.79 as 168239 (5DJ)

The method is characterised by using the mixt. composed of 40-75% (50-70)% of maltose, 0.5-10 (0.5-3)% of cyclodextrin, 20-50 (25-40)% of oligosaccharide and below 5% of glucose, as the starting material.

Maltose gives mild taste and flavour and improves the transparency and non-hygroscopicity of obtained candy. Cyclodextrin improves the non-hygroscopic property of candy synergically with other components. Oligosaccharide gives proper viscosity to the solution, improves the moulding property and the form-holding property of the candy and prevents the crystallisation of maltose. It is desirable to use the mixt. free of glucose, but the formation of some glucose in preparing the sugar soln. is inevitable. Thus it is necessary to suppress the formation of glucose as little as possible and at most below 5%.

The sugarless candy which is low sweet, low hygroscopic and excellent in transparency and has mild taste and flavour, can be obtd. (7pp)

RIKV ★ D13 66820 D/37 ★ J5 6092-746
 Mulberry leaf powder for artificial feed for silkworms - obtd. by treating raw leaves with plant sterin and (poly)phenolic acid and/or (poly)phenol:aldehyde
RIKEN VITAMIN CO LTD 27.12.79-JP-170779
C03 (27.07.81) A23k-01/18
 27.12.79 as 170779 (5HM)

Mulberry leaf powder is obtd. by treating raw mulberry leaf with (a) plant sterin and if necessary (b) at least 1 of (poly)phenolic acid and (poly)phenolaldehyde.

The plant sterin is beta-sitosterol, stigmasterol, campesterol, brassicasterol, etc. and is used in amt. 0.5-5% based on raw mulberry leaf. The cpd. (b) is protocatechuic acid, gallic acid, p-hydroxy-benzolc acid, protocatechuic aldehyde, gallic aldehyde, -phydroloxybenzaldehyde, vanillin, etc. and it is used in amt. 0.2-2.5% based on raw mulberry leaf.

Recently artificial feed has been used for silkworm culture and all artificial feeds contain mulberry leaf powder which is obtd. by crying raw mulberry leaf and pulverising it. Though the results with artificial feed is equal to that with raw mulberry leaf in infant period, it is inferior in adult period. This is because effective components in mulberry leaf are vaporised and/or decomposed during drying and pulverising. By adding plant sterin to raw mulberry leaf prior to drying the loss of effective components during drying and pulverising is prevented and by adding cpd. (b) the improving effect is further increased. The artificial feed contg. thus obtd. mulberry leaf powder has equal effect to raw mulberry leaf even in adult period. The mulberry leaf powder content in artificial feed can be decreased. (4pp)

NORQ ★ D13 67122 D/37 ★ J5 6095-182
 Catechin cpds. prepn. - by dissolving tannin, in water, adding aq. caffeine soln. and ion exchange sepg.
NORIINSHO KK 00.00.80-JP-178076 (07.02.79-JP-012212)
B02 E13 (01.08.81) C07d-311/62

07.02.79 as 178076 /80 Div.ex 12212/79 (108WB)
 Prepn. of catechins comprises dissolving tannin substance obtd. by extracting tea leaves with hot water or organic solvent, in water to prepare aq. soln.; adding to this an aq. soln. of caffeine to separate into the free type catechin (epicatechin, epigallocatechin) and ester type catechin (epicatechingallate, epigallocatechingallate); removing caffeine; and sepg. using cephadex column to obtain epicatechin, epicatechin gallate, epigallo catechin and epigallo catechin gallate; and opt. crystallising each component.

Four kinds of catechins can thus be obtd. by a relatively simple method. They can be obtd. continuously and in large amt. They are useful as flavour and anti-virus agents. (8pp)

HIRA/ D13 75906 B/42 = J8 1035-128
 High quality, rice powder-contg. filament food prodn. - from corn powder, rice powder, aq. chlorella extract soln. and emulsifying agent(s)

HIRANUMA Y 23.02.78-JP-019103
(14.08.81) *J54113-453 A23l-01/16

23.02.78 as 019103 (15DS)
 A raw material, consisting of 95-45 wt.% corn powder(s), involving wheat flour and/or buckwheat flour, and 5-55 wt.% rice powders is blended with 0.1-8.5 wt.% chlorella extract soln. with hot water and 0.2-1wt.% emulsifying agent(s) involving a fatty

acid ester of glycerine, cane sugar and/or fatt sorbitan; and the resulting mixt. is homogeneously mixed, kneaded, rolled and cut.

The raw material may contain sodium chloride, propylene-glycol, glycine, ethanol, polyphosphate salt and/or vitamins, but it is entirely free from a tackifying agent such as gluten or natural gum.

The process is used for producing Japanese Udon or Soba filament food, Chinese filament food, macaroni and spaghetti. (J54113453) (15pp)

YEDA D13 07567 A/04 = J8 1035-155
 Production of glycerine and protein prod.

YEDA RES & DEV CO LTD 06.06.76-IL-049726

C03 E17 + P13 (14.08.81) *J52148-692 C12p-21 C12r-01/89
 + C12p-07/20

03.06.77 as 064969 (15DJ)

Prod. of glycerine and protein comprises culturing *Dunaliella salina*, *Dunaliella primolecta*, *Dunaliella tertiolecta* or *Dunaliella peircei* in a culture medium contg. 1.5 moles or more of sodium chloride and minor amounts of magnesium, potassium, calcium, iron, sulphate ion, nitrate ion and phosphate ion until the growth of the alga reaches a maximum conc., then transferring the alga to a second culture medium contg. 3.0 moles of sodium chloride and a small amt. of the above mentioned mineral sources, removing the alga from the second culture medium with a centrifugal machine and firstly collecting glycerine from it and secondly a residue having a high content of protein.

The protein is produced in high yield and is used as a cattle feed. (J52148692) (7pp)

CALP. D13 65589 A/37 = J8 1035-408
 Stable fermented milk beverage prepn. - comprises dissolving milk protein to low lightness and then forming milk protein particles at higher pH

CALPIS FOOD IND 25.02.77-JP-019165

(17.08.81) *DE2808-013 A23c-09/12

25.02.77 as 019165 (200BZ)

Fermented milk beverage is prepd. by (i) dissolving milk protein to an L-value, expressing degree of lightness, less than 35 (pref. less than 30) by heating fermented milk, which is diluted with water as necessary, contains 0.5-2.5% non-fat milk solids and has pH 3-3.45, above 60 deg.C and (ii) forming milk protein particles having L-value 40-57 (40-55) by adding a pH-control agent to set pH 3.5-3.8 and heating above 60 deg.C.

The prod. is ready for immediate consumption. The dispersion of milk protein and the attractive milky whiteness are stable over a long period, e.g. 3-6 months at room temp. after pasteurising or sterilising and bottling. The beverage can be prepd. from a non-homogenised fermented milk. (J53104765) (5pp)

DEUS D13 43477 Y/25 = J8 1035-412
 Treating mouldy foodstuffs to neutralise toxic products - with ethylene oxide and/or methyl formate and at least 10 per cent water

DEUTSCHE GES SCHADEL 20.12.75-DE-557599

E13 + P34 P35 (E17) (17.08.81) *BE-849-588 A23k-01 A23l-01

10.11.76 as 135115 (597KB)

A process for neutralising the toxic products of the metabolism of moulds in substances comprises treating the moist substances contg. at least 10(pref. 10-16)% water with ethylene oxide and/or methyl formate.

The process is used to treat mouldy food to render it fit for human or animal consumption. It is known to treat mouldy peanuts with ethylene oxide and/or methyl formate to neutralise the mycotoxins in particular the aflatoxins. The presence of the water makes the process very much more effective. (J52079023) (2pp)

AJIN D13 65619 B/36 = J8 1035-419
 Improving the quality of denatured defatted soybean protein - by forming aq. slurry, extruding, pulverising the protein granules and passing through a pipe at a specified temp.

AJINOMOTO KK 10.01.78-JP-001454

(17.08.81) *J54095-761 A23l-01/20

10.01.78 as 001454 (5HM)

The method comprises (1) extruding the aq. slurry of the defatted soy bean which is previously denatured with heat and/or alcohol, in pipe line through orifice under pressure, (2) thus pulverising the protein granules of defatted soy bean and (3) flow flowing it at below 110 deg.C through the pipe line.

The water solubility of denatured soy bean protein can be restored by treating the aq. slurry of denatured defatted soy bean under moderate condition and from it the separated soy bean protein can be obtd. with a yield equal to that attained by undenatured defatted soy bean. Excellent gel property can be attained.

Denatured defatted soy bean is made aq. slurry with 4-20 times amt. of water and it is desirable to regulate pH of the aq. slurry to

6.5-9.0 favourably 7.0-8.0 with edible alkali for attaining better quality-improving effect. It is also desirable to add reducing agent such as sodium bisulphite, etc. or surfactant such as sucrose fatty acid ester, lecithin, etc. (J54095761) (5pp)

NEST D13 50254 U/35 = J8 1035-422
Evenly-coloured powdered food compsns - by spreading contained water of hydration through mass by heating
SOC PROD NESTLE SA 14.03.72-CH-003686
(17.08.81) *BE-796-157 A231-01/27 A231-02 + C13f-03

13.03.73 as 029354 (RH)

Process for making a powdered coloured food prod., by heating a powdered mixt., contg. at least 1 dye and one substance of which at least some is a crystalline hydrate, so that at least some of the water of crystn., is released, this water being at least 0.1 wt.% of the mixture, and the mixture assumes an even colour.

Heating is pref. at 65-80 deg.C. Pref. hydrated cpd. is a sugar, citrate or salt. Pref. food prod. is 70-90% of the compsn. (J48099350) (4pp)

SANW. D13 62511 B/34 = J8 1035-425
Paste food prepn. - involves use of processed starch and waxy starch mixed in presence of fatty acid mono-glyceride
SANWA SHOJI KK 26.12.77-JP-157044
(17.08.81) *J54089-062 A231-01/32

26.12.77 as 157044 (5AT)

Method comprises adding a starch mixt. obtd. by mixing 100 pts. of oil and fat-processed starch and 10-80 pt. of waxy starch in the presence of fatty acid monoglyceride, in the material for pasty food.

By the starch mixt. oil and fat-processed starch and waxy starch act synergetically and it serves as the excellent filler for pasty food. Foodstuffs which is equal to high grade pasty food in texture, appearance, taste, resistance to tendencies to revert to prior state on freeze-preservation, etc. can be obtd. (J54089062) (4pp)

RIKA D13 83506 B/46 = J8 1035-678
Selectively benzylated sugar derivs. prodn. - from lower alkyl gluco:pyranoside, mannopyranoside or galacto:pyranoside
RIKAGAKU KENKYUSHO 30.03.78-JP-037970
B03 E13 (19.08.81) *J54130-512 C07h-15/10

30.03.78 as 037970 (69DJ)

Method comprises treating a lower alkylglucopyranoside with a bis(tri lower alkyl-stannous) oxide to give a lower alkyl tri-lower alkyl stannous alkoxy deriv., subjecting the resultant deriv. to benzylation with a benzyl halide in the presence of the hydrogen halide collector to give a lower alkyl 2,6-di-O-aryl- 3,4-di-O-benzylglucopyranoside in good yield, and subjecting the resultant substance to dearylation to give a lower alkyl 3,4-di-O-benzylglucopyranoside.

The sugar derivs. are useful as intermediates for the synthesis of branched oligosaccharides, food additives as sugar esters, intermediates for synthesis of various antibiotics or intermediates for the synthesis of macrolide cpds. (J54130512) (5pp)

WESS ★ D13 D/37 ★PT--68-622
Machine continuously sepg. grape pulp from skin and pips - has hammer heads mounted on rotor rotating at higher speed than surrounding sieving basket
WESTFALIA SEPARATOR AG 04.03.80-DE-008132
(D16) (19.08.81) A23n

TEKH= ★ D13 67285 D/37 ★SU-789-390
Wet-process phosphoric acid prodn. - by degradation of heat-treated ore with sulphuric acid with recycle of waste oxide(s) and use of by/products of fertiliser and feedstuffs
TEKHENERGOKHIMPROM 19.06.79-SU-779107
C03 (C04) (23.12.80) C01b-25/22

19.06.79 as 779107 (815GW)

P-contg. fertiliser and feedstuff are obtd. with wet-process phosphoric acid from a phosphate ore in a closed cycle in which phosphate ore is heated at 100-200 deg. above its m.pt. i.e. at 1100-1300 deg., then degraded with sulphuric acid to give phosphate used partly to produce superphosphate and ammophos, and partly to give phosphoric acid, with phosphogypsum as a by-product. The latter is converted to lime and sulphur oxides, which are dissolved in water and recycled. The process results in phosphoric acid with a high degree of purity, reduced foaming during the acid degradation stage, and utilisation of all the by-products obtd. The F content of the phosphoric acid is only 0.005%, compared to 1.0-1.5% in the previous method, and metals are entirely absent. As a result of reduced foaming, the throughput is increased 1.5 times. (3pp)

IRKU ★ D13 67884 D/37 ★SU-789-516
Ortho-di:hydro-phenylalanine prepn. - from pyrocatechol and amino-acetic acid using acetone extract of foodstuff waste as source of phenoloxydase reagent

BIOL RES INST IRKUT 12.12.78-SU-694783

E14 (30.12.80) C07c-101/72

12.12.78 as 694782 (114VE)

Prepn. of o-dihydroxyphenyl alanine (I) by treating pyrocatechol and aminoacetic acid with phenoloxydase is simplified using acetone extract of waste prod. from foodstuff industry (esp. Nitella, sunflower or potato) as phenoloxydase source. The reaction is carried out in acetone buffer at 22-26 deg. C.

In an example, 30g raw material are homogenised twice with 90ml acetic acid at minus 15-20 deg. C before filtering to give preparate yield (%): Nitella sp. 20-25; potato 20-25; sunflower 22-25.

The optimum prepn. conditions of 3,4-dihydroxyphenylalanine are pH 5-7, pyrocatechol: aminoacetic acid ratio 1:1-2, and preparate concn. 5-10 g/l. Bul.47/23.12.80. (2pp)

KHGE= ★ D13 67520 D/37 ★SU-789-706
Drinks coffee content determ. - by comparing optical density of sample and standard using UV radiation
KHARK GEN PROVISION 26.04.79-SU-761260
S03 (25.12.80) G01n-21/*

26.04.79 as 761260 (70WD)

The coffee contents in drinks is determined by diluting the sample with water and performing the analysis in parallel with a reference preparation. The analysis is accelerated and accuracy is improved by determining the optical density in the u.v. range at a wavelength of 270-300nm. If the drink to be analysed contain milk, the analysis must be preceded by extraction of fats and deposition of proteins.

The fats are extracted with hexane or petroleum ether in presence of trichloroacetic acid. The precipitated proteins are sepd. by filtration through two layers of an ordinary filter paper. Bul.47/23.12.80. (3pp)

UGLI= ★ D13 67538 D/37 ★SU-789-748
Determn. of ease of melting of cheese - by melting with hot water in rotating viscometer and measuring time taken to assume constant viscosity value

UGLICH BUTTER CHEES 06.04.79-SU-753263

S03 (23.12.80) A23c-19 G01n-33/04

06.04.79 as 753263 (29MI)

Method for determining the fusibility (meltability) of cheeses, principally the production of samples and their heat treatment, having reduced duration and increased accuracy, by grinding the sample and mixing with 1.5-2.0% of salt-melter. After heat-treating, the sample is mixed until it is completely molten. The meltability is determined as the time from the beginning of the melting until the sample has attained a constant viscosity value. The heating is done with hot water at 70-95 deg. C. Bul.47/23.12.80. (3pp)

PATE- D13 43990 A/24 = US RE30-722
Edible coating for ice cream white hardens to a shell - contains oil, sugar, and emulsifiers
PATENT TECHN INC 03.02.77-US-767291 (02.01.79-US-000542)

(25.08.81) *US4086-370 A23g-09/34

02.01.79 as 000542 Reissue of 4086370 (931JB)

An edible coating compsn. is a homogeneous blend which is fluid at room temp., and hardens as a brittle edible shell when applied to a frozen dessert (e.g. ice cream).

The compsn. comprises 44-53% refined edible oil which is liq. at 70 deg.F, 28-38% sugar, 0-9% milk solids, 4-10% corn syrup solids, 1.8-2.4% hard crystallised emulsifier and stearine, 0.5-1.2% moisture, and flavouring additives to balance. The emulsifier is a mono- and/or di-glyceride (pref. hard crystallised mono- and di-glycerides of m.pt. 140-145 deg.F).

The compsn. is prepd. by dispersing the micro-crystalline emulsifier and stearine in a liq. mixt. of oil, sugar, corn syrup solids and milk solids. (4pp)

HANL/ ★ D13 67722 D/37 ★US 4285-490
Preparation of beverage with solid component - using two telescoping cups, inner one holding solid component
HANLEY M W 21.12.79-US-106277

(25.08.81) A23g-09 B29c-06

21.12.79 as 106277 (295BZ)

A solid-liq. beverage is prepared in an apparatus which consists of a first cup suitable for being filled with a freezable, edible substance. The cup has a base at one end and is open at the opposite end. The base of this cup is mounted on a lid which fits a second cup. This fits over the open end of the first cup and has an open end which engages the lid when the two cups are assembled together.

Pref. both cups are frustoconical-shaped with the base of the

first cup being the smaller end.

The apparatus is used for preparing a beverage which includes a frozen product such as ice-cream. The apparatus provides a simple method of making these beverages so that they may be served as a convenience food. (5pp)

PEAN- ★ D13 67748 D/37 ★ US 4285-698
Assaying aflatoxin cpds. in peanuts - by extn. into di:chloromethane, forming deriv. with tri:fluoro-acetic acid, then high pressure liq. chromatography
PEANUTRES & TESTIN 28.04.80-US-144681
S03 (25.08.81) G01n-31/08 G01n-33/02

28.04.80 as 144681 (1251RH)
Peanuts etc. are analysed for presence of aflatoxins (I) by first mixing a paste of the ground nuts with methanol and water to form a slurry. The filtrate from this slurry is mixed with dichloromethane, the organic phase evaporated and the residue reacted with trifluoroacetic acid (TFA) to form derivatives of (I). The TFA is then evaporated, the residue mixed with THF-acetic acid soln. to form a mobile phase and this filtered through a mini-column, then injected into a high-pressure liq. chromatograph to separate individual (I), the concns. of which are measured.

Pref. 80:20 methanol-water is used in the first stage, and the filtered slurry can be combined with a salt (esp. Zn acetate) soln. The pref. mobile phase is 20% THF plus 80% of 1% acetic acid (by vol.).

The method is rapid (existing procedures take about 2.5 hr.) and can detect a total (I) level of 1ppb (3-5ppb in the known procedure). (6pp)

MITC/ ★ D13 67768 D/37 ★ US 4285-735
Fructose polymer extraction from dahlia tubers - by grinding and sepg. liq. phase
MITCHELL W A 10.03.80-US-128978
(25.08.81) C131-03

10.03.80 as 128978 (367AT)
Extraction of fructose polymers (mainly inulin and inulides) from dahlia tubers is effected by grinding the scrubbed tubers at 2-40 deg.C to a particle size of ca. 10 mesh, and sepg. the water solubles from the insoluble fibrous material within 10 min or less, pref. by centrifuging or pressing.

A fructose polymer concentrate with a solids content of 40-70% can be obtd. from the extract by boiling for 3-10 min, sepg. coagulated proteins by decanting or centrifuging, and conc. the clarified extract by evapn. at atmospheric or reduced pressure. A dry crystalline prod. can be obtd. by cooling the concentrate to 1-15 deg.C, seeding with inulin crystals, allowing the mixt. to crystalline for ca. 12 hr, removing mother liquors by centrifuging, and drying the prod. at 35-70 deg.C. (4pp)

GENO D13 27209 A/15 #US 4285-862
Protein isolate or micelle prepn. - from proteinaceous material, by extn. with solubilising salt soln. and pptn. by dilution (NL 3.4.78)

GENERAL FOODS LTD 30.09.76-CA-262397 (12.09.77-US-832036)
(25.08.81) *DE2742-129 A23j-01/12

03.10.79 as 081484 (+ 22.12.78-US-972202) C.i.p 4169090 (931JB)
An undenatured protein isolate prod. comprises 90wt.% of protein in the form of an amorphous protein mass formed by settling the solid phase from an aq. dispersion of protein micelles.

The micelles consist of homogeneous amphiphilic protein moieties formed from 1 or more plant protein source. The protein is determined by Kjeldahl nitrogen x 6.25. Pref. the amorphous protein mass is dried, and the plant protein source is derived from cereals, legumes and oil seeds.

The prod. has no lipid or lysinoalanine content, and the same lysine content as the storage protein in the source material. (11pp)

RALS ★ D13 67868 D/37 ★ US 4285-974
Liq. carbohydrate feed supplement (e.g. molasses) for cattle - contg. acidulated unsaponified fat as intake limiter to control consumption during self-feeding

RALSTON PURINA CO 10.12.79-US-101665 (09.11.77-US-849741)

C03 (25.08.81) A23k-01/02
10.12.79 as 101665 (+ 3.8.78-US-930787) (914RH)

A liq. feed supplement for cattle comprises (a) a liq. carbohydrate as feed supplement and (b) an intake-limiting amt. of an acidulated unsaponified fat chosen from coconut oil, corn oil, cottonseed oil, palm oil, palm kernel oil, soybean oil, tallow and grease, the fat having been acidulated at a temp. of at least 220 deg.F with an acid.

The compsn. can be used for efficient and economical self-feeding of cattle, since component (b) prevents excessive consumption of the supplement without the need for special

equipment to meter the supplement to the animal. (4pp)

KALS- ★ D13 67874 D/37 ★ US 4285-988
Homogeneous liq. flavouring and colouring - contg. lecithin and tartrate ester(s) of mono and di:glyceride(s) as vehicle
KALSEC INC 28.02.80-US-125425
(25.08.81) A231-01/22
28.02.80 as 125425 (955AT)

A homogeneous liq. condiment compsn. for colouring or flavouring foods or beverages contains (1) lecithin (2) tartaric acid esters of mono- and diglycerides, and (3) one or more edible flavourings or colourings. The wt. ratio of (1) plus (2) to (3) is at least 1:4.

The wt. ratio of (1) plus (2) to (3) is pref. between 1:3 and 10:1 esp. 1:1. The wt. ratio of (2) to (1) is 3:7 to 3:1, esp. 1:1. Component (3) is typically a spice or herb, an oleoresin e.g. of black pepper, an essential oil, or an colouring e.g. bixin, lycopene, capsanthin, beta-carotene etc. or any combination of these.

The compsn. is dispersible in both oil and water phases of a food. It can provide all the seasoning and colouring additives required in a food in a single compsn. It is stable indefinitely to oxidn. and sepn. of components. It has no functional effect on foods except the dispersion of the condiments and colours. (9pp)

COKE ★ D13 67875 D/37 ★ US 4285-982
Photostable anthocyanin pigment compsns. - contg. flavanoid cpds. as stabilisers
COCA-COLA CO 10.03.80-US-128463 (30.08.79-US-070971)
E24 (25.08.81) A231-01/27
10.03.80 as 128463 (367AT)

Photostable colourant compsns. comprise an anthocyanic pigment (I), i.e. an anthocyanin or anthocyanidin, in combination with a photoprotective agent (II) comprising a sulphonated polyhydroxyflavonol, a poly(hydroxyalkyl)flavonol, a sulphonated polyhydroxyflavone, a sulphonated polyhydroxyisoflavone or a sulphonated aurone. The (II): (I) molar ratio is at least 1:1 (esp. 5:1).

(I) is pref. cyanidin rutinoside (Ia), grape-skin colourant or apigeninidin chloride. (II) is pref. hydroxyethylrutin (IIa), apigenin sulphonate, biochanin A sulphonate, quercetin -5'-sulphonate, quercetin disulphonate, morin disulphonate or 4'-methoxyaurone mono- or disulphonate. The compsns. can also contain an acidulant, esp. citric or phosphoric acid.

The compsns. can be used to colour foodstuffs, esp. beverages or beverage syrups, concentrate or dry mixes. (8pp)

NORD- ★ D13 67876 D/37 ★ US 4285-983
Fixation of volatile flavouring agents - by encapsulation with starch hydrolysate
NORDA INC 02.05.79-US-035349
(25.08.81) A231-01/22
02.05.79 as 035349 (367BZ)

Volatile flavouring agents (acetaldehyde and/or essential oils) are fixed in a carrier matrix (starch hydrolysate with a DE of 28 or less) in the form of free-flowing dry particles by (a) forming the flavouring agent into an aq. soln. (for acetaldehyde) or o/w emulsion (for essential oils) to obtain an aq. liq. with a viscosity of 200 cP; (b) spraying the aq. liq. onto a bed of free-flowing carrier particles so that part of the carrier dissolves in the liq. droplets to form a satd. soln.; (c) allowing part of the water in the droplets to evaporate so that the carrier forms a continuous film on the droplets; (d) allowing the film to solidify; (e) separating the solidified particles from the carrier particles before the former have had time to agglomerate; and (f) drying the solidified particles to remove the rest of the water.

The process avoids use of elevated temps., thus avoiding flavour degradation. The product particles are oval to spheroidal beadlets with a high content of stably fixed flavouring agent (e.g. 4-10 wt.%). (10pp)

GIVA ★ D13 67877 D/37 ★ US 4285-984
Savoury flavouring of foods and drinks - using di:amino:alkane thiol(s), thioether(s) and thioester derivs.
GIVAUDAN CORP 17.06.77-CH-007462 (09.08.76-AT-005900)
E16 (D18) (25.08.81) A231-01/22

04.06.79 as 045523 (+ 2.8.77-US-821128) (955BZ)

A flavouring for foodstuffs contains 1 ppm - 10% of at least one pure cpd. of formula

R1R2N-A-S-R

where R1 and R2 are each 1-3C alkyl, A is 1-4C alkylene, R is H, methyl, ethyl, formyl, acetyl, propionyl or -A-NR1R2 or -S-A-NR1R2, and at least one other compatible flavouring ingredient.

The food to be flavoured contains 0.001-100, esp. 0.1-10 ppm of the cpds. The flavouring compsn. may be in soln., paste or powder form, and can contain conventional carriers, thickeners, spices, auxiliary ingredients, diluents, stabilisers, buffers etc.

The cpds. impart a roast, meat, cheese, fish, poultry,

vegetable or mushroom-like taste, and may be used in foods, luxury goods including tobacco, and drinks. (8pp)

SETO- D13 55639 D/31 = US 4285-986
Pure oligopeptide(s) prepn. from collagen - by removing hair and then heating with water under pressure

SETON CO 21.01.80-US-113694

A11 C03 (A97) (25.08.81) *GB2067-573 A23j-01/10

21.01.80 as 113694 (945JB)

Oligopeptides are prepd. by treating natural insoluble collagen with an aq. soln. of alkali metal hydroxide and opt. alkaline earth metal hydroxide in the presence of an agent to prevent overswelling. This removes hair and fat from the collagen.

Non-collagenous material is then removed by treatment with an aq. solvent soln. The collagen is neutralised then heated under pressure in the presence of water to hydrolyse polypeptide chains to oligopeptides.

Pure oligopeptides of mol. wt. 5000-20000 are recovered. They are partic. useful as a trophic agent for feeding animals. (4pp)

See Also

D15 SU-789422

D15 US4285821

D16 DD-148860

D16 J81035151

D16 SU-789577

D16 SU-789578

D16 SU-789579

D16 SU-789581

D14: FOODSTUFF MACHINERY

NIRO ★ D14 66590 D/37 ★ GB 2070-751

Drying powdered milk on vibrating bed - with multiple apertures introducing fluidising gas and advancing product along bed

NIRO ATOMIZER A/S 15.02.80-DK-000685

Q76 (09.09.81) B01j-08/40 F26b-17/26

10.02.81 as 003986 (295DJ)

A powdered product is loaded onto one end of a horizontal bed plate which has a series of transverse ridges penetrated by multiple punched apertures. A gas is blown through these apertures to fluidise the product and additionally the bed plate is vibrated mechanically. The product is advanced along the bed towards its discharge end by shaping the gas apertures to give a horizontal component to the gas flow.

Pref. each of the gas apertures comprises an incision with a portion of the bed depressed to give the required angle of the gas jet.

The appts. processes a particulate product and is especially suitable for drying milk powder. The gas jets advance a sticky product along the bed and also empty the apparatus on completion of operations. (8pp)

KDPO = ★ D14 67268 D/37 ★ SU -789-086

Automated green peas canning line - has button operated by/pass conveyor with receptacles fillable in turn by sequencing if max. throughput of main process line is exceeded

KRASD POLY(KDFO=) 14.02.78-SU-581423

T06 (23.12.80) A23b-07 G05d-27

14.02.78 as 581423 (840GW)

Automated line for canning green peas and includes a receiving bath, flotation washing machine, cleaning device, blanching unit, cooling and selection unit, inspection conveyor and canning units. The line load is stabilised and the quality of the produce is improved. By introducing a by-pass conveyor facility with storage receptacles which can be filled in turn at the push of a button, non-uniformity in arrival of the peas can be smoothed out. Bul. 47/23.12.80. (5pp)

AGRI = ★ D14 67546 D/37 ★ SU -791-367

Double-fan grinder for animal foodstuffs - has grating made as trough and surrounding grinding unit

AGRIC ELECTRIC 18.07.78-SU-645373

(30.12.80) A23n-17

18.07.78 as 645373 (29MI)

Double-fan grinder, for animal foodstuffs, with pneumatic

transport for the finished products, consists of body (1) with inlet and outlet pipes, inside which the fans (8) are installed down both sides of the grinding unit with gratings (6). Power consumption during the conveying of the material is reduced by making the grating (6) as a trough which surrounds the grinding unit plates fastened cantilever fashion on their end; the free ends of the plates are disposed in the discharge pipe. The body also has partitions (9) which extend up to the plates (10) being positioned between the grinding unit and the fans. (3pp Dwg. No.1)

AGRI = ★ D14

D14

67547 D/37 ★ SU -791-369

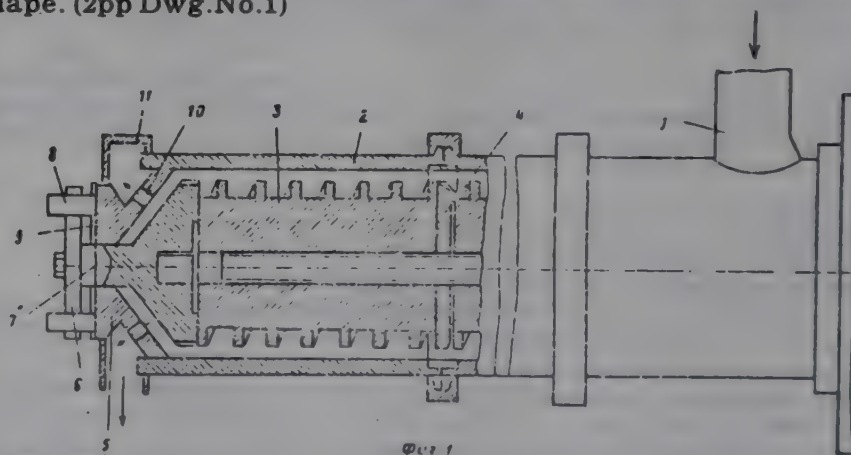
Extruder for producing animal foodstuffs - has screw for extruding material and bush with rollers moving round its sinusoidal edge

AGRIC ELECTRIC RES 12.06.79-SU-777865

(30.12.80) A23n-17

12.06.79 as 777865 (29MI)

Extruder for the production of animal foodstuffs, has body (2) with feed pipe (1), inside which is a screw (3) and a device for altering the pressure inside the body. This consists of a bush (5) mounted in the body so that it is capable of being moved axially. The quality of the resulting feedstuff is increased, as a result of intensifying the thermodynamic effects on it, and the productivity is increased, by making the drive to move the bushing as a sun-wheel (6) fastened at the exit end of the screw, plus rollers (8) connected to the sun-wheel, so that they roll over the outer face of the bush, the curve of which has a sinusoidal shape. (2pp Dwg.No.1)



NEAR/ ★ D14

D14

67747 D/37 ★ US 4285-697

Food package contg. spoilage indicator - comprising liq. crystal in carrier tape semipermeable to gases formed during spoilage

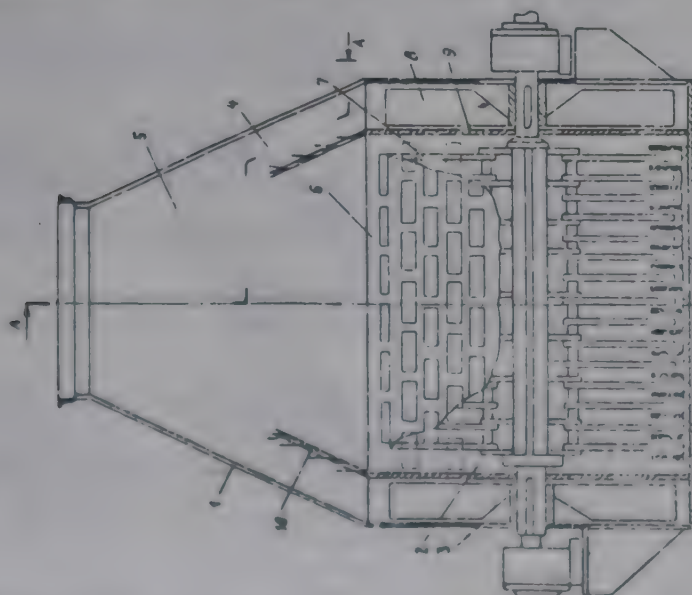
NEARY MP 26.09.78-US-945881

E15 S03 (25.08.81) C09k-03/34 G01n-31/22 G01n-33/02

26.09.78 as 945881 (1251DH)

Food package contains, in contact with the food, a spoilage indicator consisting of a liq. crystal (I) in a plastic tape carrier, part at least of which is semi-permeable to gases generated during food spoilage. (I) are Z- chloride, -bromide, -erucate, -oleyl carbonate, -erucyl carbonate, or -oleate where Z is cholesteryl or cholestaryl.

A small amt. of (I), e.g. 5x5x0.05 mm, is deposited on the carrier, then covered with another piece of semi-permeable membrane, and the edges sealed. This device is placed in the food container. Suitable membranes are of protein, cellulose or carbohydrate, and opt. indicators are dissolved in (I) to form micellar solns. (I) change colour in contact with the gases (mesomeric to liq. phase transition), so providing a visible indication of spoilage. (2pp)



D15: WATER TREATMENT

ALV/ ★ D15 D/37 ★ BR 8102-769
 lastics bio-digester
 SALVETTI M G 30.04.81-BR-002769
 A35 (D16) (18.08.81) C02f-11/04

UML/ ★ D15 D/37 ★ CS 7900-420
 thermal elimination of plating sludge - formed during plating or metal surface treatment
 RUMLV 18.01.79-CS-000420
 M11 (30.06.81) C02f-11/10

ERT/ ★ D15 D/37 ★ CS 7902-281
 waste liq. oxygen degrading system - for oxygen contg. high concn. of hydrocarbons
 VERTALS 04.04.79-CS-002281
 J07 Q75 (30.06.81) F25j-03/08

LACK/ ★ D15 D/37 ★ CS 7903-476
 two-stage sepn. of suspension - during water purificn. by coagulation process
 MACKRLE S 21.05.79-CS-003476
 (30.06.81) C02f-03/04

AMI/ ★ D15 D/37 ★ CS 7905-130
 electromagnetic coagulator
 RAMIK P 23.07.79-CS-005130
 J01 X25 (30.06.81) C02f-01/48

ISK/ ★ D15 D/37 ★ CS 7905-476
 bar deposits elimination
 LISKAK 10.08.79-CS-005476
 H04 (30.06.81) C02f-11/14 C10g-17

IED/ ★ D15 D/37 ★ CS 7908-566
 industrial aq. effluents continuous purificn.
 BIEDERMANN M 10.12.79-CS-008566
 (30.06.81) C02f-01/28

NECE/ ★ D15 D/37 ★ CS 7908-869
 Continuous elimination of impurities from water and aq. systems
 NECESANY F 17.12.79-CS-008869
 (30.06.81) C02f-01/24

VASS- ★ D15 66151 D/37 ★ DD -148-925
 surface sand in seepage tank - cleaned by jets of water from inkinable scraper dragged along sand surface
 VEB WASSERVERSOR AB 04.02.80-DD-218865
 (17.06.81) B01d-23/24
 4.02.80 as 218865 (1480HM)

The soiled surface layer of sand in a seepage tank is cleaned without interrupting filtering by dragging along the sand surface and under the water surface a flat appts. which pumps multiple jets of water to break up the sand surface and create turbulence or sepg. sand from soil. The appts. has three hollow compartments, and the disturbed sand is allowed to settle in an internal space between the rear two compartments, with the muddy water contg. the lighter soil extracted upwards into a pipe discharging to the exterior. The compartments can be partly flooded to produce correct distillation of pressure on the sand surface, and at the end of a cleaning run are lightened to float to the tank surface before returning to their initial position.

The appts. is simple, has few moving parts and is thus economical in energy consumption and easy to maintain. (8pp)

KURZ/ ★ D15 66154 D/37 ★ DD -148-944
 Biochemical treatment plant for liq. animal waste - combines all basins in one compact building
 KURZE E 15.01.79-DD-210470
 (17.06.81) C02f-03/30 C02f-09
 15.01.79 as 210479 (39HM)

Plant for the biochemical treatment of liq. wastes from the industrial animal prodn. and other nitrogenous effluents is a compact building contg. all sections needed for the substrate decompsn. and microbial nitrogen elimination. All cells are combined with others in rectangular shape. The nitrification basin is exposed to the outside wall only with one of its small sides. The final clarifying basin is designed as a settling tank.

This reduces the expenditure for buildings and equipment to a minimum and increases the efficiency of the plant. It can be easily expanded later. (8pp)

KURZ/ ★ D15 66156 D/37 ★ DD -148-946
 Biochemical liq. animal waste processing - comprises two-step microbial denitrification for decomposing organic material and for pretreating waste or after-treating sludge
 KURZE E 15.01.79-DD-210471
 (17.06.81) C02f-03/30

15.01.79 as 210471 (200HM)

Liq. waste from industrial animal prodn. and other conc. N-contg. waste waters is worked up biochemically to harmless and/or agriculturally useful end prods. The process comprises denitrification, nitrification and after-clarifying steps and the bio-sludge and NO₃-contg. waste waters are recycled to maintain the process. Novelty consists in effecting the microbial N-elimination in 2 treatment steps. The 1st step is used for decomposing the organic contents dissolved in the animal waste prods. The 2nd step is used as a 2nd denitrification, as pre-treatment of the animal waste materials or for the after-treatment of the excess sludge.

The stabilised solids of the excess sludge can be used as carrier materials for high quality mushroom cultivation. The waste materials are treated economically with reduced environmental and water pollution. (10pp)

SWAL ★ D15 66179 D/37 ★ DE 3004-058
 Industrial water purificn. from fluoride - by adsorption on active alumina-packed solid bed reactors and charged alumina recycling for electrolysis

SCHWEIZERISCHE ALUM 20.12.79-CH-011327
 M28 (03.09.81) C02f-01/28 C25b-01/24 C25c-03/22
 05.02.80 as 004058 (200KB)

In industrial waste water purification, esp. for removing F generated in crude Al metal prodn. by electrolysis, the waters obtd. by scrubbing the F-contg. waste gases are (a) set to 500-6000 mg F/l by recycling, (b) partial stream is passed through active Al₂O₃-packed solid bed reactors, (c) partial stream of the partial stream is passed through an active Al₂O₃-packed solid bed reactor. The residual water of partial stream is returned to the scrubbing water cycle. The F-loaded active Al₂O₃ is returned to electrolysis after standard processing.

The active Al₂O₃ can be loaded with 150 g F/kg. The effluent water contains less than 5 mgF/l. (19pp)

BELL- ★ D15 66254 D/37 ★ DE 3007-545
 Hygroscopic granules dissolution - by inclined jets from slotted nozzles intersecting below charging tunnel

GEBR BELLMER MAS KG 28.02.80-DE-007545
 (03.09.81) B01f-01 C02f-01/52
 28.02.80 as 007545 (39RH)

A device for the dissolution of granular hygroscopic substances in water, esp. of flocculants for use in the sewage clarification, consists of a tank in which two flat jet slotted nozzles direct their fluid jets at an angle towards each other. The two jets intersect each other directly below a funnel through which the granules to be dissolved are charged.

This creates an effective wetting and enclosure of each granule of flocculant before the granules can coalesce and form lumps. The result is a reduction of the flocculant consumption. (7pp)

HOOK ★ D15 66275 D/37 ★ DE 3046-898
 Elementary phosphorus removal from waste waters - by precipitating soluble phosphate, filtering and passing filtrate through adsorbent column

HOOKE CHEM & PLAST 13.12.79-US-102717
 E36 (03.09.81) C02f-01/58
 12.12.80 as 046898 (200DH)

The waste waters originate from P prodn., storage, transport and processing plant, and soluble phosphates are pptd. first by adding a cpd., (I), which forms an insoluble phosphate. The ppte. is filtered off. The filtrate is then passed through an adsorbent-packed column, whereby elementary P-free water is obtd.

(I) is esp. a soluble Ca salt, CaO, Ca(OH)₂ or alum or opt. a salt of Ni, Fe, Ba, Mg or Co. The adsorbent is esp. active C. In a pref. process, air is passed through the reaction mixt. after adding (I) and before filtration. Water which can be discharged without causing environmental pollution is prepd. by treating the wash waters with quicklime, aerating, filtering off the ppte. and passing the filtrate through active C. Elementary P content can be reduced to less than 0.001 ppm. (10pp)

DOPP/ D15 15743 V/09 = DS 2239-385
Waterworks filter tank cleaner - based on self-propelled, chain-driven scrapers

DOPPSTADT W 10.08.72-DE-239385
 (03.09.81) *DE2239-385 + B01d-35/24
 10.08.72 as 239385 Add to 2719484 (39AT)

The filter basins used in the filtration of drinking water are cleaned out by a vehicle which travels along the basin bottom and scrapes off a surface layer of the filter basin. The scraper device consists of flights across several endless chains which run around sprockets on an inclined frame structure ahead of the vehicle.

This frame has on both sides mechanical height sensors which are in sliding contact with the basin bottom and control a hydraulic servo system. Two hydraulic cylinders which support the frame at the necessary angle are thereby actuated as a function of the bottom outline.

This permits the removal of a layer of specified thickness with a min. of wear. DS (8pp)

PERU D15 44394 B/24 = EP G002-342
Ion exchange water purifying appts. - comprising separate beds of cation and anion exchange resins

PERMUTIT-BOBY LTD 07.10.78-GB-039714 (30.11.77-GB-049770)
 (02.09.81) *EP--2-342 + C02f-01/42

28.11.78 as 300672 (977NS) (E) FR2207866 GB-849979 US2999821 US3849306 2.Jnl.Ref E(BE DE FR GB NL SE)

Water of low solids content is purified by ion exchange by treating in a bed of anion exchange resin followed by a bed of cation exchange resin in which each bed is less than 1m deep and the cation and anion exchange resins are regenerated, if necessary, separate from each other. The flow rate through the final bed is above 100m/h and the flow rate and regeneration are such that the dissolved solids content of the purified water is below 5 micrograms per litre. Pref. the flow rate through all beds is above 100m/h.

The purified water is suitable for use in pressurised water reactors and advanced gas cooled reactors. The process can be used for water having high pH as a result of having been dosed with nitrogenous base. (9pp)

KILC- D15 44431 B/24 = EP G002-422
Cross-flow filtering appts. - has vertical stack of filtering discs mounted on collecting tube into which filtrate is forced along spiral paths induced by inlet tube

KILCHER-CHEMIE AG 01.12.77-CH-014689
 J01 (02.09.81) *EP--2-422 B01d-13 B01d-31 B01d-53/22 C02f-01/52

15.11.78 as 810022 (39BZ) (G) FR1412837 FR2153334 FR2203664 FR2332043 US2797812 US3398833 US3456805 US3410058 E(BE DE FR GB LU NL SE)

A filtration device for pressurised liquids consists of a vertical cylinder in which a stack of spaced filter discs is mounted. The liquid inflow is through a pipe near the centre with tangential holes between each filter disc to impart a spiral motion. The outflow is through a similar pipe near the periphery.

Each filter disc consists of a central plate of metal or plastic, with a greating of grooves leading to the central tube for the filtrate discharge. This plate is covered on both sides by porous polyethylene, coated with a microporous (1-100 nm) membrane. Such a filter has an excellent efficiency and a simple design for low-cost manufacture. (7pp)

PERC- D15 49247 B/27 = EP G002-727
Continuous effluent filtration - by passing effluent alternately cross/wise to flow of descending filter material

PERC SRL (UTUM) 22.12.77-DE-757209
 J01 (02.09.81) *DE2757-209 B01d-33 C02f-01
 13.12.78 as 101661 (39BZ) (E) DE2126631 FR1438301 US3150063 US-492716 E(BE FR GB IT NL SE)

Liquids, specially effluents, are continuously filtered in a vertical cylinder in which a bed of filter material in the shape of an annular cylinder is kept in steady descending motion. The spend material is constantly extracted at the bottom and recharged after reconditioning at the top.

The liquid to be filtered is directed radially inward in the lower half, and radially outward in the upper half. This is an uncomplicated filter system which has an enhanced filtering efficiency and increased throughput. (9pp)

STAB- D15 57267 C/33 = EP G013-822
Chemical pretreatment of hazardous waste in containers - by placing containers in vessel contg. pretreatment medium, and agitating to rupture containers

STABLEX AG 29.12.78-GB-050209
 M11 P35 P43 (02.09.81) *EP--13-822 A62d-03 B09b-03 C02f-11
 19.12.79 as 302964 (977NS) (E) No-Citns. E(AT BE CH DE FR IT LU NL SE)

Hazardous wastes received in containers at a waste disposal plant are pretreated by placing the unopened containers in a vessel contg. a pretreatment medium and submitting the containers to an agitating process which ruptures the containers and deposits the contents in the vessel. Pref. the agitating process is carried out by members depending from arms rotatably driven by an upstanding shaft in the central part of the receptacle.

There are three types of chemical pretreatment:- (1) neutralisation (2) pptn. of the soluble hazardous component in insol. form, and (3) other specific chemical process, e.g. oxidn. of cyanides to cyanates. (5pp)

LEAM- ★ D15 66285 D/37 ★EP --34-661
Recovery of charged ions from soln. - by treatment by both electrodialysis and Donnan dialysis

LEA MFG CO 01.02.80-US-117620
 J01 M11 (02.09.81) B01d-13/02 C25d-21/16
 10.12.80 as 107793 (295HM) (E) DE2537591 GB1298814 E(DE FR GB IT)

Plating line includes a plating bath, and two rinse baths used sequentially. Rinse water from the first rinse bath is treated with an electrodialysis unit and rinse water from the second rinse bath is treated with a Donnan dialysis unit.

Pref. the rinse water from the first rinse bath is recirculated through the electrodialysis unit to maintain the concn. of charged ion in the concn. soln. from the electrodialysis unit equal to the concn. of the charged ion in the plating bath. The concn. soln. may be returned to the plating bath.

The method is partic. described for use with a metal finishing process although it may also be used to recover charged ions in the pharmaceutical industries, photography, mining and metal recovery, and the textile industries. The ion concn. can be efficiently reduced to very low levels. (14pp)

DUPO ★ D15 66392 D/37 ★EP --34-920
Water desalination by falling-film evaporator - with recovery of heat to preheat feed water

DU PONT DE NEMOURS CO 12.11.80-US-206288 (20.02.80-US-123023)

A88 Q78 (02.09.81) B01d-01/22 C02f-01/08 F28f-03/04 F28f-21/06
 19.02.81 as 300686 (295RH) (E) CH-411955 FR1380618 DE2511144 AU-413190 GB1313300 EP--18823 US3275529 US3814172 FR2210754 FR2112006 E(BE DE FR GB IT NL SE)

Preheated brine is applied as a falling film to one surface of a sheet of polymeric material whose other face is heated by condensing steam. Heat from the condensed steam and the conc. brine is recovered to preheat the feed brine. The temp. difference across the two faces of the polymeric sheet is 0.1-3.5 deg.C and the feed rate of the brine is less than 300 kg per linear horizontal meter, pref. 45 kg/m.

The polymeric sheets are arranged in pairs and pref. the appts. has multiple stages where the uncondensed steam from one stage is supplied to a downstream stage operated at a lower pressure. Alternatively the uncondensed steam can be compressed and recirculated to the same stage.

Appts. desalinates brine and employs a small temp. differential to optimise energy efficiency. (33pp)

AMWA- D15 12133 A/06 #GB 1597-391
Aerobic sewage treatment in modular tank - divided by perforated baffle into primary and mixing zones

AMER WATER RECYCLIN 25.08.75-US-607623 (25.01.78-GB-002968)
 (09.09.81) *US4070-292 + C02f-01/50 C02f-03/02 C02f-09

25.01.78 as 002968 (1376AT)
 Extended aeration system consists of a treatment tank split by a foraminous screen into primary and mixing chambers, and a mixer and an aerator to recycle part of the mixing chamber contents through the screen into the primary chamber. The screen keeps the solids in the primary zone in which they are subjected to organic decomposition. Treated effluent is removed from the mixing chamber.

System is simple and can be transported to a plant site. (9pp)

UNIC D15 59116 A/33 = GB 1597-395
Waste water sludge decomposition - under aerobic and then anaerobic conditions with methane generation for use as fuel (BE 7.8.78)

UNION CARBIDE CORP 13.10.77-US-841902 (08.02.77-US-766770)

(09.09.81) *DE2805-054 + C02f-03/30
 07.02.78 as 004813 (931BZ)

Sludge is digested by introducing it in fluid form with an aeration gas contg. 50 vol.% or more of O₂ to a first covered digestion zone, and mixing them to maintain a dissolved O₂ content of 2 mg. per l or more and a total suspended solids contents of 20.000 mg. per l

or more. The sludge is maintained in the zone at 45-75 deg.C for 4-48 hrs. to partially reduce the biodegradable volatile suspended solids content.

The partially stabilised sludge and the O₂-depleted digestion gas of 21% or more purity, are separately discharged from the zone, and the sludge introduced into a second covered digestion zone.

The sludge is maintained in the second zone under anaerobic conditions at 30-60 deg.C for a time to further reduce the biodegradable solids content to less than 40% of the original. CH₄ is formed and discharged with the sludge from the second zone. (23pp)

BERT/ D15 02189 B/02 = GB 1597-410
Water e.g. for swimming pools or fish tanks - is element-enriched by passing through element rich material e.g. lava
BERTHELSEN V 14.06.77-DK-002616
(09.09.81) *DE2824-572 + C02f-01/68
31.05.78 as 025687 (931BZ)

The element-enrichment of water for tank or pools comprises circulating tap water or water from a natural source through a layer of an element-rich material, and circulating through a swimming pool or a fish tank or pool. The element-rich material used is crushed lava, crushed dolomite or fly ash produced in power stations using pulverised anthracitic coal as fuel. Pref. the material has a particle size 0.1-50 mm (esp. 3-10 mm) and is used in amt. 0.5-1 kg. per cub. m of water circulated.

The element-rich material is esp. contained in a container separate from the swimming pool or fish tank or pool. (2pp)

FISO ★ D15 66483 D/37 ★ GB 1597-473
Grease removal from aq. emulsions - esp. from wool scouring effluents, by flocculation
FISONS LTD 20.08.77-GB-035026
A97 E31 F01 (E33) (09.09.81) C02f-01/52
30.05.78 as ----- (367BZ)

New process comprises treating an aq. emulsion contg. lanolin with a flocculating agent (I) at a pH of less than 7 and separating the resulting flocs from the emulsion.

The wool scouring effluent is pref. centrifuged to remove most of the grease and solids before adding (I). (I) can be an Al, ferrous or ferric salt or hydroxide or an acrylamide homo- or copolymer, and is esp. FeCl₃. (I) is pref. added in an amt. of 0.004-1 wt. %.

The process is esp. useful for removing lanolin-rich grease residues from wool scouring effluents, giving a treated effluent with a low COD. (3pp)

ARCA- D15 49708 A/28 = GB 1597-517
Pyrolysing wet organic residues, esp. drain sludge - after mixing with carbonised solid product
ARCALON GEN PETR BV 07.01.77-US-757661
E36 J09 Q73 (09.09.81) *BE-862-701 F23g-05
29.12.77 as 054125 (1376AT)

Refuse contg. large quantities of water and combustible organics is treated by being fed into an externally heated pyrolysis zone in which the refuse is pyrolysed in the absence of O₂. Part of the carbonaceous material produced during the pyrolysis is mixed with the refuse before entering the pyrolysis zone to form a dry granular prod.

Wet sewage sludge can be treated efficiently. (5pp)

BRTO ★ D15 66496 D/37 ★ GB 1597-845
Treatment of sewage in sewer with oxygen - introduced at controlled rate through porous longitudinal fins
BOCLTD 11.03.77-GB-010539 (08.01.73-GB-001028)
(09.09.81) C02f-03/02
07.03.78 as ----- Add to 1452961 (295BZ)

Sewage which is either flowing, or being held, in a sewer is treated by the injection of an oxygen-rich gas. The gas is supplied through one or more gas-permeable surfaces of projections which extend into the sewer. Pref. each projection is in the form of a radially disposed longitudinal fin. The gas is pref. supplied to the fins from a source of liquid oxygen.

Pref. the dissolved oxygen concn. or biological oxygen demand of the sewage is measured downstream of the gas injection point and this is used to control the rate of gas injection.

The gas is in the form of fine bubbles which facilitate the gas dissolution. (5pp)

APVC ★ D15 66530 D/37 ★ GB 2070-580
Wet oxidn. of organic wastes - using reaction of hydrogen peroxide and catalase to provide oxygen and raise pressure
APVCO LTD 04.03.80-GB-007239
(09.09.81) C02f-01/72
04.03.80 as 007239 (955RH)

Wet oxidation of organic wastes under conditions of high temp. and pressure is carried out using oxygen generated in situ by contact of hydrogen peroxide with catalase.

The process has reduced energy consumption as less power is needed to compress the waste water and the air or oxygen normally used.

The catalase may be immobilised on one or more fixed beds. In one embodiment, waste water contg. hydrogen peroxide is pumped through a chain of three pairs of reactors, all contg. fixed beds of catalase and each set preceded by a heat exchanger. Only one of each of the pairs of reactors is in use at any time. The liquid then flows to a large stirred reactor for completion of oxidation. The treated effluent flows back through the three heat exchangers, progressively heating the incoming liquid. (4pp)

RITP ★ D15 66604 D/37 ★ GB 2070-90
Organic free purified water - obtd. by ultraviolet irradiation from lamp while recirculating water for preset period
SYBRON CORP 05.03.80-US-127387
X25 (09.09.81) B01j-19/12
20.02.81 as 005410 (295)

A batch of water is recirculated through a jacket which surrounds an ultraviolet lamp. During this operation organic material decomposes and releases Carbon Dioxide which is vented from the top of the jacket. After a preset period of recirculation, an indicator is actuated and the purified water can be removed although pref. the recirculation and ultraviolet illumination continue. A section of the recirculation loop includes a transparent section which acts as a sight glass.

The appts. accepts distilled or deionised water and decomposes organic material to yield an ultra-pure prod. (7pp)

AGEN ★ D15 66644 D/37 ★ J5 6091-803
Mouldable semipermeable membrane - prepd. by dissolving polyallylate resin in mixt. of dioxan and/or THF and poor solvent for resin, and shaping
AGENCY OF IND SCI TECH 27.12.79-JP-173619
A88 J01 (A14 A32) (25.07.81) B01d-13
27.12.79 as 173619 (96AS)

Semipermeable membrane of polyallylate resin is prepd. by dissolving polyallylate resin in a mixed solvent consisting of dioxan and/or THF acting as good solvent for polyallylate resin and additional solvent acting as bad solvent or non-solvent to it, and then forming the membrane into desired shape, using the soln.

Membrane may be moulded into sheets, tubes, hollow fibres or composites in combination with a porous support. (4pp)

TOYJ ★ D15 66645 D/37 ★ J5 6091-814
Ultrafiltration membrane mfr. - by pouring soln. of di:chloro di:phenyl sulphone bisphenol copolymer in hydrophilic polar solvent onto plate and immersing in methanol
TOYO SODA MFG KK 26.12.79-JP-168139
A88 J01 (A26 A32) (25.07.81) B01d-31
26.12.79 as 168139 (96RH)

Mfr. of ultrafiltration membrane comprises dissolving dichlorodiphenylsulphone-bisphenol copolymer into hydrophilic polar solvent, pouring the resulting soln. onto a glass plate or a porous plate, and then immersing the casting into methanol or its mixt. within 50 sec. after pouring, without evaporating the solvent.

Used for concn. and rejection of high polymer, and also sepn. of a mixt. of different mol. wt. polymers.

In an example, 25g polysulphone resin was dissolved in N,N-dimethylformamide. The resulting soln. was poured in 0.3mm thickness over a polyethylene nonwoven fabric, and the casting, while still on the nonwoven fabric, was immersed into water maintained at 2 deg. C within 30 sec. to form membrane. Then, the casting was washed with stream of water for 12 h to completely remove solvent. The resulting membrane exhibits water transmissivity rate of 90L/sq.m.h at 0.5 kgG/sq.cm. Rejection to 0.3wt. % aq. bovine serum albumin soln. was more than 99% under 0.5kg/sq.cm. (3pp)

TOYJ ★ D15 66646 D/37 ★ J5 6091-815
Ultrafiltration membrane mfr. - by dissolving di:chloro-di:phenyl sulphone bisphenol condensed copolymer in mixed solvent, immersing in water and then methanol
TOYO SODA MFG KK 26.12.79-JP-168140
A88 J01 (A26 A32) (25.07.81) B01d-31
26.12.79 as 168140 (96PW)

Method comprises (a) dissolving dichlorodiphenylsulphone-bisphenol condensed copolymer into a mixed solvent consisting of solvent which is good solvent for the copolymer and miscible with water and solvent which is poor solvent or nonsolvent for the polymer and immiscible with water, (b) pouring the resulting soln., (c) immersing into water and (d) immersing into methanol. The process makes it possible to prepare membrane having uniform quality, since process does not include heat-drying for removing solvent. The membrane is used for concentration and

rejection of high polymer and colloid suspending in water.

In an example, with 90 ml DMF there was mixed 10 ml of xylene, and 20 g of polysulphone resin was dissolved into the mixed soln. The soln. was poured over polyethylene nonwoven fabric so as to be about 200 micron thickness, immediately after, the casting was immersed into methyl alcohol maintained at 10 deg.C, and stood for 24 hr, and again immersed into water. The resulting membrane exhibited water transmissivity rate of 180 L/m².hr under 0.5 kgG/cm². The rejection of 0.2 wt.% aq. egg albumin soln. was 95%. (3pp)

SASA-★ D15 66659 D/37 ★ J5 6091-888
Additive to produce drinking water - comprises sodium or calcium hypochlorite and at least one salt of potassium, sodium, calcium or magnesium

SASAKURA KIKAI SEIS 26.12.79-JP-169807
(25.07.81) A231-01 C02f-01/68

26.12.79 as 169807 (51BZ)

Additive producing drinking water, from sea water consists of hypochlorite and at least one of salts of K, Na, Ca, or Mg. The hypochlorite is sodium hypochlorite or calcium hypochlorite. The salt is CaCl₂, CaCO₃, NaHCO₃, Na₂CO₃, NaCl, or KOH.

Sea water is distilled in a distilling appts. or introduced into an appts. equipped with a reverse permeating membrane to obtain fresh water. However, the obtd. fresh water is not suitable to drink and must be sterilized with Cl and adjusted with chemicals to obtain drink water suitable for humans. (3pp)

KAWI ★ D15 66660 D/37 ★ J5 6091-895
Treatment of waste water from waste oil recovering appts. - includes adding calcium carbonate slurry, introducing air to hydrolyse iron salt present and sepg. ferric hydroxide produced

KAWASAKI STEEL KK 27.12.79-JP-173687
(25.07.81) C02f-01/72 C02f-09

27.12.79 as 173687 (51WB)

Method comprises (a) adding sulphuric acid to waste oil to dissolve Fe powder in the waste oil as an iron salt, (b) introducing the resulting waste oil into a sepg. tank to separate floating oil and by-produced waste water contg. the iron salt, (c) adding a slurry of calcium carbonate to the waste water to adjust PH to 5.8-6.0, (d) introducing air into the resulting water to convert the iron salt to ferric hydroxide, (e) introducing the water contg. ferric hydroxide into a thickener to separate the ferric hydroxide from the water, (f) introducing the resulting sepd. water into an apparatus having rotary plates with deposited bacteria to biologically treat it, and (g) removing organic impurities from the water to obtain purified water.

Organic impurities are effectively removed from the water. (5pp)

EBAI ★ D15 66661 D/37 ★ J5 6091-900
Processing high water content sludge - using reagent obtd. by polymerising starch or cellulose

EBARA INFILCO KK 25.12.79-JP-168723
A97 (25.07.81) C02f-11/14

25.12.79 as 168723 (51DH)

The method comprises adding a polymer type cpd. with good water absorbing properties to waste sludge containing a large amount of water to obtain dehydrated and dried sludge particles. The cpd. is obtained by polymerising starch or cellulose with acrylic acid or acrylonitrile or cross-linking a salt of acrylic acid.

In further detail waste water was treated with the activated sludge treating process to by-produce a waste sludge containing 84.5% water. The waste sludge was centrifugally dehydrated in the presence of an organic polymer agent to obtain a filter cake.

Starch was polymerised with acrylic acid to obtain a polymer cpd. high in water absorbing properties, 2% of the cpd. was added to the filter cake, and stirred therewith in air to convert the cake to porous dehydrated sludge particle. (3pp)

FUJT ★ D15 66716 D/37 ★ J5 6092-145
Aq. slurry solidifying agent - comprises cement and mixt. of calcium sulpho aluminate and calcium sulphate

FUJISASH IND KK 25.12.79-JP-167694
L02 P43 (25.07.81) B09b-01 C04b-07 C04b-29

25.12.79 as 167694 (34WB)

The solidifying agent exhibiting excellent water absorption and solidification property, and suitable for use in solidification of sludge having high water content, e.g. sewage, etc. or for consolidating weak ground etc., is described. The agent comprises cement and a mixt. of Ca sulphoaluminate and insoluble anhydrous CaSO₄-II, as solidification-enhancing agent. The wt. ratio between the former and the latter is 1/(0.2-4.0). The content of solidification-enhancing agent is 5-80 wt. %.

In an example, 500 ml waste H₂SO₄ soln. from the anode oxidn. of Al product and 650 ml waste NaOH soln. are mixed together (pH 7.0) to give non-crystalline alumina hydrate. The alumina

hydrate obtd. and CaCO₃ are mixed together and dewatered by centrifugation in admixt. with polymer coagulant, after which the reaction mixt. is pre-dried at 150 deg.C for 5 hrs. and calcined at 1,400 deg.C for 2 hrs. to give Ca sulphoaluminate (CSA). CSA is then mixed with ordinary portland cement and insoluble II anhydrous CaSO₄ II to give a sludge-solidifying agent. (4pp)

NITL ★ D15 67136 D/37 ★ J5 6095-305
Liq. filter element wound around shaft - has inner and outer membranes sealed together leaving space for interposition of intermediate layer

NITTO ELECTRIC IND KK 29.12.79-JP-172147

J01 P34 (01.08.81) A61m-01/03 B01d-13

29.12.79 as 172147 (26AS)

Filter element shaped like a sheet is described for filtering a soln. such as aq. effluent. The element is pref. assembled in a precision filter, and consists of three layers; two are membranes and the third is interposed to form a liq. passage. The element has a rectangular shape, three sides being sealed to form a sheet bag having an opening connected to a liq. feed source.

Improvement is that the element is wound around a straight shaft. The outer membrane is so sealed to the inner membrane that a space is formed to just receive the intermediate layer. Formation of wrinkles on the filtering surface of the membrane is prevented. (4pp)

KURS ★ D15 67137 D/37 ★ J5 6095-306
Cleaning filter header - for feeding liq. to bundles of hollow yarns, using cleaning flow parallel to header face perpendicular to long axis of yarns

KURARAY KK 28.12.79-JP-172485

J01 (01.08.81) B01d-13

28.12.79 as 172485 (26RH)

A method is claimed for cleaning a header for feeding a raw liquid such as dirty water into a bundle of hollow yarns, forming a filtering membrane in a form of filtering module to be assembled in a filter. The object is to completely clean the header to avoid clogging of the hollow yarns.

The novelty is as follows; a flow of cleaning liquid is applied to the header so as to flow in parallel to the header face perpendicular to the long axis of the hollow yarns, until scale is peeled off from the header face and drained outside through a drain port provided at the header. (4pp)

KURS ★ D15 67138 D/37 ★ J5 6095-307
Feeding raw liq. into filter without clogging filter or feed header - using liq. drain ports at feed header to return part of liq. to feedback line connected to tank or pump inlet.

KURARAY KK 28.12.79-JP-172486

J01 (01.08.81) B01d-13 B01j-04

28.12.79 as 172486 (26WB)

Method comprises feeding raw liq. such as dirty water into a filter such as those having hollow yarn membranes housed in tubular casings to form membrane filter modules, each having a raw liq. feed header, connected to a raw liq. tank through a pump. The drain port of each module is connected to a return line connected to the tank to form a liq. circulating path.

One or more liq. drain ports are formed at the feed header to partly return the liq. from the header to a feed back line connected to the tank or pump's inlet, continuously or intermittently. (4pp)

NIEN-★ D15 67143 D/37 ★ J5 6095-313
Water filter with tube shaped element - connected to liq. reservoir via central opening in cover to provide back wash

NIPPON ENVIRO KOGYO 29.12.79-JP-173482

J01 (01.08.81) B01d-29/06

29.12.79 as 173482 (26BZ)

A method and device are claimed for filtering a liquid such as dirty water. It comprises a tank, filter element shaped like a tube having an opening at the upper end fixed to an upper cover of the tank, which is connected to a liquid reservoir located above the tank. The object is to easily switch the filtering and back wash phases.

The novelty is that the cover has a centre opening, through which the reservoir is communicated with the filter element. In the filtering phase, the raw liquid is filtered, fed into a lower feed port of the tank, in the back wash phase, the filtrate flows down into the filter element from the reservoir. (3pp)

INOZ ★ D15 67144 D/37 ★ J5 6095-314
Mfg. filter for liq. contg. fine suspended solids - by forcing plating soln. through perforated plate and applying voltage to plate

INOUE JAPAX RES INC 29.12.79-JP-172974

J01 (01.08.81) B01d-39/14

29.12.79 as 172974 (26AS)

Prod'n. of filter for liquids contg. fine suspended solids, e.g. dirty water is described. Improvement is that small holes are bored through a blank plate. While a plating soln. is forcibly passed through the perforated plate, a voltage is applied to effect plating to reduce the dia. of each small hole to the desired dia. Filter element may be used for dialysing blood. (4pp)

FUJI-★ D15 67155 D/37 ★ J5 6095-333
Non aq. soln. adsorbing material comprises acid treated graphite - contg. reaction cpds. in its layers, which expand when heated

FUJI LIGHT KOGYO KK 28.12.79-JP-170903

H03 J01 (01.08.81) B01j-20/20 C02f-01/28

28.12.79 as 170903 (55BZ)

A non-aq. soln. adsorbing material used for separating non-aq. soln. from aq. system is novel. The material is an acid treated graphite which contains reaction cpds. between its layers and when it is heated to at least 200 deg. C the layers are extended and expanded to some 10 times or even up to 100 times as much as its original volume. The graphite is treated with an acid so that an acid treated graphite contg. reaction cpds. between its layers is obtd. Then it is heated and a heat expanded graphite is obtd. Non-aq. solns. are selectively adsorbed by the heat expanded graphite and removed from aq. system.

The process is esp. useful for removing oil or organic components from water (sea, river, sewage, etc.). (4pp)

KOSH/★ D15 67168 D/37 ★ J5 6095-390
Treatment of waste water contg. hexavalent chromium - obtd. from chromium plating plant, by contacting with active carbon at specified pH to form trivalent chromium

KOSHINO S 28.12.79-JP-172343

E31 M13 (01.08.81) C01g-37 C02f-01/62 C25f-07/02

28.12.79 as 172343 (51RP)

The method comprises contacting waste water contg. Cr ions with active C at pH sufficiently low to convert harmful hexavalent Cr to non-harmful trivalent Cr.

Specifically a substance is plated with Cr in a Cr plating bath. The resulting Cr plated substance is immersed in water at a Cr recovering tank to recover adhered Cr. The resulting substance is washed with water in washing tanks to by-produce waste water contg. hexavalent Cr. The waste water is introduced from the tanks into an active C packed tank to convert hexavalent Cr of the waste water to trivalent Cr. The trivalent Cr is neutralised with alkali to recover Cr hydroxide as ppt. from the waste water. (4pp)

SUMI-★ D15 67170 D/37 ★ J5 6095-396
Biological waste treatment by successive denitrification - and aerobic nitrification in the same tank, used for treating water contg. nitrogen cpds. e.g. ammonia

SUMITOMO JUKIKAI EN 00.00.80-JP-127201 (12.01.77-JP-001561)

(01.08.81) C02f-03/34

12.01.77 as 127201 /80 Div.ex. 1561/77 (51NS)

The method comprises carrying out an anaerobically denitrifying operation and an aerobically nitrating operation in only one treating tank to biologically treat waste water contg. organic substances and nitrogen compounds. The improvement comprises introducing the waste water into the treating tank, anaerobically stirring the waste water into the treating tank in the tank to denitrify it, aerobically stirring the resulting nitrified in the tank to nitrate it, exhausting the resulting nitrified and nitrated water from the tank to a settling tank to settle a waste sludge, and separate the settled sludge to obtain treated water contg. no organic substances and nitrogen compounds. (-pp)

TKEN ★ D15 67171 D/37 ★ J5 6095-399
Solidifying waste substance such as sludge - using hydraulic cement contg. added aluminium component, gypsum and calcium (hydroxide)

TAKENAKA KOMUTEN KK 28.12.79-JP-173266

L02 (01.08.81) C02f-11 C04b-29

28.12.79 as 173266 (51DJ)

The method comprises solidifying the waste substance with a solidifying agent mainly consisting of hydraulic cement. The improvement comprises adding the first component consisting of at least one of noncrystalline aluminium hydroxide or basic aluminium sulphate, the second component consisting of at least one of anhydrous gypsum or hydrous gypsum, and the third component consisting of at least one of calcium hydroxide or quick lime to the hydraulic cement to obtain a mixed type solidifying agent, and solidifying the waste substance with the mixed type agent, where, if necessary, at least one of ferrous sulphate, ferric sulphate, ferrous chloride, or ferric chloride is added as the fourth component.

Method is used for drain sludge or industrial sludge contg. harmful metals. (7pp)

AJIN D15 51113 Y/29 = J8 1035-179
(N)-acylamino acid derivs. soln. - useful as gelling agent for oil in water

AJINOMOTO KK 01.12.75-JP-144220

E16 H03 (15.08.81) *J52068-102 C07c-103/50 + C07c-149/24

01.12.75 as 144220 (75RH)

Either N-acylamino acid amide or N-acrylamino acid ester is dissolved in an organic medium in the presence of 0.5-30 pts. wt. of an inorganic metal salt soluble in the organic medium per 100 pts. wt. of the organic medium.

Use of the obtd. compsn. facilitates the gelling of oils coexisting with water using much smaller amts. of other gelling agents. For example, when the oil on the sea is gelled, dispersion of the above compsn. on the sea in an amt. of 5-30% relative to the oils is adequate, so that further dispersion of the oils can be prevented. The gelled oils can be recovered even with the fishing net. Also used for disposing waste water contg. oils. (J52068102) (5pp)

NITL D15 88849 A/49 = J8 1035-485
Tubular membrane separator used for liquid waste sepn. - has easily replaceable membranes which are housed in porous plates arranged in a tubular case

NITTO ELECTRIC IND KK 12.04.77-JP-042244

J01 (18.08.81) *J53125-976 B01d-13

12.04.77 as 042244 (26AS)

Device is used for sepg. a liquid waste using a semipermeable membrane. It is usable for reversed osmotic sepn. and ultrafiltrations. The membrane set in the device is easily replaceable. Porous pipes, each housing a tubular semipermeable membrane, are arranged in parallel in a tubular case. Both ends of each pipe are fixed to both side support plates located in both end spaces of the case. Bend joints connect ends of the neighbouring pipes at each side support plates so that the porous pipes are connected in a zigzag pattern in the case. Each bend joint is retained by an end plate of the case. (J53125976) (5pp)

NITL D15 10697 B/06 = J8 1035-486
Water permeable filter member for ultrafiltration etc. - used in separator having porous support band with membrane enclosing support

NITTO ELECTRIC IND KK 30.05.77-JP-063797

J01 (18.08.81) *J53147-681 B01d-13

30.05.77 as 063797 (26WB)

Water permeable and collecting member of a liq. separator for treating a liq. is described for reverse osmosis, microfiltration and ultrafiltration. An envelope consists of a porous band support and membrane enclosing the support. One end of the envelope is connected to a hollow pipe having a trapezoidal or sector shape and water-permeable holes bored through the wall of the pipe.

Several pipes are arranged around a circle and the respective envelopes are arranged into unity and spirally wound around the pipes assembly. Sepn. efficiency is improved without increasing the size of separator. (J53147681) (6pp)

NITL D15 10982 B/06 = J8 1035-487
Filtering waste soln. contg. polyoxyethylene cpd. - by heating the soln. to above the cloud pt. during filtering

NITTO ELECTRIC IND KK 31.05.77-JP-064386

A35 J01 (A25) (18.08.81) *J53149-180 B01d-13 + C02f-01/44

31.05.77 as 064386 (51WB)

In filtering the waste soln. contg. the polyoxyethylene cpd. with a porous film, the improvement comprises heating and maintaining the water soln. at above the cloud pt. during filtering. The filter film is a microfilter, an ultra-filtration film or a reverse osmosis film. The polyoxyethylene cpd. is pref. polyoxyethylene alkyl phenyl ether, polyoxyethylene alkylether, polyoxyethylene fatty ester, polyoxyethylene sorbitanester, polyoxyethylene alkylamine or polyoxyethylene-polyoxypropylene copolymer.

The COD and BOD of the waste soln. is reduced. The polyoxyethylene cpd. is used as a non-ionic surfactant. (J53149180) (3pp)

MITR D15 66007 W/40 = J8 1035-490
Dryable (co)polyacrylonitrile membrane with reversible properties - by water immersion, for reverse osmosis and ultrafiltration

MITSUBISHI RAYON KK 12.12.73-JP-141465 (00.00.78-JP-073541)

A88 J01 (A14) (18.08.81) *FR2254-355 B01d-13 C08j-05/18

12.12.73 as 073541 (AS)

A semipermeable membrane which can be dried is prepd. by (a) forming a 15-30 pref. 15-25 wt.% soln. of an acrylonitrile polymer or copolymer contg. over 65, pref. 85-99 wt.%, acrylonitrile, in pref. dimethyl acetamide (DMA) DMF and/or DMSO, (b) evenly spreading the soln. according to desired shape and immersing it in a non-solvent medium (pref. water or a mixt. of water and

DMA, DMF and/or DMSO), to eliminate the solvent and form a membrane, (c) heating the membrane in a moist atmosphere at 60-90 deg.C and (d) drying the membrane at a temp. lower than used in (c), thus forming a dried semipermeable membrane with open pores of dia. less than 0.5 microns and porosity 0.40-0.7. The membrane is used in reverse osmosis and ultrafiltration processes. The membrane after drying can be made to recover its semipermeability properties by immersion in water. (J54015478) (5pp)

DENK D15 13639 C/08 = J8 1035-491
Sintered support for forming dynamic membrane - used for purificn. of industrial waste water

TDK ELECTRONICS KK 23.06.78-JP-075516

J01 L02 (18.08.81) *J55003-810 B01d-13

23.06.78 as 075516 (55DJ)

The said support consists of an alumina sintering plate (the pore size is 1-10 micron and the porosity is 25-35%), and on the surface of which, 10-500 microns thick sintering layer (made of Fe₃O₄ and glass powder) is formed. The porosity of the layer is 10-30% and the pore size is 0.01-1 micron.

The support is produced as follows: a slurry made of a mixt. of Fe₃O₄, glass powders of silicate glass, phosphate glass, borate glass etc. is applied on a surface of an alumina sintering plate then after it is dried, the layer is heated at 800-1100 deg. C, then cooled. (J55003810) (2pp)

SAOK D15 14695 D/09 = J8 1035-495
Mfg. ultrafiltration membrane used to treat pulp plant waste water - from polysulphone resin, using mixt. of N-methyl 2-pyrrolidone and dioxan solvent

SANYO KOKUSAKU PULP 08.06.79-JP-071152

A88 F09 (A26) (18.08.81) *J55165-117 B01d-31 + B01d-13

08.06.79 as 071152 (42AT)

When an ultrafiltration-membrane (I) is mfd. from polysulphone-resin (II), a mixt. of N-methyl-2-pyrrolidone (III) and dioxane (IV) is used as the solvent of (II). The method relates to the prodn. of (I) used for the treatment of waste water from pulp-plant. The use of a mixt. of (III) and (IV) as the solvent makes it possible to mfr. (I) having fine-structured skin-layer and coarsely porous sponge-layer. (I) mfd. has water-permeating velocity 1.5 times, and the colour- removing ratio 1.05-1.20 times, as much as those of (I) mfd. by prior art.

The wt. ratio of (III)/(IV) is pref. 80/20-60/40. The conc. of (II) in the dope is 20-25%. A fibrous sheet of polypropylene is pref. used as support. (J55165117) (4pp)

TORA D15 08848 B/05 = J8 1035-497
Reverse osmosis membrane comprising cellulose deriv. - obtd. from soln. contg. e.g. cellulose acetate butyrate) methyl or ethyl cellulose, organic solvent and tetra-carboxylic acid

TORAY IND INC 25.05.77-JP-059902

A88 E17 J01 (A11 E15) (18.08.81) *J53144-883 B01d-13

25.05.77 as 059902 (51WB)

The membrane consists of a cellulose derivative below 0.2 piece/0.844 mm² void coefficient and 3 x 10 power minus 10 g₃/cm⁷.atm³ A₃/B where A is water permeating constant (g/cm³.sec. atm), and B is salt permeating constant (cm/sec.). The membrane is obtd. from a membrane producing solution of a cellulose derivative, organic solvent, and tetracarboxylic acid of formula R-(CO₂H₄), where R is tetravalent aliphatic or alicyclic organic group of 2-10C.

The cellulose derivative is cellulose acetate, cellulose acetate butyrate, methyl cellulose, or ethyl cellulose. The organic solvent is acetone, DMC, dioxane, DMSO acetic acid, diethylene glycol, diacetone alcohol, acetonitrile, or nitromethane. The acid is butane tetracarboxylic acid, ethylene tetracarboxylic acid, dicyclobutane tetracarboxylic acid, cyclopentane tetracarboxylic acid or cyclopropane tetracarboxylic acid. (J53144883) (5pp)

KURK D15 60430 B/33 = J8 1035-498
Sea water desalination appts. - comprises primary and secondary reverse osmosis desalting units and a water pressure controlling device

KURITA WATER IND KK 16.12.77-JP-150614

(18.08.81) *J54083-688 B01d-13 + C02f-01/44

16.12.77 as 150614 (26AT)

The appts. comprises prim. and sec. reverse osmosis desalting units and a means for controlling the pressure of water to be fed to the sec. desalting unit from the prim. Two waters are produced one having a low salt concn., the other a higher salt concn., using desalting units having small membrane areas.

The prim. unit contains a reverse osmotic membrane structure having a higher desalting ratio and produces a prim. desalted water when the sea water is pressurised. The sec. unit contains also a reverse osmotic membrane structure having a low desalting ratio, and produces a more desalted water and unconc.

water from the prim. water. (J54083688) (4pp)

HITA D15 67870 A/38 = J8 1035-499
Preventing deposition of scale on electrodialysis membrane - by adding condensed phosphate to soln. under treatment and introducing air into the cell

HITACHI KK 31.01.77-JP-008664

J03 (18.08.81) *J53094-275 B01d-13/02

31.01.77 as 008664 (51KB)

Anion exchange membranes and cation exchange membranes are alternately positioned between an anode and a cathode located in a cell, and a (waste) soln. is introduced into the electrodialysis cell. The improvement comprises adding a condensed phosphate to the soln. to be electrodialysed between the membranes and introducing air to generate air bubbles between the membrane.

The electrodialysis cell is used to conc. or desalt the (waste) soln. (J53094275) (5pp)

NIIG D15 48116 B/26 = J8 1035-502
Ultrafiltration of e.g. bacteria and enzyme - using two membranes, one to remove gel-forming impurities and the other to separate components

NIIGATA ENG KK 28.10.77-JP-129417

J01 (18.08.81) *J54062-980 B01d-31

28.10.77 as 129417 (51DJ)

The method comprises passing a soln., contg. several components to be sepd. and gel forming impurities, through an ultrafiltration membrane which allows passage of the impurities alone; and passing the purified soln. through an ultrafiltration membrane which allows passage of at least 1 of the components to selectively separate the former from the latter. (J54062980) (4pp)

MATU ★ D15 67225 D/37 ★ J8 1035-506
Drink prodn. - by mixing foamable cpd. and acid in water and absorbing carbon dioxide produced (J5 5.9.78)

MATSUSHITA ELEC IND KK 16.02.77-JP-016562

(18.08.81) A231-02 B01f-01

16.02.77 as 016562 (26HM)

Device produces drinking water. A foamable cpd. mixed with an acidic agent is reacted with water to form CO₂ and the gas is absorbed in water to produce the drink. A pot is partitioned into upper and lower chambers contg. water and foamable cpd., respectively. (J53101587) (3pp)

HAYA/ D15 55372 B/30 = J8 1035-520
Treating organic material-contg., bad odour waste water - with a fermented mixt. of fine brown coal powder, waste grain powder water and activated sludge

HAYASHI K 28.11.77-JP-141593

C04 (18.08.81) *J54075-160 + C02f-03/02 C12n-01

28.11.77 as 141593 (117AS)

In treating the waste water, including human waste and waste water discharged from food processing factories, etc., a moist mixt. obtd. by mixing the fine brown coal powder, waste grain powder, water, and activated sludge obtd. from the aeration tank in a food mfg. factory waste water treatment plant is fermented at an internal fermentation temp. of at least 50 deg.C under a solid phase culture condition to give the culture which is mixed with the moist mixt. to effect refermentation under the same conditions to mfr. a fermented prod. The fermented prod. is then mixed with water to make a paste which is added to waste water to be treated.

Method effectively and simply treats waste water and also completely deodorises excess sludge which can be used as fertiliser. (J54075160) (5pp)

YAWA D15 33270 W/20 = J8 1035-616
Recovery of iron from weakly acidic waste water

NIPPON STEEL CORP 05.06.73-JP-062552

E31 M24 (18.08.81) *J50010-797 + C01g-49/10 C02f-01/42

05.06.73 as 062552 (BZ)

In regeneration of cation exchange resins by HCl after removing Fe from waste water I, Fe was recovered by contacting cation-exchange-resin-regenerated-waste water II with Fe to remove free acid, then with Cl₂ gas to oxidise Fe to FeCl₃. Thus, 150 l./min. I contg. 75 ppm Fe was treated with cation exchange resin to give waste water with less than 1 ppm Fe, the cation exchange resin was regenerated with 18% recovered HCl to give II contg. Fe 1.5%, and HCl 13%, 3 ton of which was concd. in an Fe reactor, and Cl₂ was blown through for 8 hr to give 2.4 ton 38% FeCl₃. (J50010797). (4pp)

BORI/ ★ D15 67284 D/37 ★ SU-789-389
Sulphamic acid prepn. - by gas-phase reaction of sulphur trioxide, ammonia and nitrogen in presence of recycled intermediate prod.

BORISOV V M 30.10.78-SU-679537

E36 (23.12.80) C01b-21/08

30.10.78 as 679537 (1511GW)

Sulphamic acid, used for the removal of calciferous sediments from boilers, is mfd. by gas-phase reaction of SO₃ and NH₃, followed by hydrolysis. The process is intensified at the expense of the increased heat-elimination, achieved by the introduction to the reactor of: SO₃ and NH₃ at 120-350 deg.C. and 1-30 atm. pressure, 0.1-10 kg N₂ at the rate 10-250m/s, and in the presence of returned proportion of 0.5-100g. per 1 kg. of the intermediate prod. The feed-back, in the form of an aq. suspension is injected into the reactor with the circulating N₂. (2pp)

UFPE = ★ D15 67291 D/37 ★ SU-789-400
Phenol removal, from aq. petroleum and solid fuel processing waste - by extraction with light catalytic gas oil, to improve degree of purifcn.

UFA PETRO PROC WKS 27.11.78-SU-688890

E14 H05 (25.12.80) B01d-11/04 C02f-01/26

27.11.78 as 688890 (314GW)

Phenol is removed aq. petroleum and solid fuel processing effluents by extraction with a light catalytic gas oil. A high degree of sepn. is achieved.

In an example, 100 mls. of water from a catalytic cracking process abd containing 1080 mg./l. of phenol is treated 3 x 250 ml. portions of a light catalytic gas oil. The degree of phenol removal is 99.9%. Bul. 47/23.12.80. (2pp)

KMIN = ★ D15 67292 D/37 ★ SU-789-401
Organic cpds. removal from aq. effluents - using modified pollucite as adsorbent

KAZA MINERAL ORES 03.11.78-SU-680513

(23.12.80) C02f-01/28

03.11.78 as 680513 (314GW)

Aq. process effluents are treated to remove organics using an adsorbent comprising waste prod. from the HCl treatment of pollucite, modified with an acid-salt soln. A pref. waste prod. has an SiO₂/Al₂O₃ ratio of 4-4.3. The method provides a high degree of purification.

The adsorbent is obtd. by treating pollucite with a soln. contg. 250-300 g./l. of CaCl₂ at 90-110 deg.C for 6 hrs. The prod. is then dried and fired at 620 deg.C. (2pp)

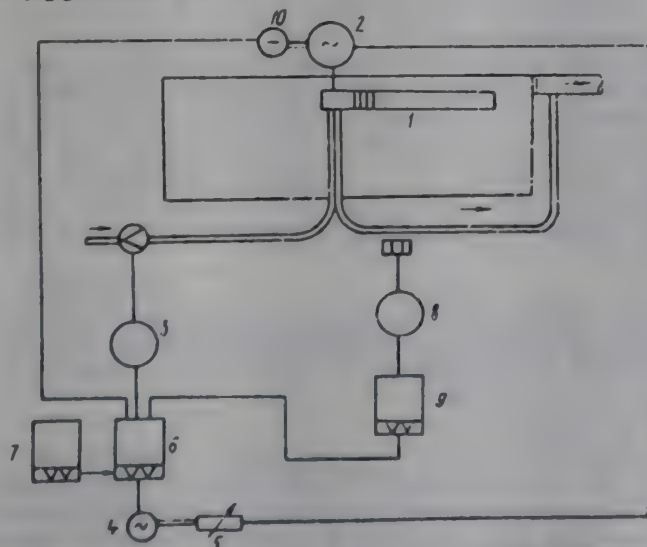
ROST = ★ D15 67293 D/37 ★ SU-789-402
Settling tank aq. effluent clarification control appts. - has clarified water turbidity meter with output to extremal regulator to correct relation between inflow and trough rotational speed

ROSTOVSKII VODOKANA 19.02.79-SU-726967

T06 (25.12.80) C02f-01/34 G05d-27

19.02.79 as 726967 (840GW)

Appts. for controlling clarification of liq. in a settling tank with collecting-distributing troughs (1) and contg. the motor (2), flow-rate meter (3), actuator (4), speed setter (5), proportional regulator (6), setter (7) and tachogenerator (10) is made more accurate in the treatment of aq. effluent for pollution control. By introducing a clarified water turbidity meter (8) and extremal regulator (9), the trough rotational speed is related to the liq. flow-rate since the quality of clarification is monitored. Bul. 47/23.12.80. (3pp Dwg. No. 1)



WASU ★ D15 67295 D/37 ★ SU-789-403
Removal of surfactants from aq. effluents - by treatment with calcium chloride followed by electro-coagulation

KHARK WATER SUPPLY 22.09.78-SU-665175

(D25) (30.12.80) C02f-01/46

22.09.78 as 665175 (314GW)

Aq. effluents from the prodn. of detergent powders are treated with remove surfactant contaminants by: treating with CaCl₂ and electro-coagulating the resulting suspn. at a current density of 0.010-0.12 a./sq.cm. For 15-20 mins. in the presence of a soluble electrode. The method provides a high degree of purifcn. and prevents passivation of electrodes. (3pp)

WATE = ★ D15 67296 D/37 ★ SU-789-411
Purifcn. of aq. effluent - by coagulating with ferrous salt aerating, flocculating with activated mud and biological oxidn.

WATER PURIF STORE 20.11.78-SU-685455

(23.12.80) C02f-01/54

20.11.78 as 685455 (314GW)

Aq. effluents contaminated with organic and mineral materials are purified by: adding a ferrous salt coagulant; aerating the mixt.; adding an activated mud flocculant; settling; separating the sediment; and biological oxidn. The aeration step pref. comprises supplying 2-4 cu.m. of air per cu.m. over 15-20 mins. The method is simple and provides a high degree of purification. (3pp)

LEPR = ★ D15 67297 D/37 ★ SU-789-412
Hexa:valent chromium and cyanide removal from aq. waste - by treatment with chemical reagents and subjecting mixt. to turbulent and laminar flow conditions

LENGD PROMSVYAZENER 02.10.78-SU-668271

M11 (23.12.80) C02f-01/58

02.10.78 as 668271 (314GW)

Chromium- and cyano-contg. waste streams, esp. aq. effluents from the prodn. of galvanised coatings, are purified by treating with a chemical reagent and subjecting the treated water in a reactor to successive turbulent and laminar flow conditions. The reagent is added to the reactor during the turbulent flow and the period of laminar flow is sufficient to displace from the reactor the purified vol. of water.

A residual amt. of chemical reagent remains in the purified water in the laminar flow regime given by the formula: $C(\text{res.}) = V(1)t(2)C(\text{init.})/t(1)t(2)V(2)k$, where $C(\text{res.})$ is residual concn. of the reagent; $t(1)$ is time in laminar flow; $t(2)$ is time in turbulent flow; $C(\text{init.})$ is max. concn. of the pollutant species; $V(2)$ the vol. of purified water; and k is a coefft. of the excess reagent. K is 0.05-0.5 and in the ratio of pollutant species in the water to total active material in the reagent.

The method is simple and provides an enhanced degree of purifcn. (4pp)

RAKC/ ★ D15 67299 D/37 ★ SU-789-413
Purifcn. of fluorine-contg. aq. effluents - by treatment with calcium hydroxide, fluosilicic acid and then further calcium hydroxide

RAKCHEEVAL V 09.11.78-SU-682427

(23.12.80) C02f-01/58

09.11.78 as 682427 (314GW)

F-contg. aq. effluents from fluoride salts prodn. are purified by treatment with Ca(OH)₂ to pH 6.0-7.0; treatment with fluosilicic acid (I); and then further treatment with Ca(OH)₂. A high degree of F-contg. pollutant removal is achieved. Pref. (I) is an aq. effluent from a phosphoric acid extraction process; it is added pref. in an a ratio of 2-15:1 to the aq. effluent being treated. (3pp)

VOLG = ★ D15 67301 D/37 ★ SU-789-415
Concn. of sulphate effluent from synthetic fatty acid prodn. - involves mixing effluent with soap glue and spraying mixt. onto a soap melt

VOLGODONSK SURFACE 10.11.78-SU-685370

E17 (23.12.80) C02f-01/58

10.11.78 as 685370 (314GW)

Concentration of sulphate effluent from the prodn. of synthetic fatty acids involves cooling and feeding 40-60% of the effluent in the technological cycle to soap melt ungluing stages. In order to exclude neutralisation stage, the returned waste is mixed with soap glue in ratio of 1:10-5 and sprayed over the soap melt. The method is simple and avoids the need for a neutralisation step. (3pp)

DNEP = ★ D15 67302 D/37 ★ SU-789-416
Removal of aluminium cpds. from aq. effluents - by treatment with water, glass, milk of lime and carbon dioxide to form a useful solid by-product

DNEPRODZERZHINSK IN 19.12.78-SU-731784
(23.12.80) C02f-01/58

19.12.78 as 731784 (314GW)

Aq. effluents contg. Al cpds. and resulting from organic syntheses are purified by: adding Na silicate, pref. water glass in an amt. 1-2 vol.%; treating with milk of lime; and bubbling with CO₂. A high degree of purificn. is achieved and the ppte. recovered may be further utilised by e.g. calcining and using as a raw material in the prodn. of structural material, e.g. high-alumina cement. (2pp)

LEPI = ★ D15 67303 D/37 ★ SU-789-417
Purificn. of zinc- and barium-contg. aq. effluents from lithopone mfr. - with recycle of precipitated zinc and barium salts to lithopone synthesis stages

LENGD PIGMENT RES 31.01.79-SU-719273
E32 G01 (E33) (23.12.80) C02f-01/62

31.01.79 as 719273 (314GW)

Aq. effluents from the prodn. of lithopone contaminated with Ba and Zn ions are purified by separate pptn. with solns. of Na sulphate and Ba sulphide respectively. The pptes. obtd. (contg. Ba and Zn cpds.) are returned to the lithopone synthesis. A high degree of purificn. is achieved with economic use of the recovered Ba and Zn salts. (3pp)

WASU ★ D15 67304 D/37 ★ SU-789-418
Acid-alkali aq. effluent neutralisation control appts. - has ph meter at reactor input and connected via positioning unit and delay circuit to control feed without onset of self-oscillation

WATER SUPPLY HYDROGEOL 14.02.79-SU-724258
J04 T06 (23.12.80) C02f-01/66 G05d-27

14.02.79 as 724258 (840GW)

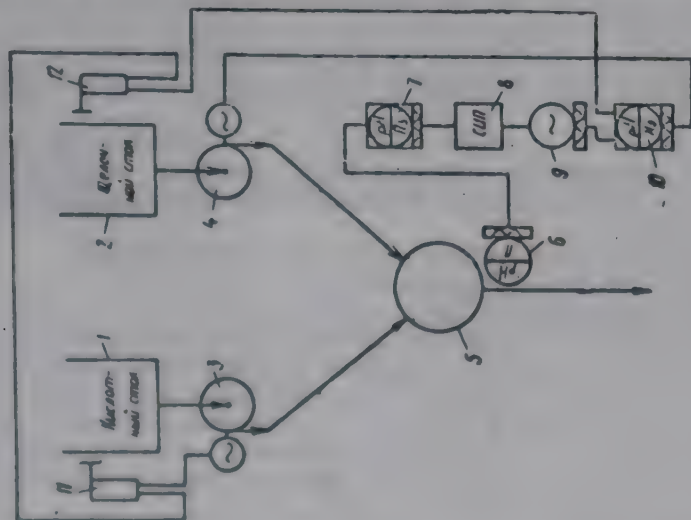
Acid-alkali aq. effluent neutralisation control appts. contains a pH-meter at the output of a reactor and coupled via a regulator to acid and alkali feed controllers. It is free from self-oscillation in the system, and reagent consumption is reduced 30%. By introducing another pH-meter at the input to the reactor, positioning unit, delay circuit and signalling unit for closure of the controllers, acid and alkali are no longer wasted in cross-neutralisation in self-oscillation. Bul. 47/23.12.80. (2pp)

WASU ★ D15 67305 D/37 ★ SU-789-419
Aq. effluent neutralisation control appts. - has level signalling units in acid and alkali drain storage devices for use of constant throughput pumps as regulating device

WATER SUPPLY HYDROGEOL 14.02.79-SU-724259
T06 (23.12.80) C02f-01/66 G05d-27

14.02.79 as 724259 (840GW)

Effluent neutralisation control appts. includes acid (1) and alkali (2) drain storage devices with a regulating device, mixer (5), pH-meter (6) and the isodromic regulator (10). It has a wider range of adjustment for automatic cross-neutralisation of the flows. By introducing a three-position regulator (7), pulse-type interrupter (8), motor-type integrating unit (9) and upper (11) and lower (12) signalling units, the regulating part can be constant-discharge pumps (3,4) with up to 60% saving in neutralising agents and protection in an emergency. Bul. 47/23.12.80. (3pp Dwg. No. 1)



IOFF/ ★ D15 67306 D/37 ★ SU-789-420
Organic cpds. removal from petroleum processing aq. waste - by oxidn. with air at elevated temp. and pressure in presence of a supported noble metal catalyst

IOFFE II 05.06.79-SU-774752

H05 (23.12.80) C02f-01/72

05.06.79 as 774752 (314GW)

Aq. effluents from petroleum processing and petrochemical industries contg. organic cpds. are purified by liq. phase oxidn. with an O₂-contg. gas at elevated temp. and pressure in the presence of a supported Pt, Pd or Re catalyst. The mol. ratio of water to O₂ is 400-2400:1 and the catalyst comprises a hydrophobic carrier.

The process results in a high degree of purificn. Pref. catalyst carriers are activated C, chamotte, a zeolite, corundum and porous porcelain. The pref. process temp. is 160-200 deg.C. (3pp)

MOST ★ D15 67307 D/37 ★ SU-789-421
Removal of phenol(s) from aq. effluents - by ozonisation in presence of zinc oxide-chromium oxide-copper oxide catalyst

MOSCOW STEEL ALLOYS INST 21.11.78-SU-687358

E14 (23.12.80) C02f-01/78

21.11.78 as 687358 (314GW)

Phenols are removed from industrial aq. effluents by ozonisation in the presence of a ZnO-Cr₂O₃-CuO catalyst. A high degree of phenol removal is achieved.

In a countercurrent ozoniser contg. grains of a ZnO-Cr₂O₃-CuO catalyst, aq. waste contg. 240 mg./l. of phenols is contacted with air contg. 0.37 vol.% O₃. The amt. of catalyst present is 0.5 wt.% of the working vol. of water. At water throughputs of 0.3-0.15 l./hr. the degree of phenol removal is 43-99%. Bul. 47/23.12.80. (2pp)

AKCH = ★ D15 67308 D/37 ★ SU-789-422
Biochemical purificn. of aq. effluents - in presence of sodium or ammonium cetyl phosphate as biological oxidn. stimulator

AS KAZA CHEM INST(KAZG =) 11.12.78-SU-695668

(D13) (23.12.80) C02f-03/02

11.12.78 as 695668 (314GW)

Aq. effluents from food processing are purified biologically in the presence of Na or ammonium cetyl phosphate as bio-oxidn. stimulant. The stimulant is present pref. in an amt. 0.001-0.01 wt.%. The stimulant has the formula: C₁₆H₃₃-OP(O)(OX)₂, where X is Na or NH₄. (3pp)

GUDK/ ★ D15 67309 D/37 ★ SU-789-426
Biochemical removal of nitrate(s) from aq. waste - is carried out in presence of a magnetic field to enhance rate of process

GUDKOV LV 03.11.78-SU-680441

(23.12.80) C02f-03/28

03.11.78 as 680441 (314GW)

Removal of nitrates from industrial waste streams is carried by mixing the stream with domestic waste water and denitrating biochemically in the presence of a magnetic field, pref. of intensity 10-80 Oe. The use of a magnetic field enhances the rate of de-nitration and reduces losses of activated mud. (2pp)

REZN/ ★ D15 67310 D/37 ★ SU-789-427
Purificn. of aq. waste from aniline-dye processes - by treating with active mud, neutralising, biological purificn., ozonising or adsorbing, biological denitration and ion-exchange filtering

REZNICHENKO V V 29.01.79-SU-718196

E24 (23.12.80) C02f-03/30

29.01.79 as 718196 (314GW)

Aq. effluents from the aniline dye industry are purified by: treating with activated mud, such that the mud is denatured; neutralising with an alkali; clarifying; biologically purifying in a two-stage process; ozonising or adsorbing, e.g. with activated carbon; denitrating in a sectioned biological reservoir; and subjecting to ion-exchange treatment. The water is highly purified and can be returned to the public water supply. (3pp)

WASU ★ D15 67311 D/37 ★ SU-789-429
Biological purificn. of aq. waste - by contact with micro-algae in series of flow reservoirs of diminishing depth

TASHK WATER SUPPLY 18.01.79-SU-714965

(23.12.80) C02f-03/32

18.01.79 as 714965 (314GW)

Waste water from domestic, food and chemical, etc., processes is purified in sectional flow reservoirs of decreasing depth, in contact with microalgae. The water is divided into two streams in a ratio of 1:3-4 and the first is held in a contact reservoir for 4-5 days. It is then mixed with the second stream and the combined stream is treated in the reservoirs in two stages: in the first it is contacted with microalgae for 4-5 days at a depth of 2.5-1.5m; and in the second in contact with higher water flora for 1-2 days at a

Depth of 1.5-1m.

The method enhances the degree of purification, reduces the overall process time, increases the hydraulic loading, achieves year-round stability in sanitation standards and is low in cost. (6pp)

VOLG = ★ D15 67312 D/37 ★ SU-789-430
Biochemical purification of synthetic fat substitutes mfr. aq. wastes using *Bacillus danicus* and *platychoma* and *Bacterium aliphaticum* microorganism strains

VOLGODONSK SURFACE 05.01.79-SU-708071

E17 (23.12.80) C02f-03/34

05.01.79 as 708071 (314GW)

Aq. effluents from the prodn. of synthetic fat substitutes are biochemically purified under aerated conditions using an activated mud contg. bacterial strains *Bacillus danicus*, *Bacillus platychoma* and *Bacterium aliphaticum*. The concn. of mud in the effluent is 5-6.8 g./l. The mud requires a shortened period of aeration and has enhanced oxidising power. (3pp)

UCOA = ★ D15 67313 D/37 ★ SU-789-431
Solvent for removing heat exchanger scale - comprises ammoniated supernatant water from by-product of coke industry

UKR COAL TAR INST 04.11.78-SU-680584

G04 (23.12.80) C02f-05

04.11.78 as 680584 (314GW)

Heat exchanger appts. scale is removed using as solvent the ammoniated supernatant water from the gas collector cycle in the by-product coke industry. The water has a compsn. (in mg./l.): free NH₃ 490-1460, bound NH₃ 8000-15000, free phenol 900-1200, H₂S 250-350, thiocyanates 1200-1700, cyanides 15-40, chlorides 16000-30000, sulphites 1000-1300 and Ge 8-15. The solvent is esp. useful for boilers with galvanised surfaces. (3pp)

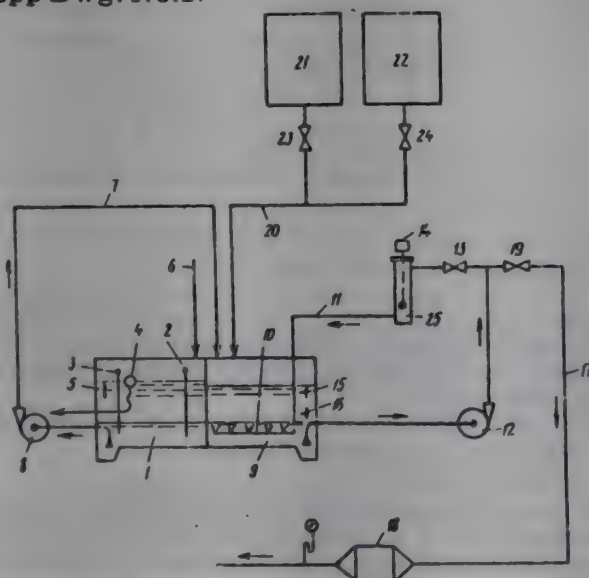
USHA/ ★ D15 67314 D/37 ★ SU-789-432
Automated aq. effluent treatment plant - has concn. sensor mounted on circulation pipe communicating with reactor bubbling tube and to control reagent and drain valves

USHAKOV VA 20.12.78-SU-698871

T06 (23.12.80) C02f-05/02 G05d-27

20.12.78 as 698871 (840GW)

Automated plant for rendering aq. effluents harmless contains a store (1), reactor (9) with bubbling tube (10), reagents feed unit with tanks (21,22), overflow pipe (17) and a drain concn. sensor. The plant is used for regulating the feed of the reagents in the treatment of acid-alkali effluents at motor-transport undertakings, and can be used in the chemical and petrochemical industry. By mounting the concn. sensor (14) on a circulation pipe (11) communicating with the bubbling tube, allowance can be made for inhomogeneity of the medium being measured. Bul. 47/23.12.80. (3pp Dwg. No.1)



SIPE = ★ D15 67315 D/37 ★ SU-789-433
Salt sedimentation prevention in oil-field equipment - using aq. soln. of polyacrylamide-N-alkylene-N' di(methyl-phosphonic acid)

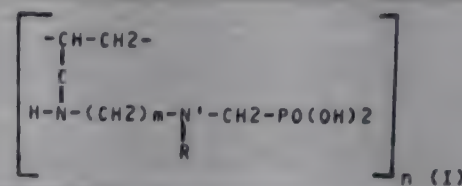
SIBE PETRO IND INST 10.11.78-SU-686680

A07 H01 (23.12.80) C02f-05/14

10.11.78 as 686680 (314GW)

Agent for preventing the sedimentation of alkaline earth metal carbonates and sulphates in oil field equipment etc. comprises polyacrylamide-N-alkylene-N'-(di)methyl-phosphonic acid of formula (I). In the formula m is 2 or 6 and R is H or -CH₂PO(OH)₂.

The agent is added to aq. streams and deposits, and provides a high degree of sedimentation prevention. (2pp)



UWAT = ★ D15 67317 D/37 ★ SU-789-435
Purification of aq. waste from prodn. of rolled felt - by saturation with chlorine, electro-coagulation, neutralisation and pressure flotation

UKR WATER ENG INST 05.12.78-SU-703736

F07 (23.12.80) C02f-09

05.12.78 as 703736 (314GW)

Aq. effluent from the prodn. of rolled felt material is purified by: saturating with Cl₂; electro-coagulating in an acid medium; neutralising with lime; and subjecting to a pressure flotation. The method ensures a high degree of purification and removal of grease, suspended matter, dyes, fibres, oils and synthetic surfactants. Neutralisation is carried out up to pH 8-9. (3pp)

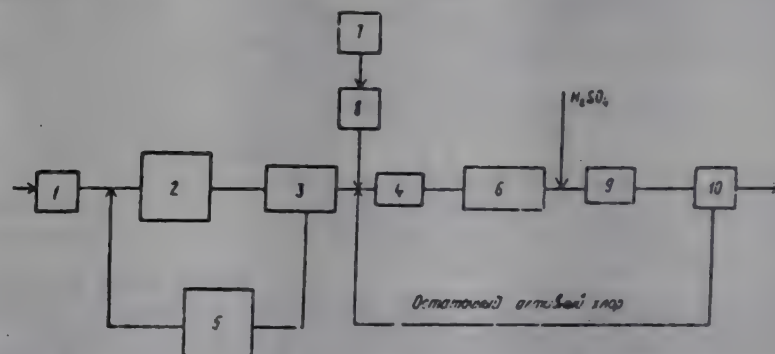
GOEN = ★ D15 67318 D/37 ★ SU-789-436
Knitting industry dye-finishing plant effluent treatment unit in which sulphuric acid is mixed with liq. from electro-flotation unit for eddy chamber dechlorinator which returns chlorine to mixer

GORKI ENG-CONS INST 26.12.78-SU-705170

F06 J01 (23.12.80) C02f-09

26.12.78 as 705170 (840GW)

Effluent treatment unit contg. a fibre trap (1), averager (2), electroflotation unit (3), mixer (4), foam-treatment unit (5), contact tank (6), electrolytic cell (7) and dosator (8) has provision for redn. and utilisation of the residual active chlorine content of the water. Introduction of the mixing device (9) and reconstruction of the dechlorinator (10) in eddy-chamber form enables the oxidative capacity of residual active chlorine to be used for a 15-20% improvement of the degree of purification. (3pp Dwg. No. 1)



LEEN = ★ D15 67319 D/37 ★ SU-789-437
Decolourisation of dyeing and finishing aq. waste - by acidifying and contacting with iron filings in presence of ultrasonic field

LENGD ENG-CONS INST 13.12.78-SU-733248

F06 (23.12.80) C02f-09

13.12.78 as 733248 (314GW)

Aq. waste from dyeing and finishing processes is clarified by: acidifying; contacting the acidified stream with Fe filings while subjecting to an ultrasonic field; treating with alkali; and allowing to settle out. The use of an ultrasonic field enhances the degree of decolourisation and intensifies the process. (3pp)

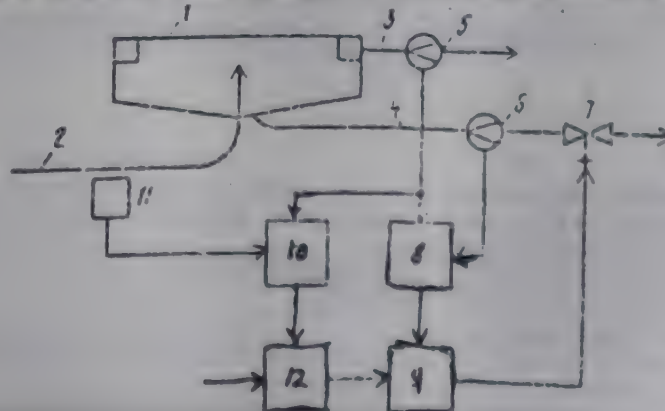
WASU ★ D15 67320 D/37 ★ SU-789-439
Sewage settling tank sludge discharge control appts. - has output from sludge index setter to functional converter at input to computer controlled setter to correct relative flow

WATER SUPPLY HYDROGEOL 15.01.79-SU-715854

T06 (23.12.80) C02f-11 G05d-27

15.01.79 as 715854 (840GW)

Appts. for sewage settling tank sludge discharge control contains treated water (5) and sludge (6) flow-rate meters connected via



ratimometer (8) to a regulator (9) for an sludge discharge actuator (7). It provides improved treatment when there is considerable variation of the effluent flow-rate. By introducing a functional converter (10), sludge index setter (11) and computer-controlled setter (10), the set relation between treated water and sludge flow-rates is corrected according to the settling capacity of the incoming effluent. Bul. 47/23.12.80. (2pp Dwg. No. 1)

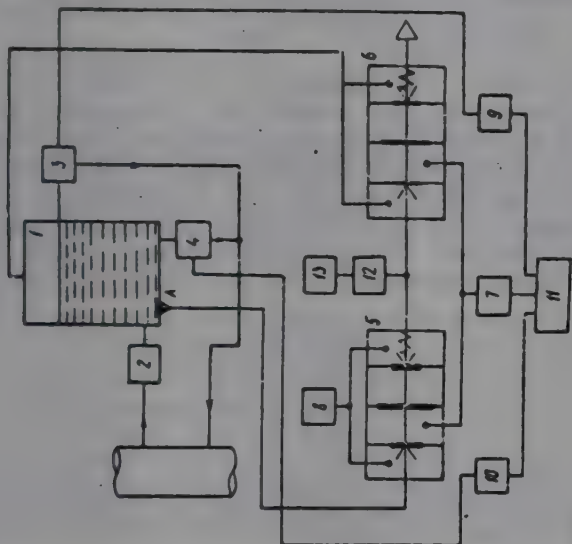
FOOD = ★ D15 67518 D/37 ★ SU-789-697
Aq. effluent benzene content monitor - has electronic programmer sequencing pneumo controlled valves for filling and sealing bubbling column to stabilise air flow through sample

FOOD IND AUTOM DES 18.12.78-SU-697725

E14 J04 T06 (25.12.80) C02f-01/28 G01n-01/10 G05d-27

18.12.78 as 697725 (840GW)

Unit for measuring benzene content in aq. waste contains a bubbling column (1) with compressed air supply (A), sample return valve (4), three-membrane pneumo-relays (5,6), air flow regulator (8), measurer (12) and recorder (13). It has greater accuracy in determin. of traces of benzene (solvent) e.g. in the foodstuff and chemical industries. The cumulative effect of introducing a programmer (11) with electropneumo-converters (7,9,10) and column filling (2) and sealing (3) pneumo-controlled valves stabilises the air flow through a sample of stable volume. Bul.47/23.12.80. (3pp Dwg.No. 1)



ALUM- D15 80738 B/44 #SU-791-218
Sedimentation tank rake - with transverse blades on radial arm articulated via link rods to radial booms to reduce loading

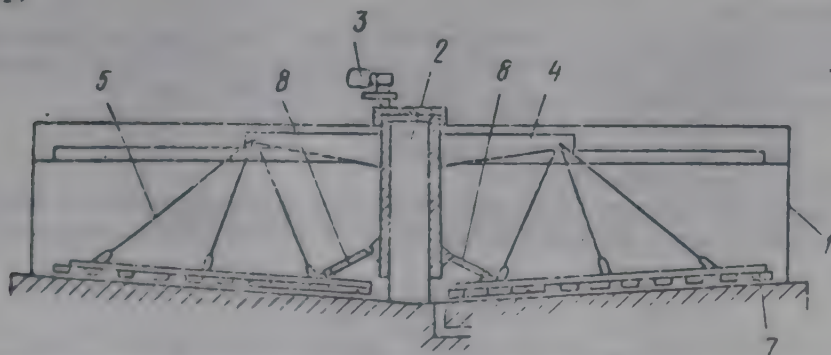
ALUMINIUMIPARI TERV 19.10.78-US-952931 (09.12.78-SU-701453)

(23.12.80) *US4172-040 + C02f-01/52

09.12.78 as 701453 (1512WD)

The scraper removes deposits and sediments from thickeners. Mobile levers fixed to the scrapers take into account the angular strain produced thus improving efficiency and diminishing the fracturing of the scraper brackets near the axis of rotation where the deposits accumulate.

The appts. uses levers (8) at an acute angle with end hinges fixed to the vertical shaft (2) and scraper brackets (6). The driving brackets (4) are connected by rods (5) to the scraper brackets (6) and scrapers (7). These parts and the driver (3) are in a casing (1). (2pp)



AUPH = ★ D15 67552 D/37 ★ SU-791-391
Crystallisation apparatus for sea and salt water desalination - with settling tanks and separation column, melter for ice crystals, and washing equipment

AS UKR PHYS CHEM 04.01.79-SU-707047

J01 (02.01.80) B01d-09 C02f-01/22

04.01.79 as 707047 (29MI)

Principal module for a crystallisation distillation apparatus for sea and salt water, made as a horizontal body with semicircular lid. Located in the upper part of the body is a separation column

and melter divided by vertical walls and horizontal partitions into sections, crystalliser, and settling tank for the distilled water. Expenditure on repairs of the equipment is reduced, servicing is guaranteed, and metal content is reduced, by providing the separation column with a deflecting baffle plate in its upper part the working surface of which points towards the melter. The baffle plate has holes for wash water. (4pp)

JENP D15 83778 V/48 = SU-791-607
Making cyanide-contg effluent safe - by giving temp shock at 200-250 deg C 40-150 atmos

JENAPHARM VEB 10.05.73-DD-170844

(30.12.80) *NL7406-254 C02f-01

08.05.74 as 023362 (GW)

Water is heated electrically to 250 deg. C fed to a heat exchanger, and the remainder of the equipment to preheat it. Then the heater is switched off and the effluent fed in place of water. After passing through the heat exchanger, concd. sulphuric acid is dosed in and the streams are mixed in a spray nozzle. The pH is held more than 7. The temp. rises at that point from 150-230 deg. C. The soln. passes through the other side of the heat exchanger and is now safe to drain. Bul.48/30.12.80. (3pp)

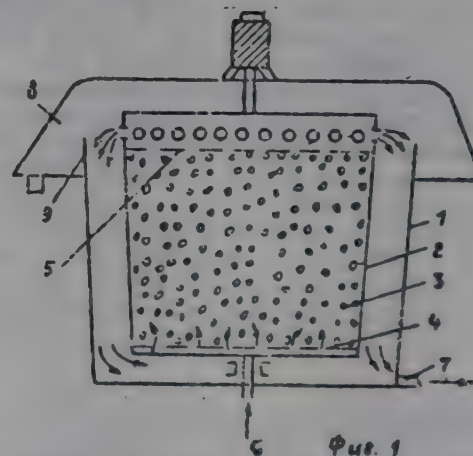
KHVO = ★ D15 67614 D/37 ★ SU-791-609
Separating insoluble liquids e.g. petroleum products, from water - by filtration through flexible polyurethane inside chamber, with regeneration of filter by spinning

KHARK VODGEO WATER 13.12.78-SU-698182

H05 J01 (30.12.80) C02f-01

13.12.78 as 698182 (29MI)

Equipment for separating insoluble liquids from water, during the purification of industrial effluents, e.g. containing petroleum products, as used in the petroleum-refining, petro-chemical and other industries, has body (1) inside which is a chamber (2) containing filter material (3), pipe (6) to admit the liquids and attachment for releasing the clean water and the regenerate. Operational effectiveness is increased, on account of improving the conditions for regenerating the filter material, by making the chamber as an inverted truncated cone with perforations. The clean water, etc. removal attachment comprises a trough with overflow walls (8). The perforations in the cone are placed at the level of the upper edge of the trough's walls, while the pipe to admit the liquid to be purified is disposed underneath the chamber (2). (2pp Dwg.No.1)



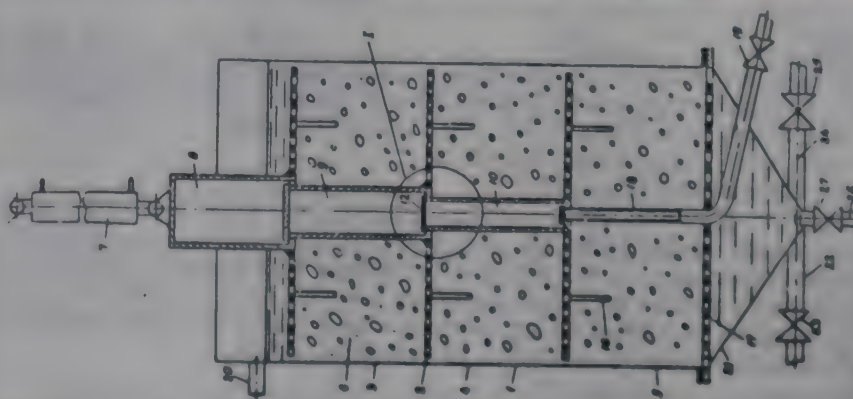
WATE = ★ D15 67615 D/37 ★ SU-791-610
Effluent cleaning filter - has vertical body divided into sections by horizontal perforated partitions which are rotated with central telescopic outlet pipe

WATER CONSERVATION(TRAC=) 24.02.79-SU-728964

J01 (30.12.80) B01d-25/06 C02f-01

24.02.79 as 728964 (29MI)

Filter for cleaning sewage and removal of solid impurities and insoluble liquids (e.g. petroleum products) resulting from mining and industrial establishments, has body (1) divided into sections



(3,4,5) by perforated partitions (2); the sections are filled with filtering material and provided with outlet pipes disposed along the vertical axis of the filter. The operational characteristics of the filter are improved, on account of increasing the regeneration effectiveness, by making the outlet pipes perforated and connected telescopically, with valves at the connecting points. The partitions have supports and the outlet pipes have a rotary drive. (3pp Dwg.No.1)

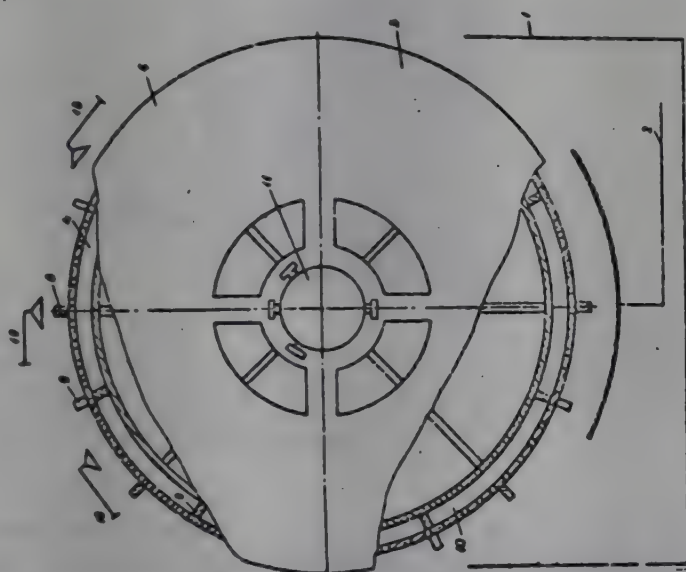
KIRO ★ D15 67616 D/37 ★SU-791-617
Drum electrolyser for cleaning sewage - has drum as one electrode dipping into bath containing liquid and other electrode with removal of residues

LENINGRAD TEXTILE LIGHT 24.04.78-SU-606789

X25 (30.12.80) C02f-01/46

24.04.78 as 606789 (29MI)

Electrolyser for purifying sewage, both industrial and domestic, as well for softening effluents, has bath (1) with electrodes (2,3), one of which is made as a drum which is rotatable. There are pipes to admit and withdraw the electrolyte liquid and a device to remove solid materials from the electrode. To increase the possibility of removing dense and difficult-to-break residues, the electrolyser is fitted with partitions (8) disposed radially inside the drum and dividing it into chambers, communicating with the device for removing the solid phase. This is made as two adjacent discs fitted with holes. One of the discs is mounted on the same shaft as the drum, while the pipes to admit and withdraw the liquid are contained in the other disc. Bul.48/30.12.80. (4pp Dwg.No.1)



AUCT= ★ D15 67617 D/37 ★SU-791-618
Water purifying electrolyser - has electrode chambers filled with ion exchange material for distillate treatment

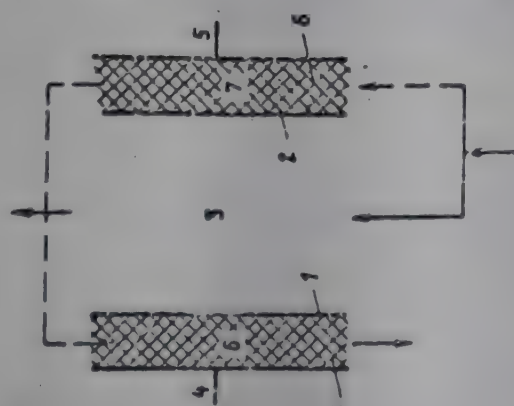
AS UKR COLLOID CHEM 13.12.78-SU-696321

J03 X25 (30.12.80) C02f-01/46

13.12.78 as 696321 (89MI)

High purity water is derived from the distillate in the electrolyser featuring electrode chambers filled with an ion exchange material. The desalting chamber (3) is formed by the cation and anion exchange membranes (1,2) set with a gap of 30mm.

The electrodes chamber (6,7) and the desalting chamber (3) are filled with cation and anion exchange resins taken in a proportion of 1:1. The distilled water is fed to all the chambers while the polarisation due to the electrodes (4,5) ensures that the impurity ions migrate into the electrolyte of chamber (3). Bul.48/30.12.80. (2pp Dwg.No.1)



WATE= ★ D15

67619 D/37 ★SU-791-622

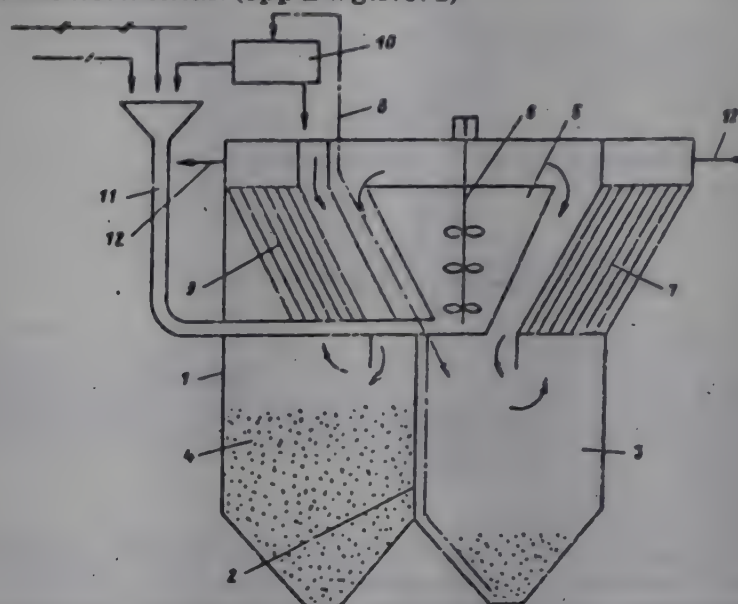
Sewage cleaning installation - has mixing-floc-forming chamber, and settling and thickening chambers, with collection of sloping plates

WATER SUPPLY PURIFI 15.09.78-SU-665490

(30.12.80) C02f-01/52

15.09.78 as 665490 (29MI)

Installation for cleaning sewage, has body (1), mixing and floc-forming chamber (5), settling (3) and residue-thickening (4) chambers. Cleaning effectiveness is increased, as a result of more complete clarification of the sludge-water, by providing the residues-thickening chamber with a thin-layer module, made as a collection of sloping parallel plates, mounted at an angle of 60 deg. to the horizontal. (3pp Dwg.No. 1)



FERM= ★ D15

67620 D/37 ★SU-791-623

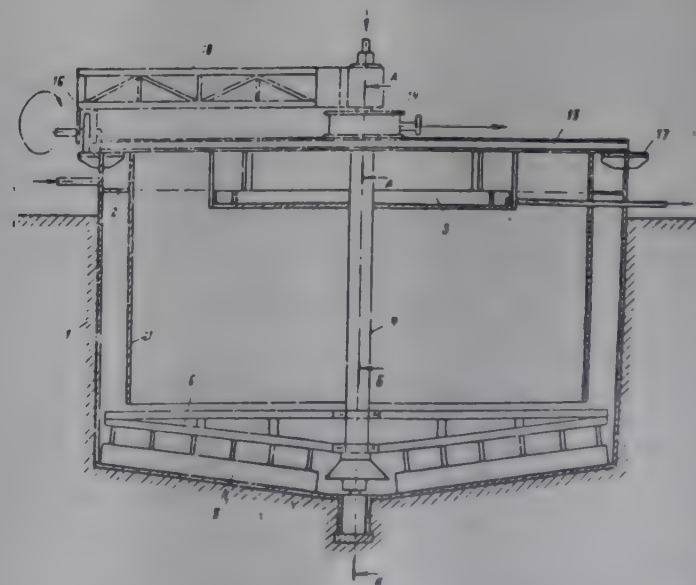
Settling tank for purification of effluents - has hollow shaft containing air pipe with cones at bottom to collect air and make airlift for residue and liquid

FERMENTATION PRODUC 05.01.79-SU-708621

(30.12.80) C02f-01/52

05.01.79 as 708621 (29MI)

Settling tank for the cleaning of effluent liquids, particularly for processing domestic sewage, or effluent from the food industry, has body (1) with inlet (2) and outlet (3) gulleys, sludge pipe, hollow shaft (4) and scraper arms (5), with drive motor. Operational effectiveness is increased, on account of liquefying the precipitate and eliminating the formation of blockages in the sludge-pipe by making holes in the top and bottom parts of the hollow shaft (4) and fitting it with an air-pipe capable of being moved up and down along its axis, plus two upright truncated cones placed one above the other. The smaller diameter of the upper cone is fastened to the lower edge of the air-pipe, while the lower cone is connected by its larger diameter to the lower end of the hollow shaft. (4pp Dwg.No. 1)



DZER= ★ D15

67621 D/37 ★SU-791-624

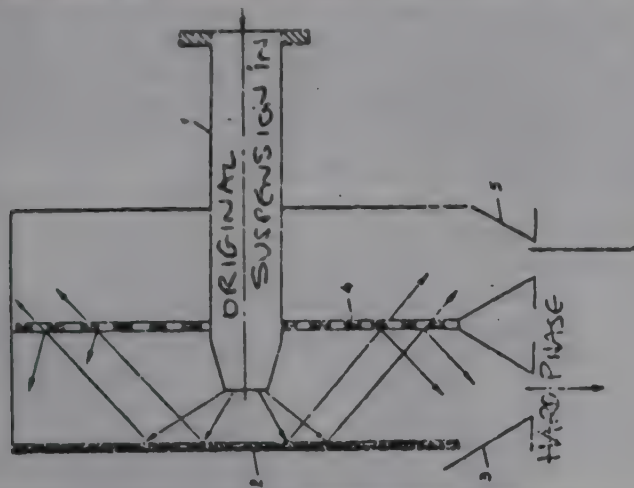
Suspensions separation from paper, rags, etc. processing - by feeding along pipe on to vertical continuous plate and passing deflected water through mesh filter

DZERZHINSK CHEM MAC 15.02.79-SU-728688

(30.12.80) C02f-01/52

15.02.79 as 728688 (29MI)

Method for separating suspensions, e.g. effluents containing fibrous or bark-containing impurities from rag, paper, fibres and other non-flexible materials, by spraying the incoming suspension flow and feeding it on to a filtering mesh. Separation effectiveness is increased as a result of preventing precipitation of coarsely-disperse impurities, by feeding the sprayed suspension on to a vertical partition (2) and directing the reverse flow on to the filtering mesh (4). (2pp Dwg.No.1)

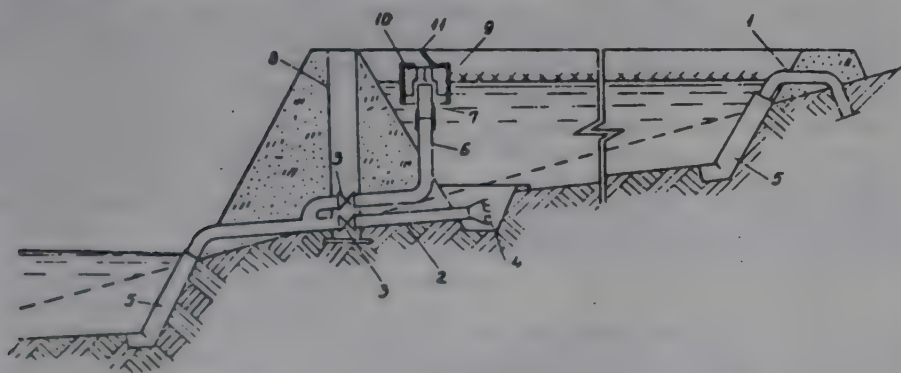


RELE/ ★ D15 67622 D/37 ★ SU-791-625
Pond-clarifier for effluents and sewage - has overflow pipe with heated hood at its upper end to prevent clogging and freezing

RELE G 13.02.79-SU-735550
(30.12.80) C02f-01/52

13.02.79 as 735550 (29MI)

Pond-clarifier for the purification of effluents, particularly effluents discharged from animal-breeding establishments, equipped with highly-productive, short-jet sprinkling machines. Since it contains manures, etc., the effluent has solid and suspended particles, part of which is precipitated on the bottom of the clarifier, and the other part floats to the surface. The equipment consists of the reservoir, inlet (1) and outlet (5) pipes, bottom water-discharge (2) and valves (3) inside a sump (8). Utilisation effectiveness is increased as a result of preventing floating debris from being fed into the water-discharge and also preventing it from freezing, by fitting an attachment to the bottom water-discharge (2) in the form of a vertical overflow pipe (6), with a grating (4) and heated hood (9), the lower level located below the level of the water in the pond. (2pp Dwg.No.1)



SUGA = ★ D15 67623 D/37 ★ SU-791-635
Biochemical purification of sewage installation - has activated sludge feed as multistage pipeline, on which rotating shortened pipes are mounted

SUGAR IND INST 07.07.78-SU-639454
(30.12.80) C02f-03/12

07.07.78 as 639454 (29MI)

Installation for the biochemical purification of effluents (sewage) by aeration with activated sludge, particularly the purification of highly-concentrated discharges from sugar-producing works, consists of rectangular body with vertical screens, and device to supply the activated sludge, the sewage and the air. The cleaning effect is enhanced, as a result of improving the mixing of the sewage with the sludge with additional enrichment with oxygen, by making the device to feed the



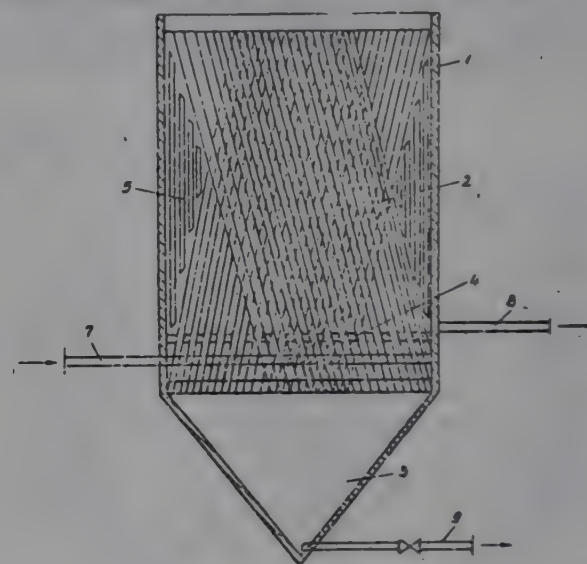
activated sludge as a multistage pipeline (8) on which rotating shortened pipes (10) are mounted. These small pipes are given a curved helical shape and the main pipe (8) gets smaller in diameter in the direction the sludge flows. The pipe also has an injector (13,14) to introduce the air and spherical vanes (9) fastened in two rows. (3pp Dwg.No.1)

LECO = ★ D15 67624 D/37 ★ SU-791-636
Biochemical purification of effluents appts. - has sloping tubes sealed into lower plate, up which liquid passes and overflows for biochemical treatment

LENGD CONS ENG INST 26.12.78-SU-701658
(30.12.80) C02f-03/12

26.12.78 as 701658 (29MI)

Equipment for the biochemical purification of effluents, has cylindrical body (1) with tubular packing (2) arranged inside it, plus a cylindrical reservoir (3) located at the bottom and separated from the packing by an intermediate bottom plate (4). Pipes are provided for admitting the raw effluent and removing the clean liquid and the residues (7, 8, 9). Cleaning effectiveness is increased, due to more uniform distribution of the liquid over the surface of the packing (2), by making the intermediate plate as a tubular panel with the ends of the tubes of the packing sealed into the holes. The top ends of the packing tubes are arranged in the horizontal plane. (3pp Dwg.No.1)

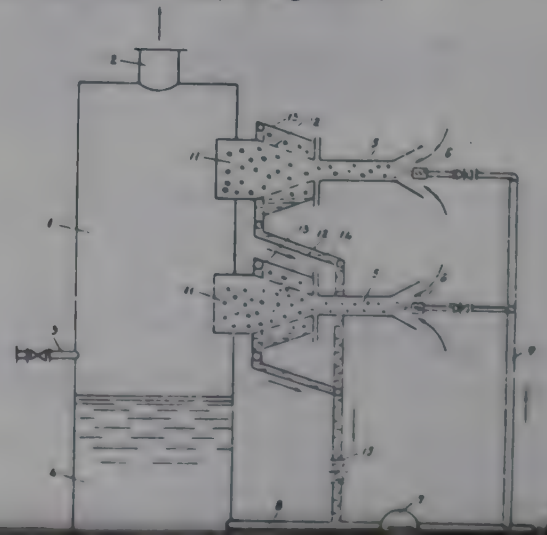


SEME/ ★ D15 67625 D/37 ★ SU-791-638
Air force feeder used for biochemical purification of effluents - has pump with water circulation feeding venturi tubes into which air is drawn and cleaned

SEMENOVSKII YU V 20.03.79-SU-773056
(30.12.80) C02f-03/20

20.03.79 as 773056 (29MI)

Device for the forced delivery of air, into installations for the biochemical purification of effluents, being used in low-productivity aeration plant, has cylindrical body (1) with pipe (3) to admit the circulation water and pipe (2) to convey the delivered air. Venturi tubes (11) are positioned in stages throughout the height of the body and fixed in a position tangentially to it, and have water-feeding sprayers (6) at the entrances, linked to the pump (7). Utilisation effectiveness is increased, on account of increasing the coefficient of injection and heating of the air, by perforating the diffusion tube of the Venturi, with the angle of the mouth equal to 40 deg. Conical chambers (13) are fitted coaxially and they have pipes (14) connected to the suction side of the pump (7), and the pipe (8) going into the pump is also connected to the bottom part of the body. (3pp Dwg.No.1)

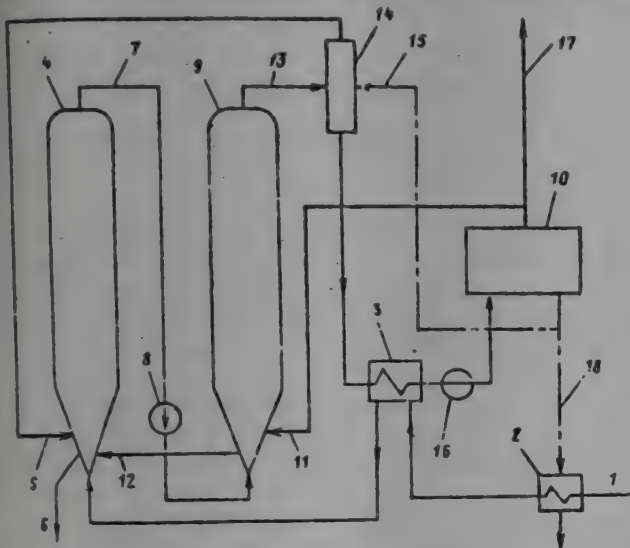


TAV = ★ D15 67626 D/37 ★ SU-791-643
 Thermal softening of water used as steam-generator feed - using two-stage crystallisation of calcium sulphate at increased pressure and temp.

STAVROPOL POLY 27.04.79-SU-759454
 (30.12.80) C02f-05

7.04.79 as 759454 (29MI)

Method for the thermal softening of natural waters, principally those containing a high concentration of calcium sulphate, such as lime-containing ocean and stratal waters, and can be used for the preparation of feed water for steam generators for ordinary and petroleum industries, includes two-stage crystallisation of the calcium sulphate at increased temperature and pressure. The degree of softening is increased, in the case of make-up water for steam generation, by carrying out the second-stage crystallisation with the pressure at a value of 2-5 bar below the pressure in the steam-generator, with the steam heated to the saturation temperature; the softened water is steamed to 1.05-1.1 times and mixed with blown-through water. (3pp Dwg.No.1)



STAV = ★ D15 67627 D/37 ★ SU-791-647
 Cleaning wash-water of steam generators fired by sulphurous oil - by treating with wash water with sodium sulphate, and mixing with regeneration solution from hydrogen cation filters

STAVROPOL POLY 20.03.79-SU-737583
 (30.12.80) C02f-09

20.03.79 as 737583 (132WD)

The process comprises treatments with caustic soda and lime and separation of the deposits thus formed. To reduce the caustic usage and prevent furring-up of the generator, 40-45% of the second alkali treatment stage output water is heated to 32-35 degrees C, for mixing with sodium sulphate and then with make-up water and lime, passage through a bed of glauberite, cooling to 2-10 degrees C, passage through sodium sulphate, and treatment with caustic.

Prof. the make-up water is spent regeneration solution from hydrogen-cation filters. The treatment with lime after saturation with sodium sulphate, and the use in the two-stage cleaning of sodium-sulphate treated solution to a content of 60g/l, gives crystallisation of the sodium sulphate through decrease in its solubility.

Thus, whereas 55-60% of the water is used for washing, the remainder is treated with glauberite to give e.g. a solution with sodium sulphate 400, caustic soda 13.5, calcium sulphate 0.14 g/l, for heating to 5 degrees C. Bul.48/30.12.80.(4pp)

KIFO = ★ D15 67628 D/37 ★ SU-791-652
 Methane tank for biochemical anaerobic treatment of effluent - has electrofilter below magnetostrictive ultrasonic vibrator on gas discharge line

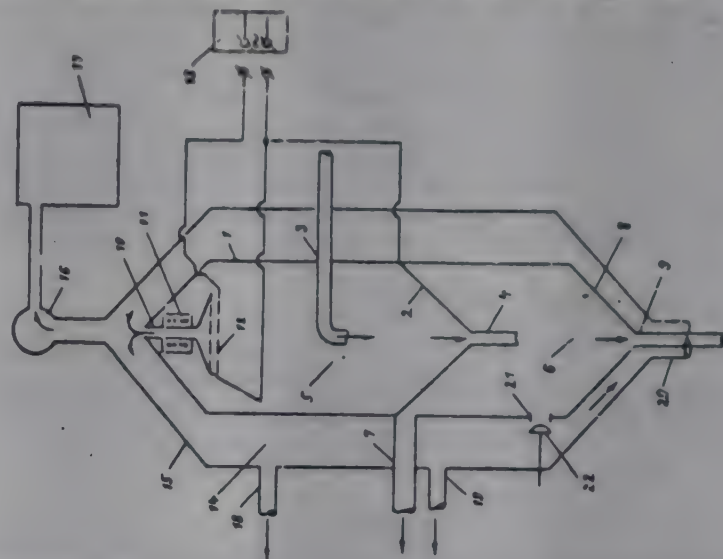
KIEV FOOD IND INST 25.12.78-SU-701391
 X25 (30.12.80) C02f-11/04

25.12.78 as 701391 (132WD)

The tank comprises a cylinder with a conical bottom, fermentation (5) and consolidation (6) chambers, and feed and discharge pipes. To increase separation of fatty impurities and gases, the gas line (10) has an external magnetostriction ultrasonic vibrator (11) above a low-frequency electro-filter (12) with perforated electrodes and an a.c. source (13), the upper electrode being earthed and the lower electrode linked to the phase line of the a.c. source.

The vibrator reduces the viscosity and friction, and also eliminates foam and gas accumulation. The concentrating bottom (2) leads to the sludge discharge (9) and clean-water line (7). Lock (22) is opened to correct any lack of proportion between the foam (10) and sludge (4) line flows and the volumes of the corresponding chambers (14,6). The fat from the electro-filter is

heated to 40-80 deg. C, and the low loading in chamber (5) (1mV/cm, 1 A/cm²) increases the fermentation by a factor of 2-3. The field strength in the electrofilter is 5-100 V/cm, based on a frequency of 50-22000 Hz. Bul.48/30.12.80. (3pp Dwg.No.1)

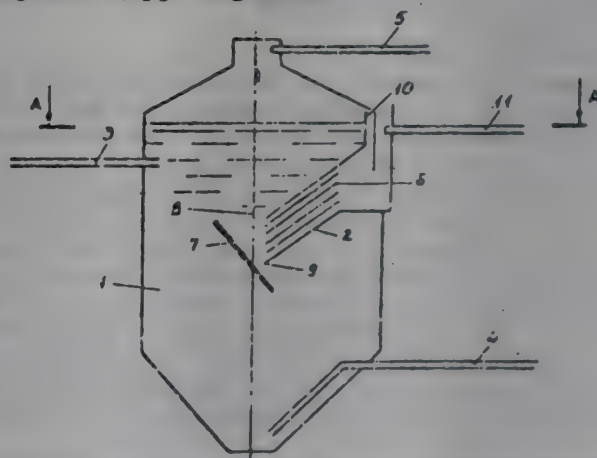


GOCO = ★ D15 67629 D/37 ★ SU-791-653
 Humus tank for purification of sewage by fermentation - has cylindrical body and thin-walled container with sloping plates for increasing sludge treatment effectiveness

GORKI CONS ENG INST 26.02.79-SU-729483
 (30.12.80) C02f-11/04

26.02.79 as 729483 (29MI)

Humus tank, used for purification of sewage, where sewage is allowed to ferment, has cylindrical storage tank (1) with inlet and outlet pipes (3,4,5,11), plus a thin-walled container (2) to hold the anaerobic sludge. The fermentation process is intensified, on account of reducing the carryover of the sludge, by providing the thin-walled container (2) with a collection of sloping parallel plates (6) and a screen (7) mounted at a distance and an acute angle to the plates. (2pp Dwg.No.1)

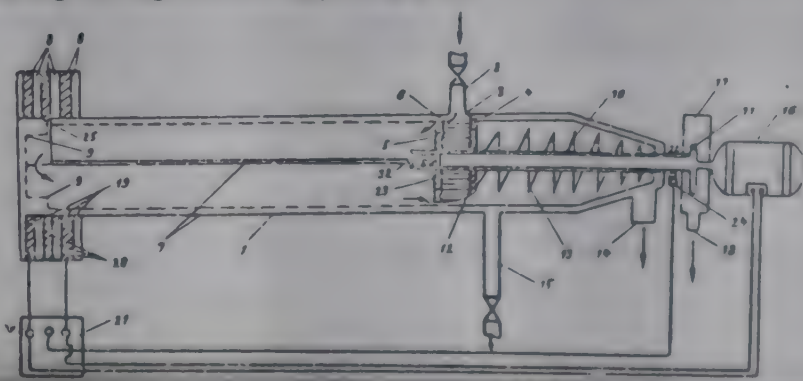


KUCH/ ★ D15 67630 D/37 ★ SU-791-655
 Suspensions heat treatment appts. - has counterflowing heated suspension and perforated annular receiving chamber under inlet pipe, for drying via a worm

KUCHERENKO GS 13.09.78-SU-663460
 (30.12.80) C02f-11/12

13.09.78 as 663460 (132WD)

The installation comprises a cylinder with inlet and outlet pipes, a mixer on a shaft with a drive, and heating elements 8. To give heat regeneration and pulsed heat transfer, the mixer is made as a plane partition 7 on the shaft 10, and an annular receiving chamber 3 under the inlet pipe 2 consists of a set of two transverse partitions 4,5 on the shaft and, perforated, also having piping 12 passing through them. (5pp Dwg.No.1)



MAUG D15 68206 B/38 = US 4285-702
Water collector from atmospheric air - with solar heat collector and condenser operating in two phases
 MAN MASCH AUGSBURG-NURNB 09.03.78-DE-810241
 J01 + Q42 (25.08.81) *DS2810-241 B01d-53/04
 08.03.79 as 018699 (1376JB)

Water is recovered from humid air by adsorption and then passing dry air through adsorbent material to desorb the H₂O. A first air stream is heated in a closed loop and passed through the adsorbent. Part of the air stream is diverted to a condenser for removal of H₂O. The air is then returned to the closed loop.

During desorption, the closed loop air is pref. saturated with H₂O. The diverted air may be precooled before passing to the condenser.

Water yield is increased. (7pp)

CRIS/★ D15 67759 D/37 ★ US 4285-719
Compositing of human wastes and cellulosic material - by discharging wastes onto cellulosic material seeded with worms
 CRISS J F 31.12.79-US-108551 (15.02.78-US-878162)
 (D16) (25.08.81) C05f-03/04 C05f-09/04
 31.12.79 as 108551 (367AT)

Continuous conversion of human wastes and cellulosic material into compost is carried out using an appts. comprising a toilet (or similar hopper) connected to a chamber by a valved conduit.

The chamber is 10-50% filled with cellulosic material or a 1.6:1 mixt. of cellulosic material and topsoil, which is then seeded with earthworms. Effluent (human waste and flush water) from the toilet is transferred to the chamber under suction.

A layer of cellulosic material is periodically deposited on top of the effluent in the chamber in a vol. ratio of cellulosic material to effluent of 1:2 to 3:1. The contents of the chamber are exposed to natural air convection at 50-100 deg.F and 30-100% RH, except when the toilet is being discharged. Excess liq. (if any) is drained from the chamber, and compost is periodically removed from the bottom of the chamber. (7pp)

ATWE/★ D15 67786 D/37 ★ US 4285-776
Desalination of sea or sewage water - by evaporation effected by spraying into low pressure environment

ATWELL G 17.05.78-GB-020135

(25.08.81) B01d-03/02

06.11.79 as 091704 (295BZ)

In a desalination system, a constant negative pressure is maintained in an evaporation chamber. Evaporated water vapour passes through the vacuum pump maintaining the negative pressure and condenses within an enclosure external to the evaporation chamber. The evaporation chamber is positioned concentrically in the enclosure which also includes a tank receiving the contaminated water for treatment. Solids may be selectively removed from the base of the evaporation chamber while maintaining the negative pressure using an air lock.

For the extraction of fresh water from a contaminated water source such as sea-water or sewage. The device is relatively efficient, economical and low cost, particularly if preheating of the incoming water can be effected e.g. using solar radiation. (4pp)

STAH ★ D15 67794 D/37 ★ US 4285-792
Self-cleaning pH meter - having electrode chamber with cleaning paddle wheel rotated by impingement of sample

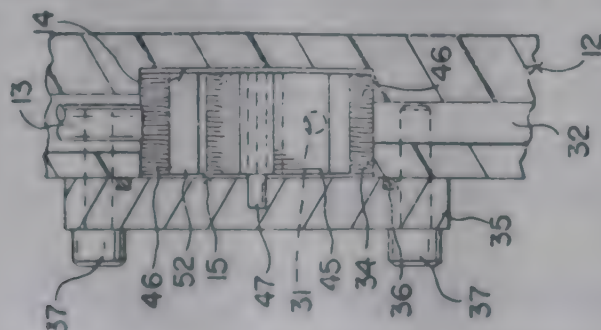
STANDARD OIL CO (OHIO) 30.07.80-US-173777

J04 S03 (25.08.81) G01n-27/38

30.07.80 as 173777 (67DJ)

Self cleaning pH meter for monitoring pH in an effluent process stream comprises a sampler for the stream and an electrode chamber which receives the sample from the sampler. The electrode chamber supports a pH electrode and the chamber and electrode are automatically continuously cleaned by a rotating paddle wheel in the chamber whose rotation is induced by the impingement of the sample upon it.

The electrode chamber (14) supports an electrode (13) and contains a paddle wheel (45) carrying cleansing brushes (46). A sample of the effluent process stream is pumped through the inlet port (31) into the electrode chamber (14). It impinges upon the paddle wheel causing it to rotate and the brushes clean any oily



waste and sediment from the chamber and electrode.

Deleterious build up of oily wastes and insoluble sediments on the electrode and chamber is prevented. (6pp Dwg.No.3)

PASE D15 51093 B/28 #US 4285-818
Sewage purification system - with alternative surface aeration by ambient air, oxygen and oxygen at excess pressure over fluid surface

PASSAVANTW

MICHELbacher 02.01.78-DE-800034

(11.06.79-US-047062)

(25.08.81) *DE2800-034 C02f-03/26

11.06.79 as 047062 (1376JB)

Waste water is treated by alternately carrying out at least two of the following 3 modes of operation: (a) surface aeration using air, (b) oxygenation under a single cover maintained at atmospheric pressure, (c) oxygenation under the cover at a higher pressure.

The water course is only covered in part by the cover, and the water passes several times beneath it. The modes are alternated depending on the O₂ content. O₂ requirement is reduced. (11pp)

CALY ★ D15 67809 D/37 ★ US 4285-819
Magnetic particles coated with chitosan - esp. for magnetic sepn. of ions from water

CALIFORNIA INST OF TECHN 28.01.80-US-116093

J01 (25.08.81) B01d-53/16

28.01.80 as 116093 (367HM)

Magnetic microspheres having a dia. of 0.01-1000 (pref. 0.05-1) micron and a metal content of at least 0.1 (pref. 1-25) wt.% comprise magnetic granules (dia. less than 50 Angstroms) coated with water-insoluble chitosan. The chitosan pref. has a degree of polymerisation of 500-1500 and the magnetic granules are pref. magnetite granules.

Also claimed is a process comprising (a) dissolving a mixt. of FeCl₂ and FeCl₃ in water and adjusting the pH of the soln. to 1-3; (b) dissolving a mucopolysaccharide (esp. chitosan) in the soln; (c) raising the pH above 7 to form micelles of the mucopolysaccharide contg. magnetite granules; and (d) precipitating the mucopolysaccharide, e.g. by boiling the soln.

The microspheres are esp. useful for magnetic sepn. of toxic ions from water, since chitosan forms complexes with a wide range of metal cations (e.g. Pb, Cu, Hg, Cd, Ni and Co) and anions (e.g. nitrate, fluoride, phosphate and borate). (4pp)

NITA D15 49139 C/28 = US 4285-820
Treating waste liquid contg. boron cpds. - and organic cpds., by combustion with steam, with recovery of boric acid

NITTETU CHEM ENG 22.12.78-JP-157607

E36 + Q73 (25.08.81) *NL7909-074 C01b-35/06 + C02f-01/02

11.12.79 as 102558 (931HM)

Waste liq. contg. boron- and organic cpds. is treated by combusting in a combustion zone at 1000-1500 deg. C in the presence of steam to produce a combustion gas, and introducing the gas into a heat recovery zone to cool the gas by indirect heat exchange with a heatable fluid. The cooled gas is introduced into a contact zone with water, and the metaboric acid converted into boric acid. Part of the liq. is withdrawn and the boric acid recovered.

The steam in the combustion zone is present in such amt. to provide a molar ratio of steam to boron components (as B₂O₃) of 30:1 such that the equation 0.5 B₂O₃ + 0.5 H₂O HBO₂ is shifted to the right, and all the boron components are present as gaseous metaboric acid. In the heat recovery zone, the combustion gas is not cooled to less than 400 deg. C.

The process is esp. used in treating the waste liq. resulting from the oxidn. of paraffins with O₂ in the presence of boron cpds. (3pp)

INKO- D15 68980 A/39 = US 4285-821
Filter with filter aid on support fabric between chambers - has residual liquor after each process phase removed by pressure

INKOMAG (HIES) 20.05.77-AT-003609

J01 (D13 D16) (25.08.81) *BE-867-267 B01d-37/02

01.08.79 as 062747 Div.ex. (+ 19.5.78-US- 907628) (1358WB)

Liquid, partic. water or beverage, is filtered in a chamber with two compartments formed by a horizontal partition by forming on the fabric a layer of filter aid from suspension in carrier liquid, discharging the carrier and removing any residues with displacement fluid so that carrier is completely removed from the upstream compartment first.

Working liquid is then filtered and when filtration is complete, feed liquid and filtrate are discharged completely and separately from the compartments using the displacement fluid before backwashing the filter, completely removing wash medium and repeating the cycle, optionally after sterilizing the filter. (22pp)

KERJ **D15** **42412 B/23 = US 4285-830**
Treatment of waste soln. contg. ammonium nitrate - originating from prepn. of nuclear combustible material, by thermal decomposition of the ammonium nitrate

KERNFORSCHUNGS JULICH 11.11.78-DE-849050 (30.11.77-DE-753368)

E35 K07 Q73 (E16) (25.08.81) *BE-872-416 G21f-09/14

30.11.78 as 964906 (918PW)

Waste solns. (I) are produced during the prodn. of fuel and breeder material for nuclear reactors and contain about 60wt.% ammonium nitrate and are treated by first continuously spraying into an ammonium nitrate decompsn. furnace for essential decompsn. Prods. formed are then subjected to condensn. to enable sepn. of prods. into a liq. and gaseous phase and oxygen equiv. to the NO content of the decompsn. prods. is supplied to the ammonium nitrate decompsn. zone.

Pref. the decompsn. furnace is vertically oriented, (I) is sprayed from above and the decompsn. prods. are removed through an exit in a lower region of the furnace.

Method can be performed continuously and is danger free with accumulation of little waste and waste prods. are quite harmless. (15pp)

GENO **D15** **31182 D/18 = US 4285-977**
CARbonation of water - by treatment with carbonated ice at normal atmos. pressure in closed pressure vessel

GENERAL FOODS CORP 10.10.79-US-083734

(25.08.81) *EP--27-357 A231-02

10.10.79 as 083734 (931JB)

Water is carbonated by contacting with carbonated ice at normal atmospheric pressure in a closed pressure vessel. The ice contains 28 ml. or more of CO₂ per g. of ice, sufficient to create a superatmospheric pressure in the vessel and provide a prod. contg. 3 vols. or more of CO₂.

Pref. the contacting comprises adding water to the vessel while retaining a head space, inserting the carbonated ice into this space out of contact with the water, closing the vessel to the atmos., and altering the position of the vessel so that contact is made.

The process is esp. used to produce soft drinks having a similar degree of carbonation as bottled or canned prods. (6pp)

NICH/★ **D15** **67957 D/37 ★ZA 8003-336**
Preventing growth of algae in pools etc. - by adding copper and/or zinc sulphate

NICHOLAS J A 04.06.80-ZA-003336 (26.06.79-ZA-003826)

C03 E32 (13.04.81) C02b

04.06.80 as 003336 (1248PW)

Treatment of water in swimming pools, ornamental pools, ponds, reservoirs etc. to restrict or prevent growth of algae, involves addn. of CuSO₄ and ZnSO₄ to the water.

The treatment inhibits and/or destroys algae and the ZnSO₄ provides an antibacterial action. The use of chlorine in a treated swimming pool can be reduced by up to 75% and of pool acid can be reduced by up to 80%.

The CuSO₄ and ZnSO₄ may be added in solid form or as a mixed soln. The ratio of CuSO₄ to ZnSO₄ is 2:1-1:2, and a soln. contains 145-230 and 85-170 g/l., respectively. In addn., HCl, MgSO₄ and NaCl may be present. In use 1-2 p.p.m. CuSO₄ and ZnSO₄ is added to the water to be treated. (10pp)

See Also

D22 US4285796

D23 DD-148924

D16: FERMENTATION INDUSTRY

CORP ★ **D16** **66086 D/37 ★BE -888-562**
Fructosyl-transferase enzyme preparations prodn. - by cultivation of Aureobasidium pullulan in high conc. saccharose and yeast extract media used to product fructose syrups

CPC INTERNATIONAL INC 19.05.80-US-150843

(D17) (17.08.81) C12n C12p

27.04.81 as 888562 (395DJ)

Process for prodn. of a fructosyl-transferase enzymatic prepn. by inoculation of a culture medium, contg. 16-24 (pref. 20-24) wt/vol % saccharose, 1-2.4 (pref. 2) wt./vol % yeast extract and about 1 wt./vol % of inorganic nitrate, with Aureobasidium pullulans and cultivating at 28-32 pref. 30-31, deg.C and pH 6-8 pref. 6.5-7.5 until a sufficient amt. of fructosyl-transferase has been produced; followed by recovery of the enzymatic prepn. in high yields without the necessity to eliminate black pigment or any viscous polysaccharide.

Conversion of saccharose to fructose syrups contg. more than 50% of fructose using the method of GB 2000144. The method described in GB 2000144 for isolation of fructosyl-transferase from a fermentation of the black yeast, Aureobasidium pullulans, requires a difficult purification to remove the black pigment and pullulan polysaccharide from the obtd. viscous broth and leads to low yields. The present process overcomes these problems by using high concentrations of saccharose and yeast extract leading to high yields of enzyme and low pullulan production. (14pp)

NOVO ★ **D16** **D/37 ★BR 8100-550**
Ethanol prodn. by fermentation

NOVO INDUSTRIA/S 06.02.80-US-119034

E17 (18.08.81) C12p-07/06

JILE/★ **D16** **D/37 ★CS 7705-810**
Reduction of sulphur content of lignite - by biological cultivation and leaching process

JILEK R 06.09.77-CS-005810

H09 (30.06.81) C01b-17 C01b-31 C12n-01/20

NEGM/★ **D16** **D/37 ★CS 8001-347**
Starch contg. hydrolysate for alcoholic fermentation

BENJAJEV NEGMAT -J 06.06.79-SU-076654 (20.02.79-SU-073602)

(30.06.81) C12n-01/22

PETR ★ **D16** **66124 D/37 ★DD -148-860**
Apparatus for sepn. of oil from microbial suspension - by hetero:coalescence, comprises a coalescence column and settling tank

VEB PETROCHEM SCHWEDT 20.11.79-DD-217007

C03 H04 J01 (D13) (17.06.81) B01d-17/02

20.11.79 as 217007 (280WB)

Device for separating oils from microorganism-contg. suspensions by heterocoalescence uses a combination of a coalescence device and a decantation apparatus. The coalescence device is a multistage plate column, the compartments of which are filled with different coalescence materials the mean granule sizes of which increase from the top to the bottom of the column.

The device is suitable for the sepn. of oil from suspension contg. e.g. 10-25 vol.% solids and 20-40 vol.% oil. After passing through the column, the suspension is introduced into a sedimentation apparatus, preferably a settling tank, where it separates into an oil or oil-enriched upper layer and a lower substantially oil-free microorganism suspension. Effectiveness of separation can be improved by recycling a part of the oily phase from the decantation apparatus to the uppermost compartment of the coalescence column.

Used for removal of oil cultures obtd. in the prodn. of fodder protein by cultivating microorganisms on hydrocarbon substrates. The degree of coalescence is substantially increased when the bulk density of the coalescence-promoting material is lower in the lower compartment of the column. (13pp) Dwg. N 1)

GARU-★ **D16** **66188 D/37 ★DD -148-889**
Protein-rich yeast prodn. - by conventional fermentation in the presence of cytokinin or cytokinin-like substances, esp. kinetin

FORSCHUNG GARUNGSIN 19.08.74-DD-180594

(17.06.81) C12n-01/16

19.08.74 as 180594 (280AT)

In a new process for the prodn. of protein-rich yeasts by conventional culture methods, cytokinins or cytokinin-like substances (esp. kinetin) are added to the C- and N-contg. medium.

Suitable substances with cytokinin-like activity include DNA-RNA hydrolysates. Kinetin is pref. used in a concn. of 10⁻² to 10⁻¹⁰. Suitable yeasts include Saccharomyces, Pichia, Hansenula, Candida, Torulopsis and Rhodotorula. (5pp)

STAA-★ D16 66139 D/37 ★DD-148-890
Neuraminidase microbiological prodn. - by cultivation of *Arthrobacter globiformis* ZIMET B616 in the presence of sialic acid-rich whey protein

STAATLICHES IMMUNPR 08.04.80-DD-220291

B04 (17.06.81) C12n-09/24

08.04.80 as 220291 (280AT)

In a new process for the prodn. of neuraminidase, *Arthrobacter globiformis* (ZIMET B616) is incubated with aeration at 30 deg. C in a minimal salt medium contg. sialic acid-contg. whey protein as the sole C and N-source for induction of neuraminidase, and subsequently centrifuged, and the enzymes is isolated in a conventional manner.

The sialic acid-contg. whey protein may be produced by treatment of whey with strong anion-exchangers and subsequent elution of the ion-exchangers with conc. NaCl soln. The organism *Arthrobacter globiformis* ZIMET B616 is stated to be new, and morphological data are given in the specificn.

Neuraminidase is an enzyme catalysing the hydrolysis of N-acetyl neuraminic acid glycosides. It is used for altering antigen determinants on cell surfaces and is employed in the serology of influenza viruses. The enzyme can also be used to suppress non-specific reaction of serum neurominic acid-contg. glycoproteins with influenza viruses. (7pp)

ENZY-★ D16 66140 D/37 ★DD-148-891
Bio-technical beta-glucanase prodn. - by preservation, selection and reactivation of *Bacillus subtilis* strain, propagation aerobic fermentation and concn.

INST ENZYMOLOGIE 24.12.75-DD-190401

(17.06.81) C12n-09/42

24.12.75 as 190401 (200WB)

In beta-glucanase prepn. with a *Bacillus subtilis* strain, vegetative cells and spores in *Bacillus subtilis* COHN 1872, the starting colonies of which reach high beta-glucanase activities e.g. over 80 i.u. beta-glucanase/ml, in a rocking flask test, are frozen in a liq. medium and stored under liq. N₂. Before use, the cells and spores undergo selection and reactivation on a reactivation medium, followed by the propagation of the selected, reactivated, active bacteria in a growth medium. Fermentation then takes place in a dry solids-deficient prodn. nutrient mediu, with little aeration. After bio-mass sepn. the culture soln. is conc. for use as a filtered concentrate or as a concentrate which is spray-dried with additives.

Beta-glycanase is used in brewing. The process is easily repeated. The prodn. nutrient soln. has low concn., whereby costs and sepn. losses can be reduced by 50%. Anti-foaming agent consumption is reduced by low aeration during fermentation. Beta-glucanase activity can reach 1050 i.u./ml in filtrate concentrates and 2000 i.u./ml in dry concentrates. (11pp)

DEAK★ D16 66158 D/37 ★DD-148-955
Nucleic acid immobilisation for affinity chromatography - by reaction of DNA or RNA with cyanuric chloride activated carrier e.g. paper in buffered weakly acidic medium

ZENTINS MOLEKULARBI 04.02.80-DD-218847

B04 (17.06.81) C07h-21 C12p-19/34

04.02.80 as 218847 (280AT)

In a new process for coupling nucleic acids to carrier materials activated with cyanuric acid chloride, the carrier materials (pref. cellulose or paper) are contacted with the nucleic acid in a weakly acidic, buffered pH range (pref. pH 5-6.5).

In an example, Whatman (RTM) 540-paper (0.5 sq. cm) is shaken 15 mins in 3M NaOH and 30 mins. at room temp. in 5% cyanuric acid chloride soln. in dioxan/xylene (1:1). After washing twice with dioxan, once with dioxan/glacial acetic acid /water 2:1:1 and once with water (10 mins. each wash), the paper is coupled with nucleic acid at room temp. in m/15 soerensen buffer with a DNA conc. of 100 mcg/ml. Covalent binding is up to 20 mcg DNA/sq.cm. Inactivation of residual gps. is effected with 1% ethanolamine in coupling buffar.

Used in prodn. of immobilised nucleic acids useful in biochemistry for affinity chromatography. Chemically simple coupling procedure giving a prod. which is stable under hybridisation and elution conditions. The procedure is universally applicable, and is suitable for the coupling of DNA and RNA fragments of all sizes (single- and double-stranded). (5pp)

KRUG/★ D16 66228 D/37 ★DE 3007-143
Quickly kiln-drying green malt - by aerating in esp. impulse-type HF field pref. in two steps

KRUGER E 26.02.80-DE-007143

(03.09.81) C12c-01/04

26.02.80 as 007143 (200DH)

Green malt contg. 40-50wt.% water is kiln-dried by airing in a high frequency field of 10 MHz to 25 GHz (esp. 2-3 GHz) until malt

is formed and the water content is reduced to 3-8 wt. %.

The high energy treatment pref. takes place in impulses, with rest pauses for airing and cooling between short, high energy treatments. A 2-step process is pref., in which the water content is reduced to 10-20wt.% at 3-70 deg. C in the 1st withering or pre-drying step, and to 3-8wt.% at 75-100 deg. C in the 2nd step. High frequency can be used during both withering and kiln-drying or during kiln-drying alone. The air throughput can be 3500-7000 cu.m./t malt during withering and 500-4000 cu.m/t malt during kiln-drying.

High-frequency treatment can reduce kiln-drying time to 1/10 to 1/20 of usual time, without lowering malt quality. (10pp)

PERW/★ D16 66246 D/37 ★DE 3007-396
Farmyard manure gas fermenter - with program controlled recirculation of floats and sinks layers

PERWANGER A 27.02.80-DE-007396

P11 (03.09.81) A01c-03/02

27.02.80 as 007396 (39BZ)

A farmyard manure gas fermenter is a horizontal cylinder, made of steel, plastic, concrete, wood or combinations of them. One side wall has pipes for the gas extraction, for the supply of fresh manure and the pump connections for the sinks and floats layers. The opposite side wall has pipes for the outflow of the digested manure, for a recirculation and for the removal of extreme floats or sinks layers.

This creates a plant which can be produced at a capital cost which equals the savings of fuel oil by the gas produced. It requires little maintenance. (8pp)

AGRO-★ D16 66257 D/37 ★DE 3012-198
Fermentation gas reactor - with revolving fluid spray pipe for floating scum layer removal

AGRO BIOGAS GMBH 04.01.80-DK-000050

(03.09.81) C02f-03 C12m-01

28.03.80 as 012198 (39RH)

A fermentation gas reactor is equipped with a special device to destroy the floating layer of scum which inhibits the gas production. The device consists of a horizontal pipe which can turn on a swivel on a vertical pipe. A pressurised liq. which is sprayed through nozzles in the horizontal pipe both revolves the spray device and breaks up the layer of scum.

This is a robust design which requires little maintenance and is suitable for continuous operation over long periods. The reactor efficiency is raised. (13pp)

ITAF★ D16 66258 D/37 ★DE 3027-929
Polysaccharide copolymer with enzymatic activity prodn. - by reacting polysaccharide suspension with enzyme and vinyl monomer

ITALFARMACO 28.02.80-IT-020213

A11 B04 (A96) (03.09.81) C12n-09/02 C12n-11/02

23.07.80 as 027929 (1251RH)

Prodn. of polysaccharide copolymer having enzymatic activity comprises treating a suspension of polysaccharide in aq. medium with a vinyl monomer (I) and an enzyme, and subsequently with a metal-salt contg. catalyst, then exposing the mixt. to UV irradiation. Pref. the catalyst is a ferric salt and (I) are of formula CH₂:CRR' or are N-acryloyl hetero- cycles. (R is H or methyl. R' is cyano or lower alkoxy carbonyl). Claimed (I) are methyl methacrylate; glycidyl methacrylate; acrylonitrile; bis-acryloylpiperazine and N,N',N-trisacryloyl-hexahydrotriazine.

The immobilised enzymes are useful in synthesis and for chemical or biological analysis. A wide range of enzymes can be immobilised with retention of their original activity on easily-prepd. matrices. Only small amts. of (I) are used and no pre-activation is necessary. (15pp)

SMIT/ D16 79329 C/45 = EP -34-586
Fluorometric or spectrophotometric determ. of enzymes - by hydrolysis of amino acid deriv. of 7-amino-4 tri:fluoromethyl-coumarin to produce chromophore

SMITH R E 23.04.79-US-032444

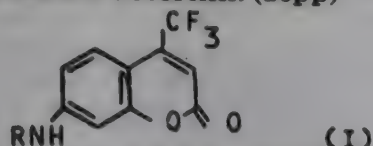
B04 (02.09.81) *EP-18-112 C07c-103/52 C07g-07 C12q-01/38

16.04.80 as 900871 Based on WP8002295 (985RP) (E) US4147692 US4155916 US4137225 US4056519 US4167449 US4191800 4.Jnl.Ref E(CH DE FR GB LI LU NL SE)

The presence of an enzyme in an enzyme contg. analyte is determined by (a) contacting the analyte with a substrate of formula (I) which can be hydrolysed by the enzyme to liberate 7-amino-4-trifluoromethylcoumarin (II); (b) incubating the analyte (I) mixt. under enzyme hydrolysing conditions to give an enzyme hydrolysate, and (c) fluorometrically or spectrophotometrically determining the presence of (II) in the hydrolysate. (R is an amino acid, a peptide or their derivs.) Cpds. (I) are new.

The method is esp. useful for the qualitative and quantitative determ. of proteolytic enzymes in biological fluids, e.g. blood

issue homogenates, cytoplasm and urine. (I) can be used (1) in fluorometric assays as it fluoresces weakly in the yellow region when irradiated with UV whereas (II) fluoresces strongly; and (2) in spectrophotometric assays as it is colourless and (II) has a yellow colour. There is no need to use dye-forming or wavelength shifting reactions before determin. (16pp)



HAGER/ D16 21419 D/12 = EP --34-609
Catalyst for biochemical conversions - comprises crosslinked polymer with covalently bound enzyme and entrapped microorganism

HAGERDAL B 23.08.79-SE-007035
A96 B04 (02.09.81) *WP8100-576 C12n-11/04
22.08.80 as 901625 Based on WP8100576 (1248RP) (E) DE2703834
US3950222 US3990944 4.Jnl.Ref E(FR)

Catalyst for biochemical conversion reactions comprises solid nodules of one or more polymer (at least one being crosslinked) with an enzyme covalently bound to the polymeric material. A microorganism is physically entrapped in the 3-dimensional structure of the crosslinked polymer.

The enzyme is suitably covalently bound via COOH, OH, Ph, tyrosine, NH₂ or SH gps. in the enzyme or polymer. The solid nodules may be in the form of beads of 0.1 to a few mm in dia. The polymer may be a polysaccharide such as cellulose, starch, agarose, dextran, carrageenin, alginate or chitin, or a vinyl polymer, polyaminoacid, portein, polyamide or polyurethane. Typical enzymes include oxidoreductases, transferases, hydrolases, lyases, isomerases and ligases. The microorganisms may be algae, bacteria, bacteriophages, fungi, viruses, antisera, protozoa and yeasts.

The catalyst is useful in conversions proceeding in at least 2 stages from a substrate to a desired end prod. via at least 1 intermediate, with enzyme required at one stage and microorganism in the other. Typical prods. include EtOH from cellulose, starch, lactose or xylose, BuOH from cellulose and 6-aminopenicillanic acid from a penicillium sp. fermentation. (15pp)

DKON- D16 64204 C/37 = EP --34-667
Methane gas prodn. by fermentation - whilst maintaining a reduced pressure in the fermenter to give increased methane yield

STUD O DE KONINCKX (STUD-UYGE) 26.02.80-BE-881915
(26.02.80-BE-058427)

E17 (02.09.81) *BE-881-915 + C02f-11/04 C12p-05/02
04.08.80 as 200743 (513HM) (F) J75135279 FR-911622 GB-521036
E(AT CH DE FR GB IT LI LU NL SE)

In a process for producing methane gas by fermentation the methane is recovered by maintaining a reduced pressure in the chamber in which the fermentation process is carried out. Pref. the pressure is between 0 and 0.5 atmospheres underpressure and is maintained e.g. by suction removal of the methane.

Process is useful in all methane prodn. units in which waste material such as water purificn. sludge, conc. waste water from biological treatment plants, domestic waste fractions, animal husbandry waste etc. is fermented. Use of reduced pressure (e.g. 1-5 m water column) give up to 50% increase in the vol. of methane produced per m³ reactor per day and also increases the degree of conversion of the fermented material to methane. Calculations show that for a given vol. of methane, the reactor vol. required can be reduced by one third, which saves investment costs for the plant. (6pp)

BEHW D16 55330 D/31 = EP --34-692
Carboxy- or hydroxy-alkyl polysaccharide derivs. - contg. detectable, esp. dye gps., useful for endohydrolase assay, pH indication etc.

BEHRINGWERKE AG 19.01.80-DE-001878
A96 B04 S03 (02.09.81) *DE3001-878 C08b-31/12 C08b-37/02
C12q-01/34 G01n-33/50

10.01.81 as 100139 (1251HM) (G) No-Citns. E(BE DE FR GB IT NL)
Polysaccharides of formula RO-(Glucose-(OR)₃n)n-OR (I) are new (n is 100-12500; R is H, 1-5C alkyl subst. by carboxy or hydroxy, or is the residue of a detectable molecule (T). The (3n+2) R gps. must include at least one subst. alkyl and are T gp.). Esp. pref. cpds. have n as 600-6000 and R are H, 1-2C subst. alkyl or T.

(I) are reagents for detection and assay of endohydrolases (esp. amylases), and also pH and oxidn. indicators, and for detecting nitrite, bilirubin and urobilinogen. (I) have good solubility in aq. and polar aprotic solvents and can be incorporated into porous carriers, then fixed simply by drying to practically water-

insoluble (but swellable) form. The resulting test papers are thus resistant to 'bleeding'. (18pp)

KRPP D16 62448 D/35 = EP --34-739
Froth formation of gas-liq. reactions - in circulation reactors controlled by side stream injector recycling

KRUPP F GMBH 12.02.80-DE-005115
J04 (02.09.81) *DE3005-115 B01d-19/02
07.02.81 as 100866 (39DH) (G) No-Citns. E(AT CH FR GB LI SE)

The formation of froth during chemical or biochemical gas-liquid reactions in circulation reactors is controlled by recycling the froth by a fluid flow from the froth zone into the liquid circulation of the reactor. The fluid flow is generated by a by-pass of the reactor liquid and/or of the gas supply to the reactor.

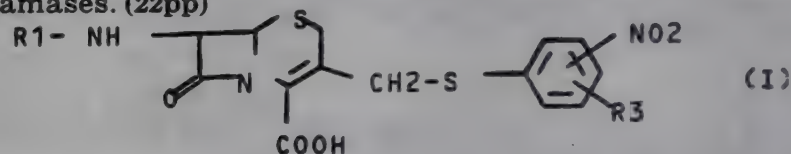
This saves the use of any chemical agents and saves more energy through a reduced requirement of gas for the reactor than what is needed for the pump to produce the fluid flow. (21pp)

FARH ★ D16 66320 D/37 ★ EP --34-759
Chromogenic cephalosporin cpds. for beta lactamase detection - carrying nitro-phenyl:thio-methyl gp. in the 3-position

HOECHST AG 23.02.80-DE-006889
B02 (02.09.81) C07d-501/36 C12q-01/34

11.02.81 as 100959 (280BZ) (E) No-Citns. E(BE FR GB IT NL)
New chromogenic cephalosporin derivs. are cpds. of formula (I) (where R₁ is H, formyl, opt. subst. aroyl, or an acyl residue of the formula (R') (R) (R')C-CO-; R' is H, opt. subst. 1-4C alkyl, an opt. subst. and/or mono- or polyunsatd. carbocyclic ring, opt. subst. aryl or aryloxy, or opt. subst. heteroaryl or heteroarylthio; R and R' are H, 1-4C alkyl, OH, opt. subst. acyloxy, opt. subst. alkoxy, amino, opt. subst. alkylamino, opt. subst. acylamino, alkoxycarbonyl, halogen, CN, sulphony or aminosulphonyl; and R₃ is H, NO₂, halogen, alkyl, CN, carboxy, alkoxycarbonyl or aminocarbonyl).

(I) are chromogenic beta-lactamase substrates: opening of the beta-lactam ring under the influence of beta-lactamase causes a colour shift into the visible spectrum. (I) can accordingly be used for the detection of beta-lactamases and/or in the detection of beta-lactamase inhibitors. Preparations for the detection of beta-lactamases (e.g. for use in clinical microbiology) can contain (I) in soln. or as a carrier (e.g. paper in the form of test strip). (I) can also be used in e.g. column-chromatographic purification of beta-lactamases. (22pp)



THOM/ D16 64326 D/36 = EP --34-775
Homogeneous enzyme-mediated assay of ligands e.g. hormones - using enzyme mediator-labelled ligand, with steric enlargement of at least one reaction component

THOMAS H A 22.02.80-DE-006709
B04 C03 S03 (02.09.81) *DE3006-709 G01n-33/54
13.02.81 as 101026 (280BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

In a new homogeneous procedure for the determination of ligands (esp. those of high mole wt.) using a enzyme modulators (e.g. enzyme inhibitors) as markers of the ligand to be determined, enzyme modulator/ligand conjugate binding receptor, enzyme and substrate, at least one of the reactants influencing the measurement reaction is sterically enlarged.

Steric enlargement of the reactant is advantageously effected by means of antibodies or their Fab fractions. Alternatively, the enzyme reaction component can be sterically enlarged by chemical fixing, pref. by means of water-soluble polymers.

Enzyme-mediated analysis of substances e.g. thyroidhormones, steroids, pharmaceuticals, drugs, herbicides, insecticides, toxins, antigens, etc. The procedure can be carried out homogeneously (i.e. without sepn. steps), and permits the accurate determination of a wide range of ligands. (28pp)

TATL D16 64646 D/36 = EP --34-933
Immobilised enzymes in gel layers on inert support - esp. for amyloglucosidase used to produce glucose from starch

TATE & LYLE LTD 26.02.80-GB-006448
(D17) (02.09.81) *GB2070-022 C12n-11 + C12n-13
20.02.81 as 300729 (1251NS) (E) No-Citns. E(AT BE CH DE FR IT LI LU NL SE)

A prod. having an active immobilised enzyme (I) as part of an external gel deposit on an inert support is new. Pref. the deposit represents at least 3, esp. 10-75% of the total vol., and can be either a continuous matrix enclosing the support, or a discontinuous or irregular coating. It pref. contains 50-95% water, the balance being immobilised enzyme solids. (I) is esp. a saccharifying enzyme and the support is bone char. Also new are enzymatic conversion methods using these prods.

Method is esp. used to immobilise amyloglucosidase (I'), used to prod. glucose from starch. The gel is strong and shear-resistant, and rapid attrition of the layer during use does not occur (pref. enzyme half-life is over 10 days). (41pp)

STAHL/★ D16 66475 D/37 ★GB 1597-354
Composting of organic waste materials - with air circulation for heat removal and transfer

STAHLSCHMIDT V 04.10.76-GB-018261

(09.09.81) C05f-09/04

22.12.77 as ----- (367KB)

Aerobic thermophile fermentation of organic waste materials is effected by storing the materials as a stationary mass and passing air through the mass in such a way that there is at least partial recirculation of air within the mass and the air is heated by passage through part of the mass before passing into another part of the mass. The air is recirculated at a temp. of at least 40 deg.C and is passed through the mass in an amt. such that the temp. in the fermenting mass is prevented from rising above 60 deg.C.

More specifically, air is drawn from the atmos. through one portion of the mass, where it is heated, and is then passed through another portion, from which part of the air recirculates to the 1st portion. (8pp)

SUMO D16 80990 B/45 #GB 1597-436
Carriers for enzyme immobilisation - comprising macroporous amphoteric ion-exchange resins with introduced carboxymethyl gps.

SUMITOMO CHEMICAL KK 25.04.78-DE-818086 (25.04.78-GB-016352)

A96 B04 (09.09.81) *DE2818-086 C08f-08 C08g-08/28 C12n-11/02 25.04.78 as 016352 (982MR)

An enzyme-immobilisation carrier comprises a macroporous, synthetic amphoteric ion-exchange resin other than polysaccharides and their derivs. having a cation-exchange capacity due to carboxymethyl gps. of at least 0.5 meq/g- dry resin, an anion exchange capacity of at least 1 meq./g-dry resin, and a specific surface area of at least 1 sq.m/g-dry resin. The total vol. of macropores with a pore size of 100-2000 angstroms is at least 0.1 cc/g.dry resin.

Pref. the matrix of the resin is polystyrene, PVC or phenolic. The carriers provide immobilised enzymes having high activity and long life time. (15pp)

SOVI-★ D16 66481 D/37 ★GB 1597-464
Venting closure for fermentation vessel - with combined heater inserted directly into neck of vessel

SOUTHERN VINYARDS L 06.01.77-GB-000437

(09.09.81) C12g-01

05.04.78 as ----- (295KB)

A venting closure for a fermentation vessel comprises a housing for insertion into the vessel. In use a plate extends across the housing and has an aperture to sealingly receive a tubular heater which extends into the vessel. The plate has a valve which permits egress of gas from the vessel but prevents ingress of air. Pref. the valve comprises an annular diaphragm which surrounds the heater and overlies at least one aperture in the plate.

The combined venting closure and heater are specifically for use with small sized fermenting vessels used by home wine-makers. (4pp Dwg.No.2)

TAKE D16 55430 A/31 = GB 1597-662
Antitumour, antibacterial and antifungal copper contg. antibiotic - c-11924 f-1 produced by streptovorticillium strains (NL 26.7.78)

TAKEDA YAKUHIN KOGY 24.01.77-JP-007026

B04 (09.09.81) *DE2802-792 A61k-35/66 A61k-37/02 C07g-11 24.01.78 as 002799 (974KB)

Novel antibiotic C-11924 F-1 is a peptide. It contains C 40.81%, H 5.72%, N 16.35%, S 3.95% and Cu 3.64% and decomposition temp. is not lower than 195C. The mol.wt. is 1800 + -50. Its UV absorption spectra has maxima at 243 and 297 nm and specified R spectrum. It is readily soluble in water, soluble in methanol, sparingly soluble in ethanol and insoluble in ethyl acetate, n-butyl acetate, chloroform, benzene, cyclohexane, diethyl ether and petroleum ether.

It is a basic substance with positive reactions to the Sakaguichi, ninhydrin, Ehrlich, Dragendorff, KMN04 and Greig-Leaback reactions. It is stable under neutral conditions, slightly unstable under alkaline conditions and unstable under acid conditions. (12pp)

ALBR D16 84794 Y/48 = GB 1597-70
Isomerising alpha-acids obtd. from hop extraction - with alkali metal alkali in non-polar water immiscible solvent

ALBRIGHT & WILSON LTD 29.07.76-GB-031619

(09.09.81) *BE-857-305 C07c-49/59

22.07.77 as ----- (931AT)

Alpha-acids are isomerised by contacting their soln. in a water immiscible non-polar solvent with an anhydrous alkali to form the corresp. alkali metal salt; heating the salt to form the iso-alpha acid salt; and recovering the prod. by aq. extraction at pH 8-9.5.

Pref. the solvent used is a petroleum or terpene hydrocarbon having b.pt. 100-150 deg.C., and the alkali is K₂CO₃. Isomerisation occurs at 100-150 deg.C and in the presence of 0.5-1.5 wt.% of water w.r.t. the reaction mixt.

Aq. extracts of the prod. are esp. prepd. which can be stored and used by diluting them to less than 5 wt.% with distilled water then dispersing into cold fermented beer to the desired degree of bitterness. (3pp)

ALBR D16 84794 Y/48 = GB 1597-70
Isomerising alpha-acids obtd. from hop extraction - with alkali metal alkali in non-polar water immiscible solvent

ALBRIGHT & WILSON LTD 29.07.76-GB-031619 (00.00.78-GB-025212)

(09.09.81) *BE-857-305 C07c-49/59

31.05.78 as ----- Div.ex. 1597702 (931AT)

An isomerised hop extract is prepd. by contacting an alpha-acid contg. the extract (or its soln. in a non-aq. water-immiscible solvent) with a non-aq. alkali to form the corresp. non-aq. resinous alkali metal salt (or its soln.).

The salts are heated to form iso-alpha-acid salts, which are recovered by partitioning the isomerised extract between water-immiscible non-polar solvent and an aq. phase of pH 8.2-9.5. Pref. the non-polar solvent is a hydrocarbon of b.pt. 105-150 deg.C.

Aq. extracts can be prepd. which can be stored, and are esp. used by diluting them to less than 5 wt.% with distilled water then dispersed into cold fermented beer to provide the desired degree of bitterness. (4pp)

PHAA D16 65621 A/37 = GB 1597-75
Reactive derivs. of sulphhydryl contg. polymers - having e.g. carboxy; succinimido-alkylene di-sulphide gps. and useful as thiolating agents and enzyme supports

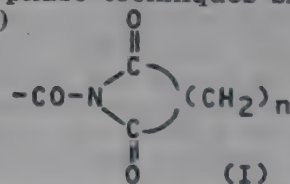
PHARMACIA FINE CHEM 04.03.77-SE-002463

A11 B04 (A97) (09.09.81) *DE2808-539 C08b-37/02 + C08b-31/02 C12n-11/06

03.03.78 as 008457 (977PW)

A deriv. of an HS- gp.-contg. polymer is claimed where a number of the HS-gps. have been converted to a disulphide gp. of formula -S-S-A-Z where A is 1-10C hydrocarbyl and Z is -CO-SR', -C(NH₂)OR₂, or of formula (I) (where n is 2 or 3, R' is 2-pyridyl, 5-nitro-2-pyridyl or 4-pyridyl, and R₂ is (m)ethyl).

Pref. the polymers are insol. in water, and esp. are polysaccharide (agarose) derivs. The polymers are esp. crosslinked and are swellable in water. The derivs. are used as thiolating agents for components contg. amino gps. e.g. proteins. Thiolation by solid phase techniques should provide a certain steric specificity. (9pp)



BRYA/★ D16 66565 D/37 ★GB 2070-64
Prod. of male-specific antibodies - for sepn. of male- and female-determining sperm

BRYANT B J 29.02.80-GB-006904

B04 C03 (09.09.81) C12n-01

29.02.80 as 006904 (367DJ)

Prod. of monospecific male-specific antibodies is carried out by (a) immunising a female mammal with male mammalian cells and allowing immunoglobulin build-up to take place; (b) isolating crude antiserum from the blood of the immunised female and decomplementing the antiserum; (c) purifying the antiserum by serial adsorption on female cells to leave an antiserum containing monospecific male-specific antibody; (d) opt. verifying male antigen monospecificity; and (e) opt. separating the immunoglobulin fraction from the antiserum.

The antibodies can be used to isolate female- and/or male-determining sperm from mammalian semen by immunoadsorption techniques. The resulting sperm can be used for artificial insemination to control the sex of mammalian offspring (e.g. for cattle or humans). (16pp)

ABBO ★ D16 66594 D/37 ★ GB 2070-767
Stabilising substrate-peroxide reaction prods. - from enzyme immunoassay, by adding soluble meta bi:sulphite or thiosulphate salt

ABBOTT LABORATORIES 03.03.80-US-126817

B04 S03 (09.09.81) G01n-33/54

02.02.81 as 103120 (1251KB)

The reaction prod. formed by reacting a substrate (I) and a peroxidase (II) is stabilised by adding to the mixt., as reducing agent, a soluble metabisulphite or thiosulphate salt, specifically the Na salts (II) is esp. horseradish peroxidase (II') and (I) is esp. o-phenylenediamine (I').

The method is applied to enzyme immunoassay and stabilisation of the reaction prod. allows accurate determination of antigens, antibodies, binding proteins and haptens. The use of hazardous enzyme denaturants or irreversible inhibitors is avoided. (4pp)

KOWA ★ D16 66764 D/37 ★ J5 6092-217
Easily absorbable enzyme preparations - comprising protease and trypsin inhibitor and/or chymotrypsin inhibitor

KOWA KK 26.12.79-JP-169903

B04 (25.07.81) A61k-37/54

26.12.79 as 169903 (33AS)

Preparation comprises a protease and a trypsin inhibitor and/or a chymotrypsin inhibitor. The enzyme preparation is useful as an antiinflammatory agent. It can be administered orally in the form of powders, tablets, capsules or pills at a unit dose of 5-15 mg (as protease content) three to four times a day. Preparation has good absorption from the intestinal tract without decomposition by trypsin or chymotrypsin.

Protease is e.g. seaprose, serratiopeptidase, lysozyme, etc. Pref. trypsin inhibitors and chymotrypsin inhibitors are hydroxybenzoic acid derivs. and amidinophenol derivs. (6pp)

GOND/ ★ D16 66806 D/37 ★ J5 6092-441
Glucose determ. - using membrane fixed with glucose oxidase and glucose isomerase and measuring concn. of oxygen or hydrogen peroxide formed

GONDO S 26.12.79-JP-173467

B04 E13 J04 (27.07.81) C12q-01 G01n-27/30

26.12.79 as 173467 (50HM)

Glucose sensor comprises fixed enzyme formed by fixing glucose oxidase and glucose isomerase, namely a fixed enzyme membrane in which glucose oxidase and glucose isomerase are fixed in the same membrane or a fixed enzyme membrane consisting of two layers fixed separately with glucose oxidase and glucose isomerase.

Glucose oxidase brings about the reaction $\text{Glucose} + \text{H}_2\text{O} + \text{O}_2 = \text{gluconic acid} + \text{H}_2\text{O}_2$. As O_2 dissolved in water decreases and H_2O_2 increases according to the concn. of glucose by the reaction, the concn. of glucose can be indirectly determined by measuring the concn. of dissolved O_2 of H_2O_2 . Carrier for fixing the enzymes is e.g. collagen.

By using glucose isomerase together with glucose oxidase, the sensitivity of the glucose sensor is raised and the deterioration of the sensitivity with time is depressed, improving the stability of the sensor. (5pp)

OMRO ★ D16 66807 D/37 ★ J5 6092-445
Glutamic acid oxalo:acetic acid trans:amylase determination - by forming glutamic acid by enzymatic reaction and determining amt. formed

OMRON TATEISI ELTRN KK 25.12.79-JP-170067

B04 (27.07.81) C12q-01 G01n-27/46 G01n-33/50

25.12.79 as 170067 (50AT)

Determining glutamic acid oxaloacetic acid transamylase (GOT) comprises treating glutamic acid, formed by enzymatic reaction of GOT, with oxidised coenzyme NAD(nicotinamide adenine dinucleotide) or NADP(nicotinamide adenine dinucleotide phosphate) in the presence of glutamic acid dehydrogenase to convert the coenzyme into the reduced form then, treating it with oxidised electron carrier (e.g. methylviologen, benzyl-viologen, etc.) to reduce the oxidised carrier, oxidising the reduced type electron carrier using a measuring electrode applied with a given potential, and measuring the oxidn. current flowing between the electrodes to determine the activity of GOT.

By this method, GOT can be rapidly and simply determined at reduced cost, and the amt. of sample (e.g. blood serum) used can be reduced. Also continuous determination of GOT can be carried out. (5pp)

OMRO ★ D16 66808 D/37 ★ J5 6092-44
Glutamic acid pyruvic acid trans:amylase determ. - involve electrochemical measurement of oxidn. of reduced electron carrier formed using a reduced coenzyme

OMRON TATEISI ELTRN KK 25.12.79-JP-170068

B04 (27.07.81) C12q-01 G01n-27/46 G01n-33/50

25.12.79 as 170068 (50RH)

Determn. of GPT comprises treating glutamic acid, formed by enzymatic reaction of GPT, with oxidised type coenzyme NAD(nicotinamide adenine dinucleotide) or NADP(nicotinamide adenine dinucleotide phosphate) in the presence of glutamic acid dehydrogenase to convert the coenzyme into reduced type, treating the reduced type coenzyme with oxidised type electron carrier (e.g. methyl-viologen, benzyl-viologen, etc.) to convert the electron carrier into the reduced type, oxidising the reduced type electron carrier by a measuring electrode applied with a given potential, and measuring the oxidn. current flowed between the electrodes to determine the activity of GPT.

GPT can be rapidly and simply determined at reduced cost without being affected by hindering substances. Continuous determination can be carried out and the amt. of sample (e.g. blood serum) can be reduced. (5pp)

AJIN ★ D16 66821 D/37 ★ J5 6092-784
Acetic acid requiring Brevibacterium - can be used in amino acid prodn., utilising carbon source with high efficiency

AJINOMOTO KK 27.12.79-JP-170926

B05 E19 (27.07.81) C12n-01/20 C12n-15 C12p-13/08 C12r-01/13

27.12.79 as 170926 (5AT)

Brevibacterium requiring acetic acid for growth are new.

Examples of the species are B. flavum AJ11277(FERM-P4551) (AECr, Ac-, producing L-lysine), B. flavum AJ11278 (FERM-P4552) (AECr, Hse-, Ac-, producing L-lysine, B. lactofermentum AJ11280 (FERM-P4554) (ACEr, CCLr, Ala-, Ac-, producing L-lysine), B. flavum AJ11517 (FERM-P5337) (Ac-, producing L-glutamic acid), etc. The bacterium are derived from parent strains of B. lactofermentum ATCC 13869 and B. flavum ATCC 14067. (AECr: resistible to S-(2-aminoethyl)cysteine, Hse-: requiring homoserine, Ac-: requiring acetic acid, CCLr: resistible to alpha-chlorocaprolact alpha-chlorocaprolactam, Ala-: requiring alanine). The varieties can be obtd. by treating the parent strains by conventional mutation-inducing means e.g. irradiation with UV, X-ray, radiation, treatment with mutation-inducing chemicals, etc.

Varieties obtd. can produce amino acids e.g. L-arginine, L-glutamic acid, L-histidine, L-isoleucine, L-leucine, L-methionine, L-ornithine, L-phenylalanine, L-threonine, L-valine, L-tryptophane, etc. utilising the carbon source with high efficiency. (4pp)

KAOS ★ D16 66822 D/37 ★ J5 6092-785
Cultivating microorganism using hydrocarbon deriv.) as carbon source - with addn. of glyco:lipid

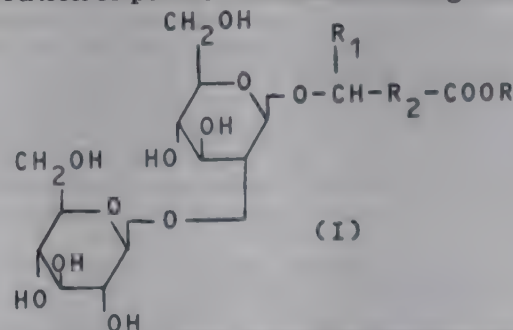
KAOSOAP KK 26.12.79-JP-169901

E13 H04 (27.07.81) C12n-01/38 C12p-19/44 C12r-01/64

26.12.79 as 169901 (140AS)

In the cultivation of microorganisms, partic. yeast, using hydrocarbons or hydrocarbon derivs. as main carbon sources, the improvement comprises adding to a medium a glycolipid cpd. of formula (I). R₁ is H or CH₃; when R₁ is H, R₂ is 12-16C satd. or unsatd. hydrocarbyl gp., or when R₁ is CH₃, R₂ is 11-15C satd. or unsatd. hydrocarbyl; R is 1-20C alkyl or oleyl, pref. 1-3C alkyl.

Addn. of (I) ensures rapid incorporation of hydrocarbons or their derivs. and growth of microorganisms can be accelerated. Growth acceleration is partic. noticeable using 12-18C n-alkanes. (10pp)



KAOS ★ D16 66823 D/37 ★ J5 6092-786
Cultivation of hydrocarbon-assimilable microorganisms - in presence of hydrocarbon(s) and glyco:lipid(s) to improve uptake and growth

KAOSOAP KK 26.12.79-JP-169902

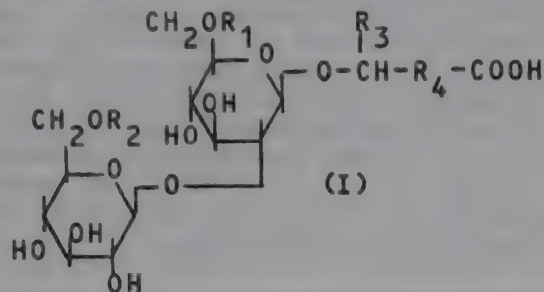
E13 H04 (27.07.81) C12n-01/38 C12p-19/44 C12r-01/64

26.12.79 as 169902 (140RH)

In the cultivation of microorganisms, partic. yeast, using hydrocarbons or hydrocarbon derivs., pref. 10-18 n-alkanes, as

main carbon sources, the improvement comprises adding to a medium a glycolipid cpd. of formula (I) (R1 and R2 are H or COCH₃; R3 is H or CH₃; R4 is 12-16C opt. unsatd. hydrocarb. when R3 is H, or 11-15C opt. unsatd. hydrocarb. when R3 is CH₃). (I) can be derived from glycolipids (sophorolipids) produced by certain types of yeast belonging to the genus *Torulopsis*.

Hydrocarbons or derivs. thereof are more advantageous than glucides because of their high contents of effective carbon per unit wt. but their rates of incorporation into microorganisms is small. By the addn. of (I), rapid incorporation of hydrocarbons or their derivs. can be attained and growth of microorganisms can be remarkably accelerated. The growth acceleration is partic. noticeable in using 10-18C n-alkanes. (8pp)



AMAN ★ D16 66824 D/37 ★ J5 6092-787
Choline oxidase - obtd. by culturing fungi of penicillium genus, useful for determ. of cholinesterase or lecithin

AMANO PHARM KK 25.12.79-JP-167519

B04 (27.07.81) C12n-09/04 C12r-01/80

25.12.79 as 167519 (69RH)

Choline oxidase may be produced by culturing choline oxidase-producing fungi of *Penicillium* genus and withdrawing choline oxidase from cultured mixt. Choline oxidase is useful as reagent for determination of cholinesterase or lecithin which are used for diagnosis of various diseases such as nephroses syndrome due to choline esterase or liver diseases (by means of choline esterase) and diagnosis of lipoheemia (by means of lecithin), choline, resultant from choline ester by choline esterase, may be oxidised by choline oxidase and yielded hydrogen peroxide may develop colour and be determined. Lecithin is treated with phospholipase D and yielded choline is determined as well as the above and amt. of lecithin is calculated.

As an example of fungi of *Penicillium* genus may be cited *Penicillium ochro-choloren* No. 79 (FERM P-No.5303) which was sepd. from soil. Other suitable fungi include *Penicillium carnescens* IFO 7955, *Penicillium janthinellum* IFO 7905, *Penicillium citrinum* IFO 6026 etc. (5pp)

AMAN ★ D16 66825 D/37 ★ J5 6092-788
Poly:amine oxidase AT-1 - prepd. by culturing *Aspergillus terreus* IFO 4346, which is an enzyme catalysing oxidative deamination of spermidine and spermine

AMANO PHARM KK 24.12.79-JP-166952

B04 (27.07.81) C12n-09/06

24.12.79 as 166952 (69BZ)

Novel microbe polyamine oxidase AT-1 has the following physicochemical properties: It acts on spermidine to give 1 mol of putrescine, 1 mol of 3-aminopropion aldehyde and 1 mol of hydrogen peroxide from 1 mol of spermidine, and also acts on spermine to give 1 mol of putrescine, 2 mols of 3-aminopropion-aldehyde and two mols of hydrogen peroxide from 1 mol of spermine.

The oxidase oxidises spermidine and spermine in a ratio of 2:1 but does not act on other amines at pH of 6.5 pref. vicinity of 45 deg.C at pH 6.5 and vicinity of 50 deg.C at pH 7.0. When treated at 30 deg.C for 30 minutes, more than 90% of residual activity is present at pH 5.2-6.5. More than 90% of residue activity is present on treatment at pH 6.5 and 30 deg.C for 10 minutes.

Max absorption spectra is in the vicinity of 375 nm and 460 nm and the substance is flavin enzyme. The oxidase is inhibited by copper and mercury ions; its isoelectric point is 5.0-5.23 and mol. wt. is 130,000 (Gel filtration) with mol.wt. of Subunits being 65,000 (SDS disc electrophoresis method). It is isolated as needle like crystal form.

Polyamide oxidase is an enzyme that acts as catalyst in oxidative deamination reaction of polyamine partic. decomposition metabolism of polyamine such as spermidine or spermine etc. in living bodies. The novel polyamine oxidase AT-1 may be produced from culture mixt. of *Aspergillus Terreus* IFO 4346 using in culture medium contg. spermidine or spermin as single carbon and nitrogen source. (9pp)

AMAN ★ D16 66826 D/37 ★ J5 6092-789
Microbial poly:amine oxidase DC-3 - used to prepare enzyme poly:amine oxidase used in cancer diagnosis

AMANO PHARM KK 24.12.79-JP-166953

B04 (27.07.81) C12n-09/06 C12r-01

24.12.79 as 166953 (69AS)

Polyamine oxidase DC-3 (I) has specified physicochemical properties including (a) activity: acts with spermidine to give putrassin (1 mol), 3-aminopropionaldehyde (1 mol) and hydrogen peroxide (1 mol) from spermidine (1 mol) and act with spermine to give putrassin (1 mol) 3-aminopropionaldehyde (2 mols) and hydrogen peroxide (2 mols) from spermine (1 mol); (b) substrate specificity: acts with spermadine and spermine but not with other amine; and (c) optimal pH: optimal action to spermidine at pH approx. 5.0 and optimal action to spermin at pH approx. 9.5. (I) may be produced by culturing suitable microbe in nutrient culture medium contg. deriv. substance of polyamineoxidase PC-3 such as spermidine or spermine to accumulate polyamineoxidase in culture mixt., and taking out, purifying and recovering (I). Polyamineoxidase in an enzyme which act as catalyst on oxidative deamination reaction of polyamines and is useful in the decomposition and metabolism of polyamine such as spermidine or spermine in living bodies. Polyamineoxidase is used as enzyme for diagnosis of cancer. High yields (I) may be produced and accumulated in culture mixt. of *Penicillium chrysogenum* IFO 4626 in culture medium containing spermidine or spermine. (11pp)

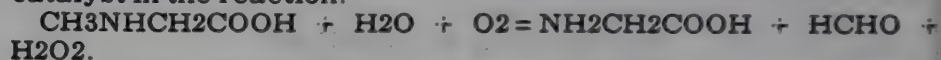
YAMA/ ★ D16 66827 D/37 ★ J5 6092-790
Sarcosine:oxidase - used in determ. of creatinine and creatine, produced by culturing microbe of genus *Cylindrocarpon*

YAMADA H 26.12.79-JP-169860

(27.07.81) C12n-09/06 C12r-01/64

26.12.79 as 169860 (69HM)

Sarcosineoxidase (I) is produced by culturing (I)-producing microbe of genus *Cylindrocarpon* and isolating (I) from cultured mixt. (I) is an important enzyme in the creatinine and choline metabolism, in determ. of creatinine and creatine and as a catalyst in the reaction.



The (I)-producing microbe is e.g. *Cylindrocarpon didymum* (Hartig) Wollenweber (FERM-P No.4168). Mycological properties of the microbe are described in detail in the genus *Cylindrocarpon* Mycological Papers 104:32-34, (1966), Commonwealth Mycological Institute, Kew Surrey, England).

Properties of (I) are (1) mol. wt.:45,000 (Gel filtration) 48,000 (SDS-Disc electrophoresis); (2) Pptn. constant: S20, W3.8; (3) Absorbancy E 1% 1cm 280 nm; 26.4; (4) Coenzyme: 1 mol FAD/1 mol. enzyme. (5) Isoelectric point:5.2; (6) Km (to Sarcosine): 1.8 nM; (7) Optimal pH:vicinity of 8.0; (8) Optimal temp.:35 deg.C; (9) pH stability:most stable in tris HCl buffer at pH 8-8.5; (10) Absorption spectra: max. absorption at 450 nm; (11) Inhibitor: addn. of 1 mA of Ag⁺, Mg²⁺, Cu²⁺, I₂, acetic acid and 0.1 mM of P-CMB inhibit completely; (12) Substrate specificity:Only sarcosine is substrate and does not react with the other N-methylamino acid. Decomposes sarcosine stoichiometrically in the presence of oxygen and water to yield glycine, formaldehyde and hydrogen peroxide. (4pp)

AMAN ★ D16 66829 D/37 ★ J5 6092-793
Fermentative prodn. of coenzyme/q-10 - using microorganisms of *Paecilomyces*, *Monascus* or *Aspergillus crubatus* genus

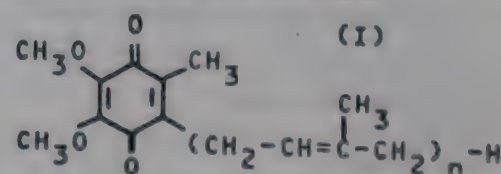
AMANO PHARM KK 27.12.79-JP-169388

B05 (27.07.81) C12p-07/66 C12r-01/80

27.12.79 as 169388 (69RH)

Coenzyme Q10 may be produced by culturing coenzyme-producing microbe of *Paecilomyces*, *Monascus* and *Aspergillus crubatus* genus and sepg. prod. Coenzyme Q10 is widely distributed in living world, and its physiological function plays an important roll as necessary component in terminal electron-transfer system, and it has excellent pharmacological action and physiological action against various conditions partic. cardiopathyl. Coenzyme Q is of formula (I) where n / 10.

Paecilomyces varioti No.9215 (FERM-P No.5304) newly sepd. from soil is an example of coenzyme Q10-producing microbe. Other microbes are e.g. cited *Monascus anka* IFO 04478 and *Adpergillus crubatus* IAM 2041 etc. (4pp)



IN ★ D16 66830 D/37 ★ J5 6092-795
 Glutamic acid fermentative prepn. - by culturing
 evibacterium with reduced isocitrate lyase activity and
 covering L-glutamic acid from the culture medium
 AJINOMOTO KK 27.12.79-JP-170928
 B05 E16 (27.07.81) C12p-13/14 C12r-01/13
 12.79 as 170928 (5AT)

Brevibacterium with reduced isocitrate-lyase (4,1,3,1 Ls-
 isocitrate glyoxalate-lyase) activity is cultured in liq. culture
 medium and L-glutamic acid accumulated in the culture medium
 recovered.

Examples of the species used are *B. lactofermentum* AJ11516
 (FERM P-5736) (Ac-, reduced isocitrate-lyase activity) and *B.*
flavum AJ11518 (FERM-P5338) (reduced isocitrate-lyase
 activity). Those strains are derived from *B. lactofermentum*
 ATCC 13869 and *B. flavum* ATCC 14067 by common mutation-
 inducing means. The strains is cultured at 24-37 deg.C aerobically
 with pH in the range 6-9. The reduced isocitrate-lyase activity
 means that the activity of isocitrate-lyase is reduced to such a
 degree that its activity can not be detected. Ac- is a requirement
 for acetic acid.

Variety showing reduced isocitrate-lyase activity is derived
 from Known L-glutamic acid-producible strains of
 Brevibacterium and has been found to produce L-glutamic acid
 with higher yield compared with that attained by the parent
 strain. (3pp)

AJIN ★ D16 66831 D/37 ★ J5 6092-796
 L-Tryptophan prepn. by fermentative method - by aerobic
 culturing of e.g. *Bacillus*, *Brevibacterium* resistant to
 indolmycin

AJINOMOTO KK 22.12.79-JP-167074
 B02 E13 (27.07.81) C12p-13/22 C12r-01/*
 22.12.79 as 167074 (5AT)

Bacillus, *Brevibacterium*, *Corynebacterium*, *Arthrobacter*,
Microbacterium or *Escherichia* resistant at least to indolmycin
 (abbr. IM) or N-dimethyl-C-dimethyl-indolmycin (abbr. DM) is
 cultured aerobically in liq. culture medium and L- L-tryptophane
 accumulated in the culture medium is recovered.

The varieties can be obtd. by treating parent strains by
 conventional mutation-inducing means. Examples of the
 varieties are *Bacillus subtilis* AJ11488 (FERM-P5290) (IMr),
 AJ11489 (FERM-P5291) (DMr), AJ11484 (FERM-P5287) (5-
 FTr,IMr), *Brevibacterium flavum* AJ11490 (FERM-P5292) (IMr),
 AJ11491 (FERM P-5293) (DMr), *Corynebacterium glutamicum*
 AJ11492 (FERM-P5294) (IMr), AJ11493 (FERM-P 5295) (DMr), etc.

Varieties obtd. by donating the resistance to IM or DM to the
 bacterial strains of *Bacillus*, *Brevibacterium*, *Corynebacterium*,
Arthrobacter, *Microbacterium*, or *Escherichia* and which can not
 produce L-tryptophane, show high producibility for L-
 tryptophane. (4pp)

FUJI- ★ D16 66899 D/37 ★ J5 6093-046
 Enzymatic immunoassay beta 2-micro-globulin determ. - using
 polystyrene beads sensitised with anti human beta 2-micro-
 globulin labelled with peroxidase

FUJIZOKISEIYAKU 20.11.79-JP-149576
 A96 B04 (28.07.81) G01n-33/54
 20.11.79 as 149576 (50DJ)

A method of determining beta2-microglobulin by enzymatic
 immunoassay comprises using polystyrene beads sensitised with
 anti-human beta2-microglobulin antibody and anti-human beta2-
 microglobulin antibody labelled with peroxidase, and
 determining the content of beta2-microglobulin in sample liq. by
 utilising the oxidising activity of peroxidase.

In the method beta2-microglobulin antigen is held between the
 polystyrene beads sensitised with anti-human beta2-
 microglobulin antibody and the anti-human beta2-microglobulin
 antibody labelled with peroxidase, and the content of beta2-
 microglobulin in sample liq. is determined by utilising the
 oxidising activity of peroxidase, i.e. the method is enzymatic
 immunoassay called sandwich process.

According to the method, beta2-microglobulin in small amt. in
 sample liq. (e.g. blood, urine, etc.) can be determined in 5-6 hrs.
 by relatively simple operation without using expensive appts.
 (4pp)

AGEN ★ D16 67196 D/37 ★ J8 1031-115
 Glucose isomerase prepn. - by culturing *Streptomyces*
 microorganism in medium contg. xylose

AGENCY OF IND SCI TECH 07.05.71-JP-030287
 (18.07.81) C12n-09/92
 07.05.71 as 030287 (22KB)

Microorganism belonging to the genus *Streptomyces* which can
 produce glucose isomerase is cultured on a culture medium
 contg. xylose to produce glucose isomerase. (J47043282) (3pp)

KURE D16 26299 Y/15 = J8 1035-151
 Microbial food prepd. by culturing *Methylomonas probus* - in
 medium contg. methanol as carbon source

KUREHA KAGAKU KOGYO 29.08.75-JP-104093
 (D13) (14.08.81) *J52028-988 A23k-01 C12n-01/32 C12r-01/26
 29.08.79 as 104093 (5PW)

Microbial body applicable as food and feed can be obtd.
 economically by culturing novel bacteria in the culture medium
 contg. methanol as carbon source.

The method is characterised by culturing novel bacterium
Methylomonas probus in the culture medium contg. methanol as
 the major carbon source and inorganic nutrients and sepg. and
 collecting multiplied bacterial body.

The bacterium can be multiplied rapidly and can keep rapid
 velocity even in the medium having methanol concn. as high as
 4%. Obtained bacterial body contains crude protein 80%.
 (J52028988) (7pp)

SAOC D16 37669 A/21 = J8 1035-152
 Methanol katabolisable marine bacteria - producing protein(s)
 from cheap raw materials e.g. methanol, and growing on a
 medium prepd. from sea water

SANRAKU OCEAN 24.09.76-JP-113652
 (14.08.81) *J53041-482 + C12n-01/32 C12r-01/38
 24.09.76 as 113652 (52AT)

Prepn. of methanol catabolisable marine bacterial organisms
 comprises aerobically culturing MeOH catabolisable marine
 bacteria on a medium contg. MeOH as major C source and more
 than 0.5 (w/v)% Na ion (amt. calculated in terms of NaCl), and
 recovering the organism.

Specifically claimed bacteria is a strain of *Pseudomonas*, and a
 strain of *Pseudomonas marino-methanolica*. (J53041482) (9pp)

JAAT D16 19287 Y/11 = J8 1035-153
 Fixing of enzyme or cell in continous reactor - by forming an
 active polymerised complex of the enzyme or cell

JAPAN ATOMIC ENERGY RES 25.07.75-JP-090132
 A96 B04 (14.08.81) *J52015-888 + C08f-02/44 C08f-120/28 C12n-
 11

25.07.75 as 090132 (38DH)

Method comprises placing into a continuous enzymic reactor a
 mixt. of (1) aq. soln. or suspension of enzyme or cell opt.
 contained on an adsorbent, (2) at least 1 polymerisable monomer
 (A) or a mixt. of (A) monomer(s) with other monomer(s) where the
 total amt. of the two kinds of monomers is less than 30 wt.% by
 wt. and (3) at least 1 granular, powder or fibrous fillers (B). The
 monomer(s) are polymerised and the resultant polymerised
 complex is pptd. from aq. phase, to form active enzyme complex
 layer contg. tightly bound enzyme for continuous enzymic
 reaction.

The monomer (A) is (meth)acrylate of the formula: CH₂CX-
 (CO)O(CH₂)_n OH or CH₂=CX(CO)O(R₁O)_mR₂ (where R₁ is -
 CH₂CH₂- or -CH(CH₃)CH₂-, R₂ is H, Me or CH₂=CX-CO, X is H or
 Me, n is 2, 3 or 4, m is an integer of more than 2). (B) is saw dust,
 wood tip, cellulose, filter paper, cotton, synthetic fibre, silica gel,
 talc, unglazed pottery powder, active carbon, molecular sieve,
 glass fibre, or plastic foam.

Method provides a simple and convenient process for
 preparing fixed enzyme in column for continuous enzymic
 reaction which maintains high activity level. (J52015888) (5pp)

KAKY D16 57140 A/32 = J8 1035-154
 Islets activating protein from *Bordetella pertussis* - promotes
 insulin secretion and improves glucose tolerance (BE 31.7.78)

KAKEN YAKU KAKO KK 01.02.77-JP-010397
 B04 (14.08.81) *DE2803-397 A61k-35/70 C12p-01/02
 01.02.77 as 010397 (280BZ)

New biologically active substance is 'islets activating protein' (I)
 with insulin secretion promoting and glucose tolerance
 improving activity in mammals. It is produced from cultures of
Bordetella microorganisms and has specific properties including
 mol.wt. (gel filtration) 77000 + 6000; protein content (Lowry
 method) more than 95 wt.% and glucide content (phenol-H₂SO₄
 method) approx. 1 wt.%.

(I) is useful for the treatment and prevention of various types of
 diabetes due to its high insulation secretion promoting activity at
 low doses (approx. 0.1 microgram/kg). (J53096392) (17pp)

ARIM/ D16 92048 A/51 = J8 1035-156
 Fermentative prodn. of indane type cpds. - by contacting a strain
 of *Nocardia* with a medium contg. sterol(s)

ARIMA K 15.04.77-JP-043724
 B05 (B02) (14.08.81) *J53130-492 + C12p-07/42 C12p-17/06 C12r-
 01/36

15.04.77 as 043724 (52BZ)

Prodn. of indane cpds., i.e. 3a-H-4-(3'-propionic acido) - 5-
 hydroxy-7a-methyl hexahydro-1-indanone and 3a-H-4-(3'-
 propionic acido) 5-hydroxy-7a-methyl-hexahydro-1- indanone.

delta-lactone (HIL), comprises culturing a strain of *Nocardia* on a medium contg. sterols (e.g. cholesterol, beta-sitosterol, campesterol, liethocholic acid, cholic acid) or their dehydrogenated derivs., and recovering the prods.

HIL is useful as an intermediate in prepn. of steroid hormones, e.g. oestradiol. Suitable microorganism strains are e.g. *Nocardia corallina* NG-511 (FERM-P 4018), *Nocardia corallina* NG-34 (FERM-P 4017). (J53130492) (4pp)

MITN D16 70802 B/39 = J8 1035-157
Fermentative prodn. of coenzyme/Q-10 - by cultivating *Protaminobacter* rubber under aerobic conditions

MITSUBISHI GAS CHEM IND 06.02.78-JP-012208

B05 (14.08.81) *J54105-292 + C12p-07/66 C12r-01/*

06.02.78 as 012208 (16HM)

Fermentative production of coenzyme Q10 comprises cultivating a coenzyme Q10-producing strain of *Protaminobacter* in a nutrient medium and extracting the produced coenzyme Q10 from the cultured cells. A preferred strain is *Protaminobacter* rubber. The fermentation is carried out at 20-45 deg.C under aerobic conditions. During the fermentation, the medium is kept at pH 5-10, pref. 6-7.5.

Coenzyme Q10 is useful as a pharmaceutical and an element of animal health products. Mass production of coenzyme Q10 is possible. (J54105292). (3pp)

KIKK D16 24272 C/14 = J8 1035-158
Culture medium for prodn. of 3',5'-cyclic adenylic acid - comprises sterilised urea, and other components which allow e.g. *Corynebacterium* to grow

KIKKOMAN SHOYU KK 11.08.78-JP-097364

B02 (14.08.81) *J55023-967 C12n-01/20 C12p-19/32 C12r-01/*
11.08.78 as 097364 (22RP)

Urea is sterilised, and other components for culture medium for prepn. of 3',5'-cyclic adenylic acid are separately sterilised, and then both components are mixed with each other to give culture medium for prepn. of 3',5'-cyclic adenylic acid. Microorganism which produced 3',5'-cyclic adenylic acid are cultivated in the culture medium and the resulting cyclic adenylic acid is recovered from the culture broth.

The microorganism used includes those belonging to the genus *Corynebacterium*, *Arthrobacter*, *Brevibacterium*, *Micrococcus*, etc. such as strain of FERM-P No.206 etc. The amt. of sterilised urea used in the culture medium is 0.2-2.0%. The cultivation is conducted at pH 5-7 at 20-40 deg.C for 10-80 hrs. (J55023967) (5pp)

YAMA D16 29215 Y/17 = J8 1035-159
(7)-Methoxy cephalosporins fermentative prodn. - using *Streptomyces* species in a thiol contg. medium, and opt. oxidative deamination of side chain

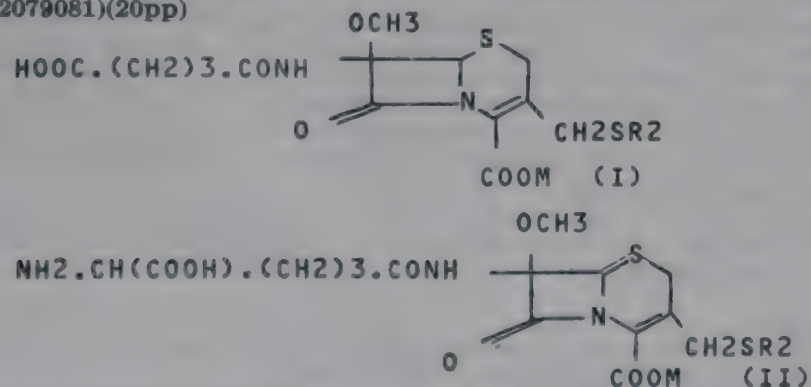
YAMANOUCHI PHARM KK 25.12.75-JP-155646

B02 (14.08.81) *BE-849-763 A61k-31/54 C07d-501/57 C12p-35/08 + C12r-01/46

25.12.75 as 155646 (1251RH)

Prodn. of a cephalosporin of formula (I) comprises cultivating a (R2 is N-contg. heterocyclyl and M is H or salt-forming cation. *Streptomyces* species which produces 7-methoxycephalosporin in a nutrient medium which additionally contains the thiol R2SH or its precursor. The intermediate of formula (II) is formed and this is subjected, under aerobic conditions, to microorganisms of the genus *Trigonopsis* which produce D-amino acid oxidase, or cellular extracts of such a microorganisms.

(I) and (II) are antibiotics active against Gram positive and negative bacteria, esp. *Pseudomonas* and *Proteus* species. A specified prod. is 7-(4-carboxybutyramido)-7-methoxy-3-(5-methyl-1,3,4-thiadiazol-2-yl)thiomethcephem-4-carboxylic acid. (J52079081)(20pp)



RIKA D16 22370 D/13 = J8 1035-436
Prodn. of DNA relaxing enzyme - by culturing *haemophilus gallinarum* atcc 14385.

RIKAGAKU KENKYUSHO 07.07.79-JP-086086

A96 B04 (17.08.81) *J56011-792 C12n-09 C12r-01/* + C12n-15
07.07.79 as 086086 (52HM)

Prodn. of DNA-relaxing enzyme comprises culturing a DNA-

relaxing enzyme producing strain of *Haemophilus*, and treating the resultant organism by ultrasonication, then fractionation with ammonium sulphate for pptn., phosphocellulose chromatography, DEAE-cellulose chromatography, and gel filtration. The enzyme specifically acts on cyclic double-stranded DNA and relaxes the torsion structure.

The strain of *Haemophilus* means *H.gallinarum* ATCC 14385 and its natural or artificial variant. The enzyme has the following properties: 1) relaxing of the torsion of DNA; 2) optimum pH: 7-8; 3) optimum temp.: 35-42 deg.C (partic. 37 deg.C); 4) mol.wt. about 110 power 5 (determined by gel filtration with Sephadex G-200).

The enzyme is used in cut and recombination of a single linkage of double-stranded DNA. Since sensitive to ethidium bromide bound to double-stranded DNA or to some bond of specific antibiotics, the enzyme is useful as a biochemical reagent used in research of new antibiotics. (J56011792) (5pp)

MITN D16 81134 C/46 = J8 1035-42
Peroxidase enzyme microbiological prodn. - by cultivation of peroxidase-producing *Myrothecium* strain e.g. *M. gramineum*

MITSUBISHI GAS CHEM IND 11.04.79-JP-043864

B04 S03 (17.08.81) *DE3014-001 C12n-09/08 + C12r-01/*

11.04.79 as 043864 (280AT)

Prodn. comprises (a) cultivation of a microorganism of the genus *Myrothecium* which can produce psloxidase in a nutrient medium; (b) accumulation of the peroxidase in the cultivated prod.; and (c) collection of the accumulated peroxidase.

Peroxidase is used e.g. as a reagent for the quantitative determination of substances such as glucose, alcohol and cholesterol which can act as substrates for oxidases such as glucose oxidase, alcohol oxidase and cholesterol oxidase. Peroxidase is also suitable as a labelling enzyme in enzyme immunoassays. (J55135589) (9pp)

ASAH D16 76464 W/46 = J8 1035-43
Lipase purificn. - by adsorption on insoluble carrier combine with aliphatic cpd., washing, and surfactant desorption or denaturation

ASAHI CHEMICAL IND KK (AGEN) 19.11.73-JP-129919

(17.08.81) *J50077-586 + C12n-09/20 C12r-01/38

19.11.73 as 129919 (HM)

In an example, 0.2-0.5 ml of lipase soln. of various sources was adsorbed on a laurylamine-Sepharose column (2ml. dia. 10.3mm) and the column washed well. The adsorbed lipase was eluted with Na desoxycholate; elution position was at 0.3%. Sp. activities increased from 84.6, 1.2 and 74.2 to 235.7, 53.4 and 341.8 in *Pseudomonas*, swine pancreatic and yeast lipases, resp. Yield was 95.6, 57.2, and 56.5%, resp. (J50077586) (7pp)

AMAN D16 20111 W/12 = J8 1035-43
Leucine aminopeptidase purifn - by heating crude prod. contg. proteinase in presence of alcohols and ketones

AMANO PHARM KK 12.04.73-JP-040872

B04 (17.08.81) *J49126-883 + C12n-09/48 C12r-01/66

12.04.73 as 040872 (NS)

Crude preps. of leucine aminopeptidase (I) with proteinase (II) was purified by heat treatment at 25-45 deg. in the presence of alcohols and ketones causing inactivation and redn. of mol.wt. of II.

In an example *Aspergillus melleus* ATCC 16889 was cultured on bran 3 days at 30 deg. extd. with water and fractionated with EtOH (30-65%) to give the crude prepn. of 89000u I/g with 3500u II/g 40 ml 5% aq. soln. of the crude prepn. fractionated by adding 60 ml EtOH at 30 deg. and then 100 ml at less than 10 deg. to give 0.5g dried matter of 320,000u I/g without II Me2CHOH and MeOH also used. (J54126883) (8pp)

SUNZ D16 29595 D/17 = J8 1035-44
Compsn. for determining sulphide content of saliva - obtd. by dispersing animal meat peptone, thiosulphate, sulphite, dithydrogen phosphate, sorbitol etc. in water

SUN STAR HAMIGAKI K 27.07.79-JP-096339

B04 + P31 (17.08.81) *J56021-598 C12q-01/04 G01n-33/50 + A61b-10

27.07.79 as 096339 (HM)

The comps. is prepd. by dispersing (a) 0.5-5 w/w% of animal meat peptone, (b) 0.001-0.1 w/w% of Na thiosulphate or Na thioglycollate or 0.001-0.01 w/w% of cysteine, Na sulphite or Ksulphite, (c) 0.001-1 w/w% of K or dihydrogen phosphate, (d) 0.01-2 w/w% of dipotassium or disodium hydrogen phosphate and (e) 0.01-10 w/w% of sorbitol or mannitol, in water.

The method is effected by (a) putting the comps. in the vessel which can be tightly plugged, (b) adding the saliva, (c) plugging the vessel tightly, (d) culturing at ca. 37 deg.C for 5-24 hours and (e) judging the formation of volatile sulphide through the colour change of the indicator which is previously added in the reaction mixt. or impregnated in proper carrier and set in the void of the vessel.

The culture medium contg. animal meat peptone as the major ingredient and specific sugar alcohol is suitable for culturing saliva to release volatile sulphide. (J56021598) (5pp)

WAT/ ★ D16 67237 D/37 ★ J8 1035-644
Prepn. of amino acid contg. nutrient drink - by immersing cyprinus caprio in alcoholic drink contg. sugar, extracting, concentrating and filtering (J5 6.10.79)
IWATANI A 27.03.78-JP-035850
(19.08.81) A61k-35/60
27.03.78 as 035850 (22BZ)

Cyprinus caprio is immersed in alcoholic drink contg. sugar, followed by heating for 5 to 12 hrs. The resulting extracting soln. is concentrated, then followed by sepn. of solid substance, and there is obtd. amino acid-contg. nutrient drink (J54129193) (2pp)

LEEP= ★ D16 67441 D/37 ★ SU-789-576
Echo virus strain 3081 serotype 14 - is used for forming diagnostic serum

LENGDEPIDEMIOLOGY 22.05.78-SU-617487
B04 (23.12.80) A61k-39/42 C12n-01 C12r-01/91
(22.05.78 as 617487 (314GW))

ECHO virus strain 3081 serotype 14 is used for producing diagnostic serum having high activity and specificity. It has a typical enterovirus morphology. It is sensitive to the primary fibroblast of human embryos and to interwoven diploid cells of light human embryos. It displays a sharp cytopathogenic effect. (2pp)

UGLI= ★ D16 67442 D/37 ★ SU-789-577
Lactic strain Streptococcus cremoris 55K 2-2-2 - is used in bacterial compns. for cheese-making
UGLICH BUTTER CHEES 18.09.78-SU-666186
(D13) (23.12.80) A23c-19/03 C12n-01
18.09.78 as 666186 (314GW)

Mesophilic lactic streptococcus strain Streptococcus cremoris 55K (2-2-2) is used for making cheeses having a low secondary heating temp. The strain grows strongly at 30 deg. C and sours milk with minimum seeding in 14-16 hrs; at 5% milk is soured in 6 hrs. with no peptonisation. A dense uniform curd is formed of a metanana-like consistency. The specific acidity of the milk at 9 deg. C is 90 deg. T and at 30 deg. C is 116 deg. T.

The strain reduces and coagulates milk of litmus at 30 deg. C and does not change at 40 and 45 deg. C. It grows in a hydrolysed broth contg. 2% NaCl, but not with 4% NaCl. It grows weakly in a hydrolysed broth at pH 9.2, but not at pH 9.6. (4pp)

ALTA= ★ D16 67443 D/37 ★ SU-789-578
Streptococcus lactis strain 156 - has antagonistic properties towards foreign microflora in cheese
ALTAI BUTTER CHEESE 22.03.79-SU-742395
(D13) (23.12.80) A23c-19/03 C12n-01
22.03.79 as 742395 (314GW)

Bacterial strain Streptococcus lactis 156 is used in bacterial compns. in cheesemaking. The strain is antagonistic to foreign microflora in the cheese.

It is antagonistic towards the development of Gram-positive Pseudomonas subtilis and Gram-negative Pseudomonas fluorescens, Escherichia coli and Proteus vulgaris; Streptococcus aureus; and yeasts Candida utilis and Saccharomyces vini. It also actively inhibits intestinal infection by Escherichia coli 0111:B4, Shigella disenteriae Sonnei 3a and Shigella flexneri; and also food contamination by Salmonella typhimurium and Staphylococcus aureus B209 P. (4pp)

UGLI= ★ D16 67444 D/37 ★ SU-789-579
Prodn. of lactic bacteria for cheese-making - by culturing strains in solid, phospholipid complex-contg. medium and observing phospholipase activity
UGLICH BUTTER CHEES 14.09.78-SU-661413
(D13) (23.12.80) A23c-19/02 C12n-01/20
14.09.78 as 661413 (314GW)

Lactic bacteria are prepd. for cheese-making by: culturing test strains at optimum temp. in a prepd. nutrient medium for 24 hrs; transferring to a solid indicator medium contg. hydrolysed milk, agar and 2-4% of a neutral phospholipid complex contg. 35-40% pure phospholipids; culturing the strains for a further 24 hrs; and observing the development of the strains for phospholipase activity.

The method enhances the quality of cheese produced by reducing the fermentative hydrolysis of the phospholipid components.

In a pref. process, egg yolk is used as the phospholipid complex; and the bacterial strains used are selected pref. by the size of the hydrolysis zones developed in the 24 hr. culture period, as follows: Streptococcus diacetylactis 0.5-5mm; Streptococcus

lactis 0.5-6mm; and Streptococcus cremoris and paracitrovorus 0.5-8mm. (4pp)

UGLI= ★ D16 67445 D/37 ★ SU-789-580
Nutrient medium for bifido-bacteria - comprises sodium citrate, glucose, maize extract, vitamin R concentrate, EDTA, agar-agar, ferrous sulphate, mannitol and skimmed milk
UGLICH BUTTER CHEES 19.02.79-SU-728357
(23.12.80) C12n-01/20
19.02.79 as 728357 (314GW)

Nutrient medium for developing bifido-bacteria for use in the microbiology and dairy industries comprises (in wt. %): trisubst. Na citrate 0.9-1.0; glucose 0.9-1.0; maize extract 0.9-1.0, gp. B vitamins feedstuffs concentrate 0.03-0.06; EDTA salt 0.008-0.012; agar-agar 0.075-0.08; FeSO₄.xH₂O 0.01-0.015; mannitol 0.0008-0.0009 and fermentative skimmed milk hydrolysate the balance. The medium provides a good biomass yield. (3pp)

VIES/ ★ D16 67446 D/37 ★ SU-789-581
Prodn. of di-oxy-acetone by culturing Acetobacter suboxydans - in glycerine-contg. medium which also includes glycerine-impregnated sawdust
VIESTURE ZA 18.07.78-SU-648341
B05 E17 (D13 D21) (23.12.80) C12p-07/02
18.07.78 as 648341 (314GW)

Dioxyacetone, used in cosmetics, medicine and food processing is obtd. by culturing Acetobacter suboxydans aerobically at 28-32 deg. C in a nutrient medium contg.: glycerine, KH₂PO₄, maize extract and 0.1-1 vol. % sawdust, initially treated with 12-15% glycerin. The method is intensive, low cost and low waste-producing.

A pref. nutrient medium comprises (in %): glycerine 10-15, maize extract 0.5-0.6, KH₂PO₄ 0.5 and sawdust 0.1-1.0. (4pp)

ENVI= ★ D16 67526 D/37 ★ SU-789-712
Photometric determ. of alkaline phosphatase activity - by treatment with alpha-naphthyl phosphate and then with benzoyl-amino-di-methoxy-aniline
ENVIRONMENTHYDROME 06.07.78-SU-637752
J04 S03 (25.12.80) G01n-21/78 G01n-33/50
06.07.78 as 637752 (70GW)

The activity of the alkaline phosphatase is determined by treating the sample with a substrate, and then subjecting the resulting the resulting soln. to photometric examination. This process is simplified and the stability of the coloration is increased by using as a substrate alpha-naphthyl phosphate and treating the resulting soln. with 4-benzoylamino-2,5-dimethoxyaniline.

The resulting complex of alpha-naphthol and 4-benzoylamino-2,5-dimethoxy-aniline dissolved in acetone is stable for 2-3 days, if kept in the dark. Bul.47/23.12.80. (2pp)

FINN- D16 51646 A/29 = SU-791-266
Immunological determ. and enzymatic reactions - using ring-shaped coated body, to fit test-tube etc. coated with e.g. antibody, antigen, protein, hapten or enzyme
KOMMANDIITFINNPIPE 14.01.77-FI-000116
B04 J04 S02 + P31 (S03 S05) (25.12.80) *BE-862-908 G01n-33/18
13.01.78 as 566403 (GW)

Shaped bodies used in appts. for immunological determinations and enzymatic reactions, which increase the precision, reproducibility, ease and speed of the determination, may be placed in a test-tube, dish or similar container and are coated or covered by an antibody, enzyme, protein, antigen, hapten, etc. e.g. a carbohydrate. They are in the form of a ring or open-ring, or they may be made into such a shape when used, and have a means by which the rings outer surface is kept in contact with the inner surface of the tube etc. during use, e.g. projections, flanges, etc. on the ring or tube, which are such that they allow contact of the liquid or reaction mixture in the tube, with all the surfaces of the coated body and that when the reaction mixture or liquid is analysed, the beam of light used passes through the central 'eye' of the ring.

The process (a) gives a uniform ring for each determ. and avoids differences due to variation in tube surface, etc., (b) allows any type of tube (e.g. those with best optical properties) to be used (c) avoids difficult time consuming process of coating tubes (d) allows re-use of tube, (e) allows shaped bodies to be transported, stored etc. more easily and for longer periods and (f) allows the ring to be re-used, e.g. enzyme-coated ring is easily washed after use. Bul.47/23.12.80. (4pp)

FROM/★ D16 67683 D/37 ★US 4285-276
Aq. solns. of hydrolase enzymes - for use as aq. fountain dampening soln. in lithographic printing

FROMSON HA 11.04.80-US-139490 (29.04.77-US-792424)

G05 P75 (25.08.81) B41m-01/06

11.04.80 as 139490 (+ 15.11.78-US-960894) (478HM)

The known method of lithographic printing in which a lithographic printing plate having oleophilic and hydrophilic areas on its surface is contacted with ink and an aq. fountain dampening soln. during printing is improved by using as the fountain soln. an aq. soln. contg. a soln. of an H₂O-soluble hydrolase enzyme (I).

Suitable (I) include pepsin, lipase, protease, amylase, diastase, papain, and rapidase. Amt. of (I) in soln. is 0.05-5% generally 0.1-0.5% by wt. Opt. the fountain soln. may also contain an H₂O-soluble polymer (PVA etc.), or an alcohol.

Use of (I) in the fountain soln. reduces the amt. of the soln. needed to dampen the plate, reduces or eliminates the amt. of additives used in the fountain soln., and reduces paper waste. (4pp)

AGRO-★ D16 67785 D/37 ★US 4285-774
Microwave distillation of beer in multistage apparatus - with counter flow of beer and alcohol vapour

AGROHOL SYSTEMS 30.06.80-US-164250

(25.08.81) B01d-03/16 C07c-31/08

30.06.80 as 164250 (295BZ)

Beer flows through a series of evaporators and then through a set of salvage cells. Each of the evaporators and salvage cells is heated by a microwave unit which evaporates alcohol. Alcohol from the evaporator stages is passed upstream to the first stage into which is also added condensed vapour from the salvage cells. Vapour from this first cell is condensed to yield a product comprising 95% alcohol and 5% water. Preferably the beer feed supplied to the first stage is preheated.

The apparatus extracts alcohol from beer. Use of the salvage cells recovers alcohol from the waste of the evaporator stages. (4pp)

LIKH/★ D16 67855 D/37 ★US 4285-930
Antigen conjugate for prodn. of high specific antibody titres - contg. killed *Bordetella pertussis* mutant coupled to tumour cells

LIKHTE V V 13.11.79-US-093171 (08.12.77-US-858847)

B04 (25.08.81) A61k-39/10

13.11.79 as 093171 (1248KB)

Antigen conjugate (I) comprises an immunostimulant adjuvant contg. a killed strain of *Bordetella pertussis* mutant NRRL B-11232 coupled by a diisocyanate coupling agent to a secondary antigen comprising living adenocarcinoma tumour cells.

Conjugate (I) is useful in producing high titres of specific antibodies, which are used as chemotherapeutic prods. and in diagnostic medicine and in analytical biochemistry. The (I) may be used as anticancer agent.

The use of new strains of *histeria monocytogenes akka*, *Corynebacterium parvum akka* and *Corynebacterium paraganulosum* NRRL B 11233-5, respectively, instead of new strain NRRL B-11232 is also disclosed. The use of any secondary antigen, esp. a virus or tumour cells, is disclosed. Other known coupling agents may be used instead of a diisocyanate. (6pp)

MERI D16 61853 B/34 = US 4285-931
Heat labile enterotoxin isolated from *Escherichia coli* - useful in a vaccine for protecting against diarrhoea

MERCK & CO INC 30.01.78-US-873181 (15.02.80-US-122092)

B04 C03 (25.08.81) *EP---3-692 A61k-37/02 A61k-39/02

15.02.80 as 122092 (965JB)

Immunisation against *E. Coli* induced diarrhoea comprises the admin. of 25-1000 micrograms of an enterotoxin (I) isolated from *E. Coli* culture filtrate. (I) has molecular wt. 10,000-13,000 as determined by gel filtration or by sucrose density gradient.

(I) contains 90% protein, 2% hexose, no 2-keto deoxy octonic acid, is a single chain protein with N-terminal alanine when determined by the dansylation method and SDS-acrylamide electrophoresis and shows no activity in the limulus lysate assay. Pref. (I) is administered to pregnant animals, to induce passive immunity in the offspring. (5pp)

BEEC D16 27702 C/16 = US 4285-932
Pharmaceutical compsn. contg. fibrinolytic enzyme deriv. - useful for treating venous thrombosis without uncontrollable bleeding

BEECHAM GROUP LTD 07.09.78-GB-035960

B04 (25.08.81) *EP---9-879 A61k-37/48 C12n-09/70 + C07c-103/52 C07g-07

20.08.79 as 068205 (965AS)

Pharmaceutical compsn. for treatment of Venous thrombosis comprises an acceptable carrier and an in vivo fibrinolytic

enzyme (I). The catalytic site essential for fibrinolytic activity is blocked by a gp. removable by hydrolysis, at a rate so that the pseudo-first order constant for hydrolysis is 0.000001-0.001 per sec in isotonic aq. media at pH 7.4 at 37 deg.C Pref. (I) is urokinase, streptokinase-plasminogen activator complex, vasculator activator or a mammalian plasma. Pref. the hydrolysable gp. is an acyl gp., esp. (substd.) benzoyl, or (substd.) acryloyl.

The affinity for fibrin is unaffected by the masking process. (10pp)

USSA★ D16 67857 D/37 ★US 4285-936
Polysaccharide antigen from *Pseudomonas aeruginosa* slime - useful for inducing immune response in subjects

US SEC OF THE ARMY 10.12.79-US-101620

B04 (25.08.81) A61k-31/70 A61k-39/10 C08b-37

10.12.79 as 101620 (1248KB)

Isolation of polysaccharide antigen (I) from the crude slime of *Pseudomonas aeruginosa* involves first adding 1% by vol. 10% cetyltrimethylammonium bromide soln., allowing the mixt. to stand for 30 mins. and then centrifuging to remove pptd. nucleic acids, adding 80% by vol. of 95% EtOH and collecting the resulting ppte. by centrifuging, and dissolving the ppte. in phosphate buffered saline.

The soln. was treated just as for the original slime to give a second ppte., which is subjected to acetic acid hydrolysis and heated at 90 deg.C for 18 hrs. then cooled to room temp. and centrifuged. The residual lipid polysaccharides, together with material recovered by CHCl₃ extrn. of the supernatant, are subjected to alcoholysis then centrifuged. The solid polysaccharides are recovered, dissolved in phosphate buffered saline, digested with nucleases to remove nucleic acids and extrd. with PhOH to remove proteins.

The polysaccharide prod. is kept at 4 deg.C for 12 hrs. and centrifuged, and the aq. layer is sepd. and subjected to alcoholysis to ppte. polysaccharides. This ppte. is sepd. by centrifuging and dissolved in phosphate buffered saline then applied to a 2.6 times 100 cm column of Sephadex G-100 (R.T.M.) equilibrated in the saline. The void vol. fractions are combined and subjected to alcoholysis to ppte. polysaccharides. The ppte. is dissolved in water and desalted on a 1.5 times 60 cm column of Sephadex G-50 equilibrated with distilled water or phosphate buffered saline at pH7.2 to isolate a prod. of molecular wt. 100000-300000 daltons. The (I) is a high molecular wt. and non-toxic and non-pyrogenic prod. that is highly effective in inducing an immune response in the host. (7pp)

MERE★ D16 67863 D/37 ★US 4285-963
Antibiotic C-076 cpds. from *Streptomyces avermitilis* ATCC 31267 - useful as anthelmintics, nematocides, insecticides and acaricides

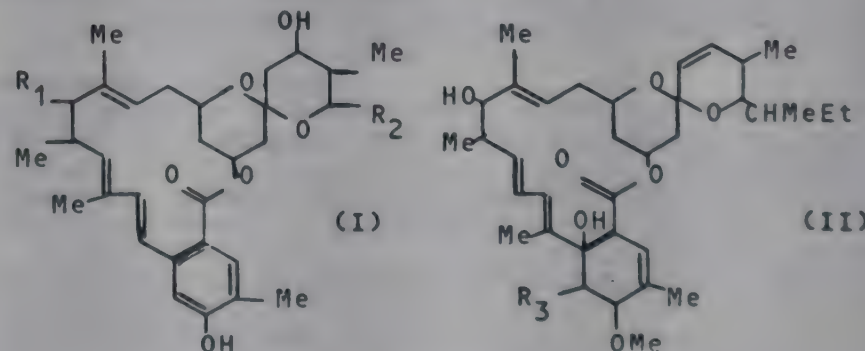
MERCK & CO INC 07.08.80-US-175615

B02 C02 (25.08.81) A61k-31/36 C07d-313/06 C07d-493/20

07.08.80 as 175615 (1248KB)

Antibiotic C-076 cpds. of formulae (I) and (II) are new: In (I) either (a) R₁ is OH and R₂ is SBU, (b) R₁ is O and R₂ is SBU or (c) R₁ is OH and R₂ is iPr; and R₃ is H or OH.

Cpds. (I) and (II) are broad-spectrum parasiticides, esp. anthelmintics, nematocides, insecticides and acaricides; they have good activity against parasites of the gastrointestinal tract in man. The cpds. are effective against *Tribolium* sp., *Tenebrio* sp. etc. that attack stored grains, and they may be used to protect the grains. Dose is 0.001-10 mg/kg. (6pp)



MILE★ D16 67869 D/37 ★US 4285-976
Brewers wort prodn. from malted and non-malted cereal - using alpha amylase derived from *Bacillus licheniformis*

MILES LABORATORIES INC 29.01.80-US-116574

(25.08.81) C12c-07 C12c-09

29.01.80 as 116574 (955AT)

Brewers wort is prepd. by forming a mash at 82-88 deg.C contg. 23-40 wt.% malted cereal and 60-70 wt.% unmalted cereal, based on total wt. of cereal, and an effective amt. of thermostable alpha amylase derived from *Bacillus licheniformis*, (b) keeping the

sh at this temp. until a large part of the starch has been defied; (c) cooling the mash to 60-65 deg.C, (d) adding more malted cereal so that 55-70 wt.% unmalted cereal and 30-45 wt.% malted cereal have been used overall; (e) raising the temp. to 72-deg.C, and holding until all the starch has been converted, and sepg. the wort from the mash. The method gives rapid and complete liquefaction of starch but does not involve heating to boiling which can produce off-flavours. It does not require separate cooker and mashing equipment. (4pp)

AD ★ D16 67870 D/37 ★ US 4285-976
Accelerated yeast autolysis - in presence of thiamine and/or pyridoxine

STANDARD OIL CO (IND) 23.11.79-US-096789
(25.08.81) A23j-01/18 A23l-01/28 C12c-11/34 C12n-01/06
11.79 as 096789 (367AT)

Yeast autolysis is carried out by incubating a yeast slurry at 40-60 deg.C for 2-16 hr. in the presence of at least 0.01 (pref. 0.01-0.4) wt.% of an additive (I) comprising thiamine and/or pyridoxine. Thiamine is pref. used in an amt. of 0.05-0.3 wt.% and pyridoxine in an amt. of 0.05-0.2 wt.%. The yeast is pref. baker's yeast (*Saccharomyces cerevisiae*). The autolysis rate can be further increased by gradually heating the yeast slurry to the incubation temp. over 20-180 (esp. 30-60) min and by adding at least one plasmolysing agent (esp. NaCl). In a pref. process, the slurry is incubated at 50-55 deg.C for 2-16 hr. in the presence of 1-6 wt.% NaCl, 0.05-4 wt.% EtOH, 0.05-3 wt.% dextrose and at least 0.1 wt.%. (I).

Yeast autolysates are used as seasonings for sauces, gravies, soups, etc., and as substitutes for meat extracts. Addn. of (I) accelerates the autolysis process. (3pp)

DOKE ★ D16 67878 D/37 ★ US 4285-985
Rubrolone pigments with improved sunlight stability - contg. quercetin-5'-sulphonate

COCA-COLA CO 25.03.80-US-133676
E23 (25.08.81) A23l-01/27
25.03.80 as 133676 (367AT)

New pigment compns. comprise rubrolone (I) and quercetin-5'-sulphonate (II), pref. in a (II):(I) molar ratio of 1-10:1 (esp. 2-5:1). In an example a beverage sample (A) was prepd. by dissolving 100 ppm (I) in a 0.01M citric acid soln. contg. 200 ppm Na benzoate as preservative. Another sample (B) was prepd. similarly with 100 ppm (II). The samples were placed in pyrex glass vials and exposed to direct sunlight. After an exposure of 1000 Langley, the % colour remaining (calcd. from absorbance at 525 nm) was 9.5 in case (A) and 59.2 in case (B). The value for sample (A) was still 41.2 after 1350 Langley. The compns. can be used to colour foodstuffs, esp. beverages or water-reconstitutable dry beverage mixes. (II) stabilises (I) against loss of colour on exposure to direct sunlight. (3pp)

AXT D16 62289 D/34 = US 4286-056
Prodn. of activated prothrombin complex concentrates - with control of degree of activation by control of activation conditions

BAXTER TRAVENOL LABS INC 28.01.80-US-116187
B04 (25.08.81) *WP8102-105 C12n-09/74 C12q-03
28.01.80 as 116187 (977MR)

Prothrombin complex contg. blood protein fraction is activated under conditions which produce enzymatically active blood clotting factors by (1) selecting at least one of the proenzyme activating conditions which is to be varied to control the degree of activation, (2) prior to completion of activation, determining the magnitude of the condition needed to activate the fraction to a predetermined degree of activation, (3) setting the condition to the predetermined degree of activation, (4) conducting the activation of the fraction in accordance with the condition, and (5) terminating the activation at the predetermined degree of activation.

The condition which is allowed to vary is usually the period of time the activation is allowed to proceed, though it may also be pH or temp. (11pp)

ERI ★ D16 67907 D/37 ★ US 4286-059
Prepn. of heteropolysaccharide 10 for thickening aq. systems - by cultivation of *Klebsiella pneumoniae* esp. ATCC 21711

MERCK & CO INC 04.11.77-US-848533 (11.11.71-US-197941)
A11 C03 F06 (A97) (25.08.81) C12n-01/20 C12p-19/04 C12r-01/*
04.11.77 as 848533 Div.ex.3933788 (26.06.73, 25.09.75, 22.09.76, 26.06.77-US-373724, 616739, 725595, 806801) (1248DJ)

Heteropolysaccharide 10 (I) is obtd. by submerged aerobic cultivation at 28-35 deg.C of a *Klebsiella pneumoniae* strain, esp. ATCC 21711, in a nutrient medium contg. hydrolysed starch or dextrose equivalent 20-35 as C source, and sources of Mg, P and

Material (I) contains about 3% protein and 97% carbohydrate, 9% of a uronic acid, 39% glucose, 29% galactose and 13%

fucose); and it is compatible with methylene blue chloride dye.

Material (I) is useful as a thickening, suspending and stabilising agent for aq. systems, esp. for textile printing pastes, for low drift aq. herbicidal compns., in foods such as salad dressings, in adhesive compns., in aq. paints to improve flow and leveling, as fluid loss control agent in drilling muds and water-flooding operations. The (I) is described in US3933788. (13pp)

GLUS/ D16 73577 C/42 #US 4286-060
Amino acid fermentation producing microorganism process - using a nutrient medium with hydrolysate contg. hexose and pentose as carbon source

GLUSCHENKO N V (HYDR) 23.04.79-DD-212424 (20.04.79-US-031754)

B05 E19 (25.08.81) *DD-143-269 C12p-13/14
20.04.79 as 031754 (931AT)

An amino acid is produced by a submerged cultivation of an amino acid-producing microorganism in a nutrient medium. The medium comprises nitrogen, mineral salts and a mixt. of hexose and pentose monosaccharides.

The monosaccharides are obtd. by percolation hydrolysis of cellulose-contg. plant raw materials which are purified to remove furfural, and contg. oxymethyl furfural and lignogummin substances in amt. 1-3 wt.% w.r.t. monosaccharides.

The prepn. uses an abundant, cheap carbon source, has a reduced number of prodn. steps and yields an end prod. of improved quality. (5pp)

CORG ★ D16 67908 D/37 ★ US 4286-061
Continuous cultivation of microbes - in plug flow reactor contg. microbes immobilised on porous support with controlled pore size

CORNING GLASS WORKS 23.06.80-US-162582 (05.09.78-US-939190)

B04 (25.08.81) C12n-11/14
23.06.80 as 162582 (1248HM)

Continuous cultivation of microbes in a plug flow reactor contg. the microbes immobilised on a porous inorganic support involves supplying nutrient medium at a rate sufficient to maintain them in a logarithmic growth state, while removing effluent contg. the microbes at an equal rate.

The microbes are bacteria, yeasts and fungus-like organisms, and the reactor is operated continuously in a plug flow mode with the immobilised microbes covered by the medium. The porous support has a controlled porosity such that at least 70% of the pores, on a pore size distribution basis, have a pore dia. that is (a) for bacteria, at least as large as the smallest major dimension of the bacteria but less than 5 times the largest major dimension; (b) for yeasts, similarly but up to 4 times; and (c) for fungi, similarly but up to 16 times.

The procedure is not subject to wash-out, and in the culturing process maximum specific growth rates can be achieved. (9pp)

STEK/ D16 41733 C/24 = US 4286-062
Hyaluronidase-contg. compsn. for accelerating meat-ripening - is prepd. from comminuted animal testicles treated with albumen material (NL 27.5.80)

STEKOLNIKOV LI (MEAT) 22.11.78-SU-687905
(25.08.81) *DE2945-970 C12n-09/96

14.11.79 as 094325 (931JB)

An enzyme meat tenderising agent is produced by comminuting the testes of slaughtered animals; extracting with an amt. of acidulated water to a pH of 4.5-4.7; and separating an aq. soln. contg. hyaluronidase from the mixt. obtd.

An albumin-contg. substance is then added to the soln., such that the ratio of the substances to the testes is 0.04-1.6:10-15. A suspension is formed, which is then subjected to concn. by evapn. at 25 deg.C or less. A concentrate of the prod. is obtd., which is then dried.

The prod. is stable upon storage. Further purification may be achieved by filtering the concentrate before drying. (3pp)

RIKL D16 40176 D/22 = US 4286-064
Enzyme compsn. for debridement of burns - purified from crude bromelain suspended in weakly basic buffer soln.

RIKER LABS INC 05.11.79-US-091041
A96 B04 (25.08.81) *WP8101-242 + C12n-09/50
05.11.79 as 091041 (945JB)

Process is for isolating a prod. from crude bromelain (I) useful in debriding devitalised tissue in mammals. Crude (I) is suspended in a buffer soln. of pH 8-10.5 to selectively solubilise the active components. Undissolved solids are sepd., then a portion of molecules of mol. wt. 10,000 or less are removed from the soln.

Opt. water insol. prods. formed in the preceding purificn. step are removed, and the soln. is concd., sterilised and lyophilised.

Suitably the buffer comprises Na borate and has pH 8.0-9.5. Sepn. of small molecules may be by dialysis against water.

High yields of a prod. with superior debridging activity are obtd. (5pp)

KALU/ ★ D16 67909 D/37 ★ US 4286-065
Microorganism cultivation on granular material - in tower with spaced stages with blades advancing material to next stage
KALUNIANTS K A 19.11.79-US-095667
(25.08.81) C12m-01/06
19.11.79 as 095667 (295AT)

Granular nutrient material is introduced at the top of a tower and enters the uppermost stage. This stage comprises a disc base plate on which an open-ended cylinder rests to retain the nutrient material. After a growth period, the cylinder is raised and the material is moved radially outwards to fall past the edge of the disc. The falling material enters the second stage which is of similar construction except that it is assembled on an annular base. The second stage discharges radially inwards through an axial aperture.

Scraper fingers extend from a central shaft which passes through all the stages. Rotation of the shaft causes the fingers to sweep over the base plates and advance the nutrient into the subsequent stage. The apparatus accepts waste from an animal-breeding farm and induces the growth of mycelia or bacteria under aerobic conditions to form a fertilizer.

The appts. accepts material on an intermittent basis. The

scraper fingers can be activated selectively to prevent excess working of the nutrient medium during light loads. (9pp)

BUTL/ ★ D16 67910 D/37 ★ US 4286
Continuous conversion of starch to sugar and fermentation - 1 distn. with power from internal combustion engine
BUTLER R S 24.06.80-US-162660
(25.08.81) C12m-01/02
24.06.80 as 162660 (295AT)

A moist, particulate feed contg. a starch is delivered from hopper into an auger. Starch is converted to sugar in the auger under the influence of a hot jacket and the resultant product discharged into a fermentation vessel. A fermented liquor continuously removed from the vessel and the solids component before feeding the remainder to a distn. column.

The appts. is powered by an internal combustion engine whose exhaust gas is used to heat the auger jacket. A section of auger is in a heat-exchange relationship with the distn. column. Pref, additional heat for distn. is provided by solar energy.

The appts. produces ethyl alcohol by a continuous process. (5pp)

See Also

D13 CA1104079	D13 DE3007383	D13 PT--68622
D15 BR8102769	D15 US4285719	D15 US4285821
D17 US4286058	D25 US4285841	

D17: SUGAR; STARCH

WENG- D17 38538 D/22 = US 4286-058
Prod'n. of sugars from starch-bearing materials - after soaking and then working and heating to gelatinise the starch

WENGER MFG 06.11.79-US-091798

E13 P71 (D16) (25.08.81) *EP--28-872 C12p-19/14

06.11.79 as 091798 (931JB)

Sugars are produced from a starch-bearing grain material by soaking it in an aq. medium until it is permeated and moisturised to 80% or more of the saturation level; and passing the treated material into the barrel of an elongated extruder contg. a rotatable conveying screw and an apertured flow-restricting extrusion die plate.

The screw is rotated to move the wet material along the length of the barrel at an elevated temp. and pressure during passage. The material is subjected to mechanical shear, then passed through the aperture of the die plate to gelatinise 95% or more of the gelatinisable fraction w.r.t. the wet material. At least part of the gelatinised material has a conversion time of 45 min or less, and an enzyme is added without drying the material to convert a portion to the sugars. (6pp)

See Also

D16 BE888562	D16 EP--34933
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D18: SKINS; HIDES; LEATHER; TOBACCO

ANTO/ ★ D18 D/37 ★ CS 7908-735
Synthetic tanning agent prepn.
ANTOS K 13.12.79-CS-008735
(30.06.81) C14c-03/18

FARB ★ D18 66220 D/37 ★ DE 3007-077
Highly soluble blue disazo dyes esp. for paper and leather - prepd. from di:amino:stilbene di:sulphonic acid and sulphonated naphthol coupler

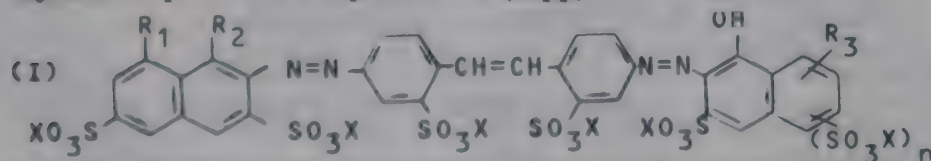
BAYER AG 26.02.80-DE-007077

E21 F09 (03.09.81) C09b-35/20

26.02.80 as 007077 (1251DJ)

Disazo dyes of formula (I) and their conc. aq. solns. (opt. contg. a water-miscible solvent) are new: (R₁, R₂ and R₃ are hydroxy or amino; X is Li, Na, K or HN(CH₃)(C₂H₄OH)₂, provided that at most one-third of the sulpho gps. have X as Li, Na or K; n is zero or 1). Pref. cpds. have R₁ hydroxy; R₂ amino; and when n is zero, R₃ is 6- or 7-amino, or when n is 1, R₃ is 5-amino.

(I) dye cellulosic material, esp. paper and leather in blue shades. The conc. solns. are formulated to contain 20-40 wt. % (I); where the HN(CH₃)(C₂H₄OH)₂ ions are replaced by metal ions the dyes have poor solubility in water. (11pp)



BADI ★ D18 66310 D/37 ★ EP--34-724
Opt. metallised tri:azo leather dyes - prepd. by reacting amino-sulpho-phenyl-azo naphthalene sulphonate with resorcinol-coupled diazo deriv.

BASF AG 16.02.80-DE-005940

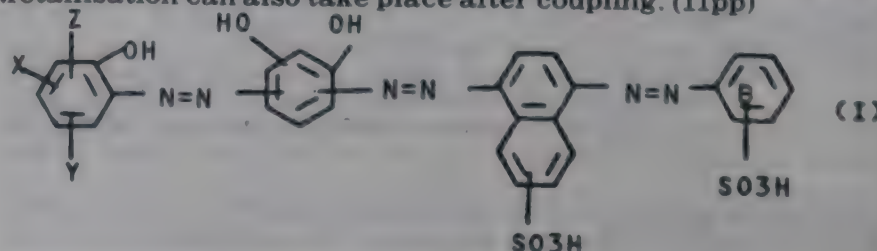
A60 E21 F09 (02.09.81) C09b-33/22 C09b-45/24

30.01.81 as 100671 (200KB) (G) No-citns.

New trisazo dyes have formula (I) (where X is nitro or hydroxysulphonyl; Y is nitro or hydroxysulphonyl and Z is H, or Z and Y together form an opt. nitro-substd. benzene ring and the ring B can be further substd. by Cl, Br, nitro, or pyrrolidine, piperidine, morpholine, N-Me-piperazine, hexamethylene-imine, hydroxysulphonyl or an opt. hydroxysulphony-substd. benzene ring) as the free acids, or consist of their Fe-, Mn-, Co-, Cr-, Ni and Cu complexes.

(I) are used for dyeing leather, polyamides and paper. Light-fast dyeings on leather are obtd. The dyes have high colour-strength and levelling properties.

(I) can be prepd. by reacting a diazo cpd. of an amino-sulphophenyl-azo-naphthalene-sulphonic acid deriv. with a resorcinol-coupled diazo cpd. opt. presence in metallised form. Metallisation can also take place after coupling. (11pp)



HIM ★ D18 66393 D/37 ★EP--34-922
 reating tobacco by extrn., removing potassium nitrate - then
 recombining extract and residue after adding potassium salt
PHILIP MORRIS INC 21.02.80-US-123247

E34 P15 (02.09.81) A24b-15/24
 9.02.81 as 300690 (1251AS) (E) US4131117 US4131118 US3847164
 US3616801 US3126011 US2029494 E(BE CH DE FR GB IT LI NL)
 Tobacco is treated by first forming an aq. extract, then removing
 KNO₃ from the extract, and adding a K salt (other than the
 nitrate) to the fibrous tobacco residue (A) or to the denitrated
 extract (B) before these two are recombined. Esp. enough K salt
 is added to restore the K level of the tobacco before extraction.

KNO₃ is removed from the extract (a) by membrane
 electrodialysis (opt. preceded by crystallisation) or (b) on a mixed
 bed of anion-cation exchange resin. The tobacco is pref.
 extracted with a denitrated aq. soln. of tobacco solubles and pref.
 K salts added are the citrate, acetate, phosphate, (bi)carbonate
 or malate.

The treated tobacco produces less nitrogen oxides (esp. NO),
 HCN and CO, when burned, compared with prods. from which
 KNO₃ has been removed but the K content not restored. (25pp)

PROD-★ D18 66453 D/37 ★FR 2475-057
 Water- and oil-proofing waxing compsn. esp. for leather -
 comprising mixt. of waxes, strongly lipophilic agent,
 fluorocarbon resin and organic solvent emulsified in water

PRODEF SOLITAIRE 31.01.80-FR-002111
A82 G02 (07.08.81) C09g-01/10
 31.01.80 as 002111 (950RP)
 Water- and oil-proofing waxing compsn. comprises a w/o
 emulsion comprising 10-30 wt.% water, 5-30 (10-25)% wax, 0.5-5%
 strongly lipophilic agent, 0.05-5% fluorocarbon resin and 50-70%
 organic solvent for the wax. The wax is pref. a mixt. of
 microcrystalline waxes of m.pt. above 80 deg.C and plastic waxes
 of m.pt. above 80 deg.C and pref. also contains a polyethylene
 wax of m.pt. above 100 deg.C.

For treating leather, wood and other substrates. The compsn.
 imparts the following props. to leather:- sharp increase in
 impermeability to water; reduction in amt. of water absorbed;
 depearling effect e.g. running of rain water on leather; reduction
 of migration by water of inadequately fixed colourants; and
 reduced staining in fatty materials. (13pp)

BADI D18 73034 A/41 = GB 1597-682
 Calcium oxide and sulphide free liming - by using combination of
 sodium hydroxide soln. with sodium sulphate and/or sodium
 di:carboxylate

BASF AG 02.04.77-DE-714813
(09.09.81) *DE2714-813 C14c-01/06
 31.03.78 as 012634 (974JB)
 A novel lime-free and sulphide free liming process comprises
 contacting a hide with an admixture of NaOH soln. and, as an
 agent for controlling the swelling of the hide, an Na salt of a 3-6C
 dicarboxylic acid. The dicarboxylate may be mixed with Na
 sulphate but the mixt. contains at least 10 wt.% of the
 dicarboxylate.

Pref. the mixt. contains more than 30 wt.% of the carboxylate.
 Pref. the NaOH concn. is 15-150 g/l. and the NaOH is at 2 wt.% or
 more w.r.t. the cured wt. of the hide.

Process can be carried out continuously and is non-polluting.
 (4pp)

IMPT ★ D18 66500 D/37 ★GB 2070-410
 Reconstituted tobacco sheet prodn. - from tobacco slurry of
 reduced water content, reducing energy requirements

**IMPERIAL GROUP LTD 06.02.81-GB-003723 (09.02.80-GB-
 004414)**
P15 (09.09.81) A24b-03/14
 06.02.81 as 103723 (955BZ)

A continuous tobacco sheet is prepd. by (a) forming a slurry
 contg. 35-60 wt.% ground tobacco particles of size below 60 B.S.
 mesh i.e. 250 microns. 4-10 wt.% binder and 30-60 wt.% water (b)
 extruding the slurry between a pair of contrarotating rollers to
 form a sheet, and (c) drying the sheet.

The method makes possible the reprocessing of tobacco fines
 and waste into sheets usable e.g. as cigarette filler, with reduced
 energy consumption, as the water content of the slurry is much
 less than in prior art processes. (6pp)

CELA D18 49533 U/35 = J8 1035-434
 Smoking mixtures - contg protein (hydrolysate) with high amino
 acid content for milder smoke

CELANESE CORP 09.02.72-US-224996
A97 P15 (17.08.81) *NL7301-771 A24b-03/14
 08.02.73 as 015219 (RH)
 Smoking mixtures are made by incorporating 0.1-5.0 wt.% (esp.
 1.0-2.5 wt.%) of protein (hydrolysate) of which 80% is composed of

aliphatic or heterocyclic aminoacids into dry processed tobacco or
 tobacco substitutes. Pref. a burnable base such as CMC is
 compounded with burning modifiers such as dolomite,
 diatomaceous earth, TiO₂, etc., fillers such as carbon, and
 proteins such as egg albumen, collagen, gelatine, soya protein,
 casein, etc., and water to form a catable dough which is cast into
 films, dried and chopped.

The smoke from these products is mild and less irritating to the
 smoker than similar materials made without the protein.
 (J48091299) (5pp)

DAIL ★ D18 67223 D/37 ★J8 1035-43
 Tobacco filter for selectively aldehyde(s) and ketone(s)
 comprises hydrophilic porous phenol resin contg. phenolic
 hydroxy and methylol gps. (J5 28.3.75)

DAICEL CHEM INDS LTD 26.07.73-JP-084414
A88 P15 (17.08.81) A24d-03/14
 26.07.73 as 084414 (22BZ)
 Tobacco filter, comprises hydrophilic porous phenol resin contg.
 phenolic hydroxy gps. and methylol gps. The present tobacco
 filter can remove selectively aldehydes and ketones. (J50031970)
 (3pp)

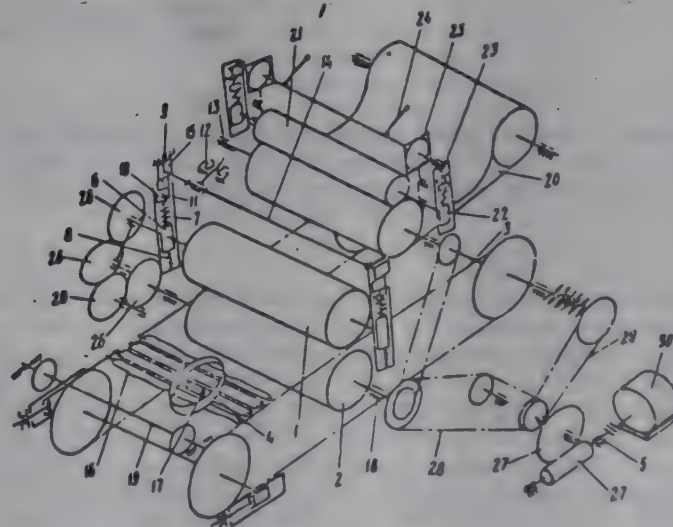
AKCH=★ D18 67298 D/37 ★SU -789-412
 Purificn. of hide treatment brine soln. - by adding waste slurry
 from prodn. of di:ethylaluminium chloride as impurity coagulant

AS KAZA CHEM OIL 31.10.78-SU-679382
(23.12.80) C02f-01/58
 31.10.78 as 679382 (314GW)
 A hide treatment brine is purified to remove proteins etc. by
 adding, as a coagulant, a waste slurry from the prodn. of diethyl
 Al chloride. The coagulated impurities are then sepd. the method
 provides a high degree of purificn.

Pref. slurry contains (in wt.% on element basis): Na 13.1-13.7,
 Al 12.8-14.9, Cl 53.3-56.4, C 12.8-17.5, H 1.9-2.9 and Br 0.1-0.3. (2pp)

DZAM=★ D18 67548 D/37 ★SU -791-372
 Continuous web cutter - has conveyor with plates carrying blades
 attached at two points along straight line perpendicular to feed
 direction

DZHAMBUL LIGHT FOOD 23.11.78-SU-687247
P22 (30.12.80) A43d-08/02 C14d-05
 23.11.78 as 687247 (89MI)
 Improved efficiency and reliability of the unit for continuous
 cutting of webs in the shoe industry are due to the feeder plates
 with ends attached to the conveyor. Each cutter includes several
 blades which are fixed to the plate at two points on a straight line
 that is perpendicular to the direction of the cutter advance.
 Bul.48/30.12.80. (3pp Dwg.No.1)

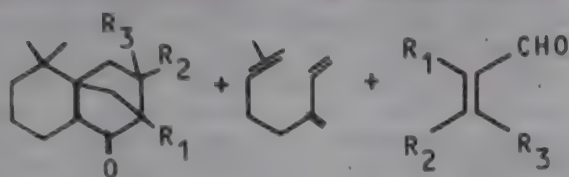


INFL ★ D18 67695 D/37 ★US 4285-349
 Enhancing organoleptic properties of smoking tobacco - using
 tri:cyclic bridged ketone(s)

**INT FLAVORS & FRAGR INC 23.10.80-US-200045 (16.11.79-
 US-095149)**
E15 P15 (25.08.81) A24b-03/12 A24b-15/30
 23.10.80 as 200045 Div ex 4250338 (513DJ)

The aroma or taste of a smoking tobacco is augmented or
 enhanced by incorporating an effective amt. of at least one
 tri:cyclic ketone of formula (I) in which R₁, R₂ and R₃ (same or
 different) are H or 1-3C alkyl. The (I) are claimed as new in
 parent specification US4250338 (15576 D/09) and impart a sweet,
 floral, woody, spicy, leathery and/or amber aroma and taste to
 tobacco compsn.

The (I) are made e.g. by reacting (II) with (III) and treating with
 proton acid and heating. The (I) may be incorporated e.g. into a
 cigarette paper, a filter or the tobacco. (26pp)



CELF- D18 89704 A/50 = US 4285-850
Mfr. of paper band for cigarette filter tips - structures band for high inhalation resistance coupled with mechanically strong tip

CELFIL CO ESTAB 11.08.77-CH-009888

F09 P15 + P72 (25.08.81) *BE-869-709 + B31f-01/22

14.11.79 as 094157 (+ 21.10.77-US-844839) (6JB)

Fibrous web, for making tobacco-smoke filter rods by laterally gathering the web, is pre-treated by non-contacting rolls with opposed peripheral ribs which produce spaced lengthwise corrugations, while imparting lateral stretch to loosen and expose fibres.

The max. distance between opposed ribs is 0.2 mm. and the max. tip width is 0.4 mm., the max. tip spacing being 2 mm. Specifically the ribs are continuous or gapped, and straight or wavy. The web gathers laterally without crushing. (16pp)

LEAT-★ D18 67743 D/37 ★US 4285-688
Leather treating wax compsns. - contg. animal and vegetable oils, animal fat, natural wax and paraffin wax

LEATHER LIFE INC 28.03.79-US-024670

G02 (25.08.81) C14c-09

28.03.79 as 024670 (367AT)

Leather cleaning and preserving compsns. comprise (a) 30-50 pts. wt. of neatsfoot oil, lard oil or a synthetic or petroleum oil having the same non-drying characteristics as these; (b) 20-30 pts.wt. olive, peanut, almond, hazelnut or peach-kernel oil; (c) 10-20 pts.wt. beef tallow, bone fat or mutton tallow; (d) 5-10 pts.wt. beeswax, spermaceti, carnauba, candelilla or wool fat; and (e) 5-10 pts.wt. paraffin wax.

Component (a) is pref. neatsfoot oil; (b) is pref. a mixt. of olive and peanut oil; and (c) is pref. beef tallow.

The compsns. are easy to apply, are rapidly absorbed, and impart long life to leather goods. (3pp)

SETO-★ D18 67744 D/37 ★US 4285-689
Tanning compsns. contg. poly:aldehyde-amine reaction prod. - for increasing hide shrinkage temp.

SETON CO 26.06.79-US-052149

E19 (25.08.81) C14c-03/06

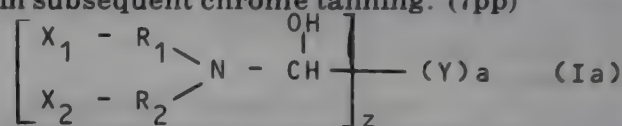
26.06.79 as 052149 (367AT)

Leather tanning compsns. contain the reaction prod. (I) of a polyaldehydic cpd. (II) and a sec. amine (III) in an amt. sufficient to increase the shrinkage temp. of the hide.

Also claimed are compsns. contg. cpds. of formula (Ia)-(where z is greater than 1; Y is a polyvalent hydrocarbon residue; R1 and R2 are alkylene; X1 and X2 are H or OH; a is O or I).

(II) is pref. a dialdetryde of formula $\text{OHC}(\text{CH}_2)_x\text{CHO}$ (where x is 0-4), esp. glutaraldehyde (IIa). (III) is pref. a water-soluble amine of formula X1-R1-NH-R2-X2 , esp. diethanolamine (IIIa) or methylethanolamine. The compsns. are pref. aq. solns. with a pH of less than 7 and are used for pretanning at 70-80 deg.C, using (I) in an amt. of at least 1 wt.% based on the limed wt. of the hide. This is pref. followed by chrome tanning with not more than 1.4 wt.% Cr2O3 equiv.

The compsns. are esp. useful for pretanning, allowing less Cr to be used in subsequent chrome tanning. (7pp)



See Also

D13 US4285984

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

COLG ★ D21 66081 D/37 ★BE -888-551
Opaque dental cream contg. two fluorinating agents - contains an opacifying agent e.g. titanium di:oxide, sodium mono:fluorophosphate, sodium fluoride and a low aluminium silicate

COLGATE PALMOLIVE CO 25.04.80-GB-013661

B06 E37 (17.08.81) A61k

24.04.81 as 888551 (395KB)

Opaque dental cream contg. 0.5-2 wt.% of an opacifying agent (pref. titanium dioxide); a fluorine-providing binary system comprising sodium monofluorophosphate, which provides 750-1225 ppm of fluoride, and sodium fluoride, which provides 50-1000 (50-100) ppm of fluoride; and 15-20 wt.% of a polishing agent comprising a synthetic silicate contg. up to 1% of bonded aluminium. The compsn. may also contain a minor amt. of a second polishing agent e.g. 0.5-1 wt.% of dicalcium phosphate and 0.1-0.3 wt.% of nacreous flakes. Used as dental cream which promotes buccal hygiene. Best results are obtd. using a relatively pure sodium monofluorophosphate e.g. greater than 90% pure contg. more than 12.7% fluoride, less than 1.2% of sodium fluoride and at least 12-1% of sodium monofluorophosphate. (10pp)

COLG ★ D21 66092 D/37 ★BE -888-598
Stable polymerisable compsn. contg. methacrylate monomer - stabilised by treatment with cation-exchange sulphonic acid resin

COLGATE PALMOLIVE CO 29.04.80-US-145192

A96 P32 (A12) (17.08.81) A61c A61k

28.04.81 as 888598 (510KB)

A polymerisable compsn. which is stabilised against premature activation of the catalyst contains (a) a methacrylate monomer with 2-4 polymerisable C:C bonds, which has been treated, before contact with the catalyst, with (b) a cation-exchange resin of the sulphonic acid type, in free acid form, and (c) a free radical

catalyst, in amt. to give a pre-determined rate and/or degree of polymerisation.

Pref., at least 50% of the monomer contains an aromatic ring. A reaction prod., (I) of bisphenol A and glycidyl methacrylate is claimed. Specifically a 1:1 mixt. of (I) and hexamethylene dimethacrylate is used. As (b), crosslinked, sulphonated polystyrene is pref. The ion-exchanger may be purified before use, by washing with acetone and drying.

Compsn. is used in dentistry. The compsn. is stable for some months at room temp. Once in position, the compsn. has good prolonged stability under varying conditions. The polymer is non-toxic and does not form irritants. (24pp)

COLG ★ D21 66093 D/37 ★BE -888-599
Polymerisable dental compsn. contg. methacrylate monomer - with cupric ions, peroxy catalyst and reducing agent, giving rapid hardening

COLGATE PALMOLIVE CO 29.04.80-US-145199

A96 P32 (A12) (17.08.81) A61c A61k

28.04.81 as 888599 (510KB)

A polymerisable dental compsn., showing more rapid hardening, contains (1) a methacrylate monomer with 2-4 polymerisable C:C bonds, (2) 0-400%, w.r.t. the monomer, of a particulate mineral filler, (3) 0-5%, w.r.t. the monomer, of a silane coupling agent, (4) an accelerator contg. cupric ions, and (5) 0.5-5%, w.r.t. the monomer, of (a) an organic peroxy free radical catalyst and/or (b) a reducing agent for the peroxy cpd. The amt. of (b) in the catalyst is not more than 40% of (a) + (b). The amt. of catalyst is low. The polymer has a relatively high content of insol. matter, and is stable in the human mouth.

The monomer pref. contains at least 40% of the reaction prod. (I) from bisphenol A and glycidyl methacrylate, and up to 60% of hexane 1,6-diol dimethacrylate (II). The fillers include silica, glass beads or rods, ceramic oxides, and pigments. The filler particles pref. have dia. less than 50 (less than 30) microns. (22pp)

RS/ ★ D21 D/37 ★CS 7909-357
 f-olly regeneration cream
SARSUNOVA M 27.12.79-CS-009357
 (30.06.81) A61k-07/48

GY/ ★ D21 D/37 ★CS 7909-358
 ir conditioning shampoo
HEGYIE 27.12.79-CS-009358
 (30.06.81) A61k-07/06

EGY/ ★ D21 D/37 ★CS 7909-359
 ly regeneration cream
HEGYIE 27.12.79-CS-009359
 (30.06.81) A61k-07/48

RE/ ★ D21 66200 D/37 ★DE 3006-659
 o:absorbable wound dressing, esp. for dentistry - comprising
 amed aminoacid polymer
STRECKBEIN R G 22.02.80-DE-006659
 P34 (D22) (03.09.81) A61I-15/*
 02.80 as 006659 (367RP)
 oabsorbable wound dressings are made of a foamed material
 mprising one or more monopolypeptides (I), i.e. polypeptides
 nsisting of chains of a single protein-forming amino acid. (I) is
 ef. poly-proline or poly-hydroxyproline. The void vol. of the
 am is pref. ca. 80%.
 The dressings are esp. suitable for use in dental surgery, esp.
 r stabilising blood clots in wounds resulting from tooth
 traction. They stabilise the clot against shrinkage and protect
 e wound from infection without causing allergic reactions.
 (1pp)

IOR/ D21 00802 D/02 =EP --34-595
 aque detecting and treating dental compsns. - contg. non-acid
 indicator and plaque inhibitor
THOREL J N 20.08.79-FR-020929
 B05 (02.09.81) *BE-884-850 A61k-07/16
 08.80 as 901502 Based on WP8100513 (941RP) (F) DE2415093
 S0804441 US3723613 E(AT CH DE FR GB LI LU NL SE)
 dental compsns. contg. at least one plaque indicator (I), at
 least one cpd. (I) is non-acid and the compsns. also contain at
 least one placue inhibitor (II), pref. a quat. ammonium or double
 rnary ammonium cpd., esp. cetyl pyridinium chloride or
 chlorhexidine. (I) is pref. neutral red, o-toluidine blue or methyl
 iolet.

The compsns. can be used for both detecting and treating
 laque, and have a synergic effect. They are non-toxic, stable,
 ater- soluble (allowing rapid removal after use) and have
 ceptable taste. They are selectively taken up by plaque and
 apidly give a colour with good contrast. They have bactericidal
 nd plaque inhibiting activity, indicate pH and reduce surface
 ension. (I) do not inhibit dextranase (c.f. erythrosine and iodine).
 (1pp)

ROC ★ D21 66355 D/37 ★EP --34-846
 ow viscosity, stable anti-dandruff lotion shampoo - contains
 ulphate surfactant, suspending agent, alkanol:amide and
 articulate antimycotic agent
PROCTER & GAMBLE CO 22.12.80-US-219281 (07.02.80-US-
 119283)
 B05 E16 (02.09.81) A61k-07/08
 3.02.81 as 200126 (916HM) (E) No-Citns. E(AT BE CH DE FR GB
 TLILU NL SE)
 Antidandruff lotion shampoo consists of 11-20% sulphate
 surfactant (A), 4-6% suspending agent (B), 2-4% of an
 lkanolamide (C), 0.2-4% of a particulate antidandruff agent (D)
 and 35-90% water. The compsn. should be free of alkali metal or
 ammonium chlorides. (A) are alkylsulphates or ethoxylated alkyl
 sulphates, (B) are ethylene glycol (16-22C) fatty acid esters,
 alkanolamides of (16-22C) fatty acid esters or (16-22C) alkyl
 dimethyl amine oxides or their mixts., and (C) are (8-14C) fatty
 acid alkanolamides.
 The compsn. has low viscosity without liq. sepn. (13pp)

AUBE/ ★ D21 66430 D/37 ★FR 2474-865
 Micronised dehydrated marine mud - useful for treating skin and
 muscular, articular and rheumatic disorders
AUBERT P 05.02.80-FR-002506
 A96 (D22) (07.08.81) A61k-35
 05.02.80 as 002506 (520HM)
 Micronised powder prepd. from marine mud, e.g. that from salt
 marshes, in prepd. by the following process. The mud is spread
 out as a thin layer on trays in a ventilated oven and heated at 40-
 45 deg.C to dry. It is then crushed and powdered. The resultant
 powder has the negative ionic charge of the mud, its organic and
 mineral base elements, trace elements, and its soluble proteins.
 In cosmetology, as a cream or mask, it acts against ageing of the
 skin and has an antiwrinkle effect. In balneotherapy, after addn.

to water which may be hot, it aids functional reeducation and the
 maintenance of general plasmatic tonus. In pharmaceutical
 specialities as a poultice it may be used to treat muscular,
 articular, or rheumatic disorders, or as an ointment to treat skin
 disorders. (7pp)

UNIL D21 80479 A/45 =GB 1597-497
 Antiperspirant soln. or solid complex - contains polymer
 particles contg. aluminium cpds. and neutral aminoacid
UNILEVER NV 26.04.77-GB-017344
 E33 (09.09.81) *DE2818-321 A61k-07/38
 24.04.78 as ----- (931JB)

An antiperspirant active agent comprises an aq. soln. of a basic
 Al chloride, bromide, -iodide or -nitrate, having an Al to anion
 molar ratio of 6.5-1.3:1. The soln. contains a neutral amino acid
 and a polymer species of size more than 100 Angstroms contg. 2-
 80 wt.% of the total Al.

Pref. the amino acid has 2-10C and is e.g. glycine, sarcosine,
 (phenyl)alanine or valine. The Al to amino acid molar ratio is 20-
 1:1. The agent also contains an additional 1-3C aliphatic alcohol.

The prod. may be used in the form of a soln., or as a powder
 obtd. from the soln. (7pp)

UNIL D21 80480 A/45 =GB 1597-498
 Antiperspirant cpd. prepn. - by heating a soln. of basic
 aluminium cpd. and aminoacid to form aluminium-contg.
 polymer particles

UNILEVER NV 26.04.77-GB-017345
 E33 (09.09.81) *DE2818-322 A61k-07/38
 24.04.78 as ----- (931JB)

An aq. soln of an antiperspirant active cpd. is prepd. by heating
 an aq. soln. of a mixt. of an amino acid and a basic aluminium
 chloride, -bromide, -iodide or -nitrate having an aluminium to
 anion molar ratio of 6.5-1.3:1.

The concn. of the basic aluminium cpd. in the soln. and the
 temp. and time of the heating are such that a polymeric species of
 more than 100 Angstroms is produced in amt. 2-80 wt.% (w.r.t.
 the aluminium) in the soln. Pref. the amino acid is a neutral 2-10C
 acid, e.g. glycine, (phenyl)-alanine, valine, sarcosine.

The prod. can esp. be packaged as an aerosol, roll-on, powder
 or stick. (11pp)

HITK D21 60129 B/33 =GB 1597-803
 Palladium contg. magnetic alloy - with relatively low melting
 point, contains nickel and/or cobalt

HITACHI METAL KK 06.02.78-JP-012206
 L03 M26 V02 (X12 X24) (09.09.81) *DE2820-377 C22c-05/04
 05.05.78 as 018067 (926PW)

Magnetic alloy is described which is useful in a laboratory for
 experimental purposes or for use by dentists or dental
 technicians. The alloy contains in % wt., at least 35 Pd; 0-79 Co; 0-
 80 Ni; 0-15 Cr; 0-30 Fe; 0-20 Cu; 0-3 Zn; 0-3Sn; 0-20 Pt; 0-30 Au; 0-3
 Ag; 0-3 Cd; 0-10 A-; 0-16.4 Mn, together with incidental ingredients
 and impurities. The alloy contains at least one of Co and Ni.

The alloy pref. contains 29-80 (15-56.5) Ni and 20-70 (7-57) Co. The
 m.pt. is pref. not more than 1350 deg.C and the alloy has a
 magnetic flux density B 100 of at least 2000 G in a magnetic field
 of 100 G.

Alloy has good corrosion resistance and is satisfactory for
 porcelain coating. (6pp)

SUNZ ★ D21 66757 D/37 ★J5 6092-208
 Skin-whitening compsn. - comprises refined extract of
 umbellales

SUN STAR HAMIGAKI K 27.12.79-JP-170614
 (25.07.81) A61k-07
 27.12.79 as 170614 (5RH)

Compsn. for skin-whitening use contains at least one kind of the
 refined extract of crude drugs which is obtained by (1) extracting
 at least one kind of crude drugs selected from (a) dokkatsu, (b)
 kyohkatsu, (c) senkyuh (Cnidii Rhizoma), (d) byakushi, (e)
 tohki(Angelicae Radix), (f) bohhu, (g) hamabohfu, (h) kohhon, (i)
 zenko, (j) saiko(Bupleuri Radix), (k) zukuzuishi and (l) toshishi,
 with hydrous alcohol, (2) if necessary, suspending thus obtained
 crude extract in water and (3) extracting it with hydrophobic
 polar solvent selected from ether, ester, ketone and alcohol. It is
 desirable to wash the extract with hydrophobic nonpolar solvent
 selected from aliphatic hydrocarbon, aromatic hydrocarbon and
 halo-hydrocarbon before or after extracting the crude extract
 with polar solvent.

The inventor had found that the extract of some crude drugs of
 Umbellales showed excellent beautifying and whitening effect on
 skin. The refined extract shows better effect than crude extract
 and that by washing the extract with hydrophobic nonpolar
 solvent, the effect of the refined extract can be further increased.
 (6pp)

LIOY ★ D21 66834 D/37 ★ J5 6092-808
Hair cosmetic for improving hair gloss - contains quat. ammonium salt, higher alcohol and hydrophobic silicone

LION CORP 27.12.79-JP-171997

A96 (A26) (27.07.81) A61k-07/06

27.12.79 as 171997 (5KB)

Hair cosmetic contains (a) 0.1-5 w/w% of the quat. ammonium salt (R1R2R3R4N)X (I), (b) 0.1-5 w/w% of 12-24C higher alcohol and (c) 0.01-5 (0.05-3) w/w% of the hydrophobic silicone which has the viscosity 1-1000 cs at 25 deg.C and is insol. in water. In (I), R1 or R1 and R2 is 10-24C alkyl, 10-24C hydroxyalkyl or R(OCH2CH2)m (where m is 1-10 and R is 10-24C alkyl or 10-24C hydroxyalkyl); R2, R3, R4 or R3 and R4 are 1-3C alkyl or - (CHR5CH2O)nH (where R5 is H or CH3 and n is integer 1-5); and X is halogen or 1-2C alkylsulphate.

Hair cosmetic makes hair glossy and emollient and improves brushing property of hair without making hair sticky. Damaged hair can be restored by the hair cosmetic contg. above three components as the essential ingredients. As hydrophobic silicon (c) methylpolysiloxane, methylphenylpolysiloxane, fatty acid modified polysiloxane, aliphatic alcohol-modified polysiloxane, polyoxyalkylene-modified Polysiloxane, etc. can be used. (9pp)

KAOS ★ D21 66835 D/37 ★ J5 6092-810
Suppressing damage of hair in permanent waving

KAOSOAP KK 27.12.79-JP-172421

A96 (A18) (27.07.81) A61k-07/09

27.12.79 as 172421 (5AT)

Drug compsn. for permanent waving use is characterised by contg. (a) 0.1-20 (pref. 1-10) w/w% cationic high molecular cpd. and (b) 0.01-5 (pref. 0.1-2) w/w% of surfactant selected from anionic and amphoteric surfactants. As surfactant polyoxyalkylene-alkylether sulphuric acid ester salt, alkylamine oxide, alkylbetain and imidazoline-type amphoteric surfactant, can be used. As cationic high molecular cpd. cationic cellulose deriv. cationic starch, dialkyl quat. ammonium salt-acrylamide copolymer, quat. polyvinylpyrrolidone deriv. polyglycol and polyamine condensate can be used.

As (a) a cationic cellulose deriv. of mol. wt. 100000-3000000 is pref. used. By permanent waving hair is inevitably damaged. The inventor has found that with second drug contg. both (a) and (b) hair can be waved with suppression of damage of hair and permanent wave can be held stably for long time. (7pp)

LIOY ★ D21 66836 D/37 ★ J5 6092-811
Hair setting compsn. - of amphoteric acrylic resin, polyoxyalkylene modified organo-polysiloxane and polyethylene glycol

LION CORP 27.12.79-JP-171998

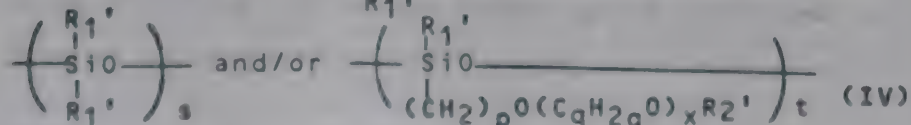
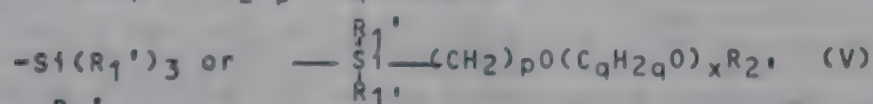
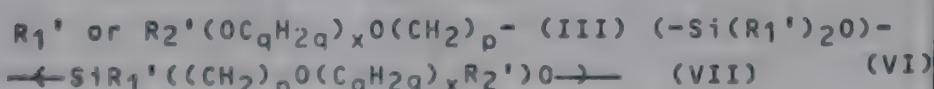
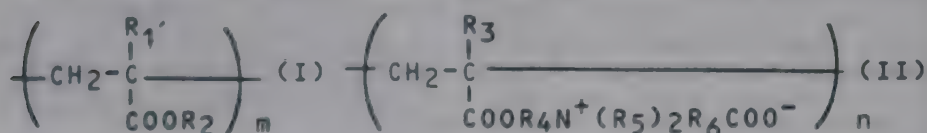
A96 (A14 A28) (27.07.81) A61k-07/11

27.12.79 as 171998 (5BZ)

Hair-setting agent compsn. contains (a) 0.3-10 w/w% pref. 1-3 w/w% of the amphoteric acrylic resin which consists of units (I) and (II) and has mole.wt. 30000-100000, (b) 0.05-3 w/w% pref. 0.1-0.2 w/w% of the polyoxyalkylene-denatured organopolysiloxane consisting of the unit (III), (IV) and (V) and (c) 0.02-3 w/w% of polyethyleneglycol.

R1, R3 are H or CH3; R2 is 1-18C alkyl; R4, R6 are 1-4C alkylene; R5 is H, CH3 or C2H5; m/m has molar ratio 1/4-4/1; R1' is CH3 or partly phenyl gp.; R2' is H or 1-5C alkyl. p is 1-5; q is 2 or 3; x is ave. number of oxyalkylene gp.; s, t are ave. number of the unit (VI) and (VII) respectively. Provided x, s and t are so decided that the copolymer contains 25-70 w/w% of polyoxyalkylene gp. and has the viscosity 10-100 cs at 25 deg.C.

The amphoteric acrylic resin (a) is non-sticky and shows good adhesive property and good curl-holding property and the polyethyleneglycol of mole.wt. 200-800 gives humidity-holding effect and emollient effect to hair. By combining specific silicone oil (b) the resin can be adhered to hair uniformly and as the result



glossiness and lubricating property can be given to hair and can be protected from damage by brushing. (7pp)

ISHF ★ D21 66980 D/37 ★ J5 6092-811
Gold alloy used e.g. as decorative or dental material - incl silver, copper and palladium, platinum, cobalt and/or nickel
ISHIFUKU KINZOKU KO 28.12.79-JP-170499
M28 (29.07.81) C22c-05/02 G04b-37/22

28.12.79 as 170499 (32KB)

A new gold alloy consists of Au 50-70%, Ag 15-25%, Cu 15-25% one or more selected from Pd 1-3%, Pt 1-3%, Co 0.1-1% and Ni 1%.

This gold alloy is useful as decorative craft material, dental material, outside material of watches, etc. The addns. of Pd, Co and/or Ni facilitates the age hardenability of the Au-Ag alloy without harming its original colour property. Prods. of alloy show good resistance to scratching and abrasion on use (5pp)

KAOS ★ D21 67090 D/37 ★ J5 6092-811
Water-in-oil cosmetic - prepd. by emulsifying branched ester with surfactant

KAOSOAP KK 28.12.79-JP-172221

E19 (01.08.81) A61k-07

28.12.79 as 172221 (42AS)

Cosmetic (I) is prepd. by emulsifying a branched ester (II) with surfactant (III) composed of (1) alpha-monoalkenyl glyceryl ether (94-43 wt.%) of formula R-OCH2CH(OH)CH2OH, where R is 12-straight alkenyl gp., (2) 10-22C satd. or unsatd. fatty acid polyvalent metal salt (IV) (0.4-9.8 wt.%), and (3) at least one inorganic or organic acid salts (V) (8-54 wt.%) having solubility in water at 20 deg. C higher than 0.2 g/100 g-water.

(II) is pref. an ester of 2-28C straight or branched, satd. unsatd., mono- or poly-valent fatty acid and 1-28C straight branched, satd. or unsatd., mono- or poly-valent alcohol, where one of the fatty acid or alcohol must be branched. (II) is e.g. heptyl undecyl isostearate, glycerol tri-2-ethyl hexanoate, hexadecyl-2-ethyl hexanoate, etc.

Since (I) contains more water c.f. other known w/o type cosmetics, it does not give a sticky feeling. (13pp)

KANE ★ D21 67091 D/37 ★ J5 6092-811
Three/phase skin cosmetic - contg. polyoxyalkylene alkyl phenyl ether, liq. oil, pigment, water-soluble salt and water

KANEBO KK 28.12.79-JP-172449

A96 E14 (E37) (01.08.81) A61k-07

28.12.79 as 172449 (42AS)

Liq. dermal cosmetic (I) comprises (a) 0.05-3.0 wt. polyoxyalkylene alkyl phenyl ether (II); (b) 3-25 wt.% liq. oil (III); (c) 0.5-15 wt.% pigment (IV); (d) 0.05-3.0 wt.% water-soluble salt (V); and (e) 30-95 wt.% water. Cosmetic forms an emulsion when shaken. (I) gives a refreshing feel to the skin, and is used as liq. foundation, liq. make-up cosmetic, toilet powder, etc.

(III) is e.g. higher aliphatic hydrocarbon, animal or vegetable higher fatty acid, higher alcohol, ester oil, silicone oil or the mixt. (IV) is e.g. titanium dioxide, talc, zinc white, kaolin, calcium carbonate, aluminium silicate, magnesium silicate, iron oxide red, iron oxide yellow and/or black iron oxide. (V) is e.g. potassium dihydrogen phosphate, potassium monohydrogen phosphate, sodium dihydrogen phosphate, sodium monohydrogen phosphate, alum, aluminium sulphate, aluminium hydroxychloride, zinc sulphate and/or sodium carbonate. (10pp)

PROC ★ D21 67092 D/37 ★ J5 6092-811
Toothpaste compsn.

PROCTER & GAMBLE CO 15.10.79-US-084485

(01.08.81)

LIOY ★ D21 67092 D/37 ★ J5 6092-811
Gel compsn. orally applied to prevent dental caries - comprises glycerol or propylene glycol with polymer e.g. hydroxy ethyl cellulose, stannous fluoride and phytic acid derivs.

LION DENTIFRICE KK 28.12.79-JP-172339

A96 B06 (B05) (01.08.81) A61k-09/06 A61k-33/16

28.12.79 as 172339 (42BZ)

A gel-compn. (I) composed of a base material, moisture-holding agent (II), binder (III), stannous fluoride (IV) and phytic acid cpd. (V) is new.

(II) is glycerol, propylene glycol, xylitol or polyethylene glycol, etc. Water-soluble nonionic polymer (III) is hydroxy ethyl cellulose, alginic acid-propylene glycol ether, xanthan gum or guar gum, etc. Pref. contents of (II) and (III) in (I) are 8-35 wt.% and 0.5-4% respectively. (V) is phytic acid or its derivs., obtd. by substitution of a part of phosphoric acid-gp. at 1-6 positions of

phytic acid, or of whole part of hydrogen, by metal. The phytic acid-derivs. are chosen from sodium, potassium and lithium nitylates etc. (I) should contain 0.04% or more (IV). The content of (V) should be 0.5-1.5 mole per mole of (IV). Surfactant, sweetener, antifungal agent, perfume, etc. may be mixed in (I).

(I) maintains its viscosity and adhesiveness, and exhibits its effect for prevention of dental caries for a long period, when applied in mouth. (5pp)

ARN- D21 84864 X/45 #J8 1035-167
unscreens compsn. contg. rice bran oil - has an extremely high transmittance ratio of rays in the tanning region to that in the burning region

CARNATION CO 11.02.74-US-441082 (14.05.75-JP-056202)
(15.08.81) *US3988-436 A61k-07/42

14.05.75 as 056202 (DH)

Skin is protected against UV radiation of wavelength 2950-3150 nm by applying sufficient rice bran oil to the skin to absorb the radiation. The oil absorbs a very high proportion of radiation in the range given (the burning region) yet has an extremely high ratio of transmittance of rays in the tanning region to that in the burning region.

It has excellent stability on exposure to sunlight, is both non-toxic and non-irritating to the skin and is soluble in oils and common solvents for ease of application to the skin. (J51133434). (4pp)

ASAHI D21 25198 X/14 = J8 1035-196
N4-acyl-cytidines prepn - by reacting cytidine with acid anhydride

ASAHI CHEMICAL IND KK 12.08.74-JP-091493
B03 E13 (15.08.81) *J51019-779 A61k-07/40 C07h-19/06 + C09k-03

12.08.74 as 091493 (DH)

Method consists of reacting cytidine with an acid anhydride derived from fatty acid of 5-46C in water or a water-miscible organic solvent contg. water. In order to selectively acylate the amino group of cytidine in good yield, at least equimolar amt. pref. 2-3 mole of the fatty acid anhydride to 1 mole of cytidine, and at least equimolar amt. e.g. 20-100 mole of water to the fatty anhydride are used. The reaction may be carried out at room temp. to 80 deg.C pref. at room temp. for 24-48 hrs. or at 70-80 deg.C for 3-5 hrs.

The prods. are useful as lipophilic ultra-violet adsorbing agents. They are also useful as starting cpds. in the prepn. of anti-tumour agents e.g. N4-acyl-1-beta-D-arabinofuranosyl- cytosine. (J51019779) (7pp)

KAOS D21 06033 C/04 = J8 1035-719
Soap contg. tri:chloro-hydroxy-di:phenyl ether antibacterial - and phosphorus oxyacid or alkyl-phosphate to prevent discolouration

KAOS SOAP KK 22.12.78-JP-159628
A96 E19 (19.08.81) *GB2025-451 C11d-09/50

22.12.78 as 159628 (1251)

Antibacterial soap contains 2,4,4'-trichloro-2'-hydroxy- diphenyl ether (I) at 0.05-5 wt.% and, as discolouration-preventing agent (A) 1 or more P-contg. cpd. of formula

RO-P(=O)(OR1)-OM

(III), or phosphorus oxyacid (salt).

In (I) R is 8-20C alkyl or R1(OCHR2 CH2)n-; R1 is 8-20C alkyl and R2 is H or CH3; n is 1-10; R' is as R or is M; M is H or alkali metal.

(A) is pref. an oxyacid (salt) at 0.01-10 wt.% or an ester at 0.1-20 wt.%. Specified (A) are ortho-, pyro-, tri-, tetra-, trimeta-, tetrameta- or hypo-phosphoric acids, H3PO3 or 8-20C monoalkyl phosphates.

Used for skin and hair treatment. (I) is an effective antibacterial and (A) prevents discolouration of soaps contg. (I) when exposed to sunlight. (J55086900) (4pp)

NPDC D21 19722 V/11 = J8 1035-752
N-halogenoamine soln formed in situ - for cleaning teeth and removing caries and tartar

NATIONAL PATENT DEV CORP 26.10.72-US-301142
(24.08.72-GB-039591)

B05 E19 + P32 (E33 E34) (19.08.81) *DE2331-176 A61c-17 A61c-19 A61k-06 A61k-07/22 + C25b-03/06

25.06.73 as 071598 (BZ)

The stages of the process are (1) the prepn. of an aq. soln. contg. (a) the halide (Cl, Br, I) of an alkali(ne earth) and (b) an amino-cpd., (2) electrolytic decompsn. to form free halogen and (3) reacting the free halogen with the amino-cpd. In-situ formation ensures immediate and direct application to the teeth of the unstable prod. (J50105601) (5pp)

ARMO ★ D21 67812 D/37 ★ US 4285-826
Toilet soap bars giving improved skin feel - contg. ethoxylated or propoxylated cpds. to reduce transpiration water loss

ARMOUR-DIAL INC 14.04.80-US-140502

A96 E19 (25.08.81) C11d-09/26

14.04.80 as 140502 (955RH)

Soap compsns. comprise 60-95 wt.% anhydrous alkali metal, ammonium or alkanolamine soap of 12-18C fatty acids, 5-25 wt.% moisture, 0.02-5 wt.% ethylene oxide polymer of D.P. 2,000-90,000 (A) and 0.1-15 wt.% of (B) one or a mixt. of (i) polypropoxylated cpds. of formula R-(OCHCH3CH2)nOH where R is 3-6C hydrocarbyl, n is 9-50; (ii) cpds. of formula R(CO)y(OCHCH3CH2)nOH where R is 7-35C hydrocarbyl, n is 9-50, y is 0 or 1. (iii) cpds. of formula R(CO)y(OCH2CH2)nOH where R is 3-35C hydrocarbyl, n is 9-50, y is 0 or 1.

The compsns. give improved skin feel but do not cause increased transpirational water loss, which occurs with compsns. contg. high mol. wt. ethylene oxide polymers alone. (5pp)

ESTE- ★ D21 67864 D/37 ★ US 4285-967
Cosmetic for reducing redness of skin blemishes - comprises aq.-alcoholic vehicle including phenylephrine hydrochloride vasodilator and astringent cpd.

ESTEE LAUDER INC 04.02.80-US-118053 (30.06.78-US-920931)

B05 E14 (25.08.81) A61k-31/13

04.02.80 as 118053 (914RH)

Cosmetic compsn. for reducing the redness of skin blemishes comprises an aq. cosmetic vehicle including 0.1-1.0 wt.% of phenylephrine hydrochloride (vasoconstrictor) and 0.25-3.0 wt.% of an astringent chosen from metallic astringent cpds. and organic acids. (All percents are based on the total wt. of the compsn.).

Pref. the aq. cosmetic vehicle is a mixt. of 20-40 pts. water and 60-80 pts. ethanol. The metallic astringent cpd. is pref. a Zn or Al cpd., esp. zinc phenolsulphonate. The compsn. pref. also includes 1-6 wt.% antiseptic (esp. boric acid) and 1-10 wt.% of humectant.

The compsn. is esp. for reducing the redness of facial blemishes by constricting the small broken capillaries on the skin. The blemish does not need to be masked prior to application of make-up. (4pp)

ALBE ★ D21 67867 D/37 ★ US 4285-978
Protective skin lotion contg. lactate and quat. ammonium salt - to improve binding of quat. ammonium cellulose ether to skin

ALBERTO CULVER CO 20.07.79-US-059441

A96 (25.08.81) A61k-07/48

20.07.79 as 059441 (955HM)

Protective skin lotion is an oil-in-water emulsion contg. 5-35 wt.% cosmetic emollient oil, 95-65 wt.% water phase, and 0.05-3.0 wt.% quat. ammonium cellulose ether polymer. The improvement comprises adding 0.3-3.0 wt.% of Na, K or NH4 lactate to the water phase which has pH 5.0-6.0, and 0.5-4.0 wt.% of an oil soluble quat. ammonium salt to the oil phase, based on wt. of the compsn. The quat. salt is a dimethyl-di-(12-18C)-alkyl chloride or sulphate.

The lactate and the quat. salt act synergistically to increase the binding of the quat. ammonium cellulose ether to the skin. (5pp)

See Also

D16 SU-789581

D25 J81035715

AGRO- ★ D22 66090 D/37 ★ BE -888-592
Conveyor for continuous can steriliser, esp. hydrostatic - has pockets fixed rigidly between side chains for less maintenance and smaller track turn radii

AGROBER MEZOGAZDAS 29.04.80-HU-001060
Q31 Q35 (17.08.81) B65b B65g

28.04.81 as 888592 (448RH)

An internal conveyor for a continuous steriliser of canned prods. The conveyor is of the type which has two side chains between which transverse carrier pockets are rigidly fixed to end brackets attached to corresp. points of opposed chains. The steriliser is of the type, e.g. hydrostatic, in which the conveyor tracks vertically up and down via 180 deg. turns.

Each end bracket is now rigidly fixed to two successive link pins of its side chain, so that each pocket retains its relative disposition to the side chains despite changes in direction of the conveyor. Pref. each bracket is removably attached to its link pins.

Each pocket is pref. tubular and made up of two parts, i.e. an exterior tubular section, fixed to the brackets and having a longitudinal access port, and an interior, coaxial rotary shutter panel to close the port and retain cans in the pocket. The shutter panel is pref. easily renewable in the exterior section of the pocket. Each pocket is pref. of circular cross-section and made of perforated metal.

By fixing the bracket to two successive link pins, the pivotal suspension bearings which require special lubrication, and bracket track guides are obviated. Initial cost and maintenance problems are greatly reduced. The minimum radius of conveyor U-turns can be cut down considerably. A more compact steriliser can be employed for a given throughput. The conveyor can be economically installed in an existing steriliser without major modifications. (20pp)

GALE- ★ D22 66094 D/37 ★ BE -888-601
Dairy industry disinfectant compsn. e.g. for cow's udders - contains glutaraldehyde, metal ions and emollients, based on wool fats, lanolin and alkylated fatty acid ester(s)

GALEN LTD 28.04.81-BE-888601

B05 C03 E19 P13 (E37) (17.08.81) A01j A01n A61k

28.04.81 as 888601 (395HM)

Disinfectant composition for use in the dairy industry has a pH below 7 and contains water or a mixt. of water and a 1-3C monohydroxy-alcohol, glutaraldehyde, a mono-, di- or tri-valent metallic ion and an emollient which is soluble in the composition or may be solubilised in it and is based on wool fat or its derivs or branched alkylated fatty acid esters or mixtures of these esters.

Preferred emollients are anhydrous lanolin, polyoxyalkylenic, e.g. polyoxyethylenic, derivs of wool fats e.g. lanolin, such as anhydrous lanolin ethoxylated with 40-70 moles of ethylene oxide or alkylated branched fatty acid esters e.g. PCL liquid (RTM) or Weo-PCL (RTM). The emollient comprises at least 0.1-15 wt./vol%, pref. about 2 wt./vol%, of the composition.

Dairy disinfectant e.g. for washing udders, which is effective and does not cause dermatological problems e.g. skin cracks in teats. (22pp)

JANC ★ D22 D/37 ★ BR 8100-639
Wood preserving and protection cpd. and antiseptic detergent compsn.

JANSSEN PHARMACEUT NV 04.02.80-CH-000870

C03 E19 F09 P34 (18.08.81) A01n-43/68 A61l-02/16

LINA- ★ D22 66118 D/37 ★ CA 1104-926
Animal and insect repellent flexible polymeric material - with microscopic pores contg. repellent material

LINAMAR POLY PROD 03.03.78-CA-298196

A92 C03 (14.07.81) A01n-17/12

03.03.78 as 298196 (1248HM)

Flexible film of polymeric material has closely spaced microscopic pores extending part-way through the thickness of the film. The pores have a chemical animal and/or insect repellent material absorbed in them to impart repellent properties to the film.

The film has long-lasting repellent properties, as the repellent is resistant to environmental removal. The film is esp. useful in the prepn. of garbage bags, since they may be made repulsive to cats, dogs, and other animals and insects. (6pp)

VELW ★ D22 66123 D/37 ★ DD -148-855

Nappy pant having flexible sealing insert - of closed cell low density pref. polyolefin foam having specified flexural rigidity

VEBLEUNA-WERK WULBRICH 14.12.79-DD-217681

A96 F07 P21 (17.08.81) A41b-13/04

14.12.79 as 217681 (200DJ)

Nappy pants are provided with a flexible foam stretch insert. The foam has closed cell structure, density 0.12-0.36g/cc., thickness

1.4-9.6mm. and flexural stiffness 370-720pcm.

The foam consists esp. of an extruded uncrosslinked polyolefin foam, pref. a mixt. of polyethylene and EVA copolymer, the vinyl acetate content of mixt. being 0.05-17(0.1-2)wt.%. The foam is pref. welded to a nappy pant section and can consist of one or more superimposed sections.

The nappy pants are suitable for new-born and very young babies. The foam insert allows stretching and seals the thigh openings against the escape of liq. (6pp)

TITM- ★ D22 66247 D/37 ★ DE 3007-39
Contact lens preservative and rinsing soln. - contg. ethylenediamine tetra:acetic acid in addn. to chloro-hexidine, thiomersal and polyvinyl pyrrolidone

TITMUS EUROCON KONT 27.02.80-DE-007397

A96 E16 P81 (03.09.81) G02c-13

27.02.80 as 007397 (200DJ)

Aq. isotonic storage- and rinsing solns. for contact lenses contain EDTA or its Na salt, as complexing agent, and pref. also Na pyrosulphite, as anti-oxidant, in addn. to chlorohexidine and thiomersal, as preservative and disinfectant, and PVP as protecting polymer, in a buffered salt soln. having pH 7.4.

The solns. are suitable for soft and hard lenses and also act as solvents for a protein-remover.

EDTA prevents protein-remover inactivation. EDTA and sulphites form activators for the papain and chymopapain protease mixt. in protein-remover. The protein-remover soln. is not exposed to microbial attack. The preserving soln. is not inactivated by proteins. The anti-oxidant prevents rinsing soln. discolouration. (11pp)

ICIL ★ D22 66299 D/37 ★ EP -34-684
Antimicrobial 1,3-di:formyl:oxy-2-bromo-2-nitro-propane - prepd. by esterification of bromo:nitro:propane with formic acid mixed anhydride using basic catalyst

IMPERIAL CHEM INDS LTD 20.02.80-GB-005801

C03 E16 F09 (02.09.81) A01n-37/12 C02f-01/50 C07c-76/02 C07c-79/18 D21h-03/08

18.12.80 as 304603 (949KB) (E) GB-874064 US3151020 US2873249 DE2647392 E(BE CH DE FR GB IT LI NL SE)

1,3-Diformyloxy-2-bromo 2-nitropropane HCO-O-CH₂-C(Br)(NO₂)-CH₂-O-CHO (I) is new. (I) may be prepd. by reaction of 2-bromo-2-nitro-1,3-propanediol (II), in the presence of a basic catalyst with a mixed anhydride of formic acid and a higher fatty acid prepd. in situ. Pref. the mixed anhydride is prepd. by mixing formic acid with excess higher fatty acid anhydride. Pref. higher acid is acetic acid and pref. basic catalyst is pyridine.

(I) is a biocide used at e.g. 1-5000 ppm for protecting e.g. aq. medium against attack by microorganisms. (I) is esp. useful in industrial cooling water, paper mill liquor and swimming bath water' (I) has a high rate of activity. In examples, activity is shown against aerobic and anaerobic bacteria e.g. Pseudomonas aeruginosa, Enterobacter cloacae, Desulphovibrio desulphuricans, and algae, e.g. Alcyrodesmus augustus, Chlamydomonas reinhardtii and Stichococcus bacillaris. Activity is at least as good as, and often very much better than commercial preps. (11pp)

INOT- ★ D22 66365 D/37 ★ EP -34-869
Sterilisation in chamber by alternating vacuum and gas cycles - with mixt. of carbon di:oxide nitrogen and oxygen

IND OTTICHE RIUNITE 25.02.80-IT-020156

P34 (02.09.81) A61l-02

20.02.81 as 200205 (295HM) (E) No-Citns. E(AT BE CH DE FR GB LI LU NL SE)

A material to be sterilised is placed in a chamber having indeformable walls which is then filled with a gas. The gas is capable of modifying the metabolic process of the bacterial cells to be sterilised and is typically selected from carbon dioxide, oxygen and nitrogen. After the gas has been applied for a predetermined period, the chamber is evacuated and the vacuum is applied for a preset period.

The sterilising process includes a number of alternating gas/vacuum cycles, the number of cycles, their duration and the gas pressure being chosen according to the bacteria being sterilised. Pref. the material is stirred during sterilisation.

The appts. can process a wide variety of materials e.g. Petri dishes, or blood esp. a cell culture of peripheral venous blood. (20pp)

GOOR D22 65319 A/37 = GB 1597-613
Interpolymers of increased water-absorption capacity - from acrylic acid, ester(s) and nitrile(s) or amide(s)

GOODRICH B F CO 04.04.77-US-784100

A14 + P34 (A96) (09.09.81) *BE-865-630 C08f-220 + C08f-216/12

31.03.78 as 012618 (965PW)

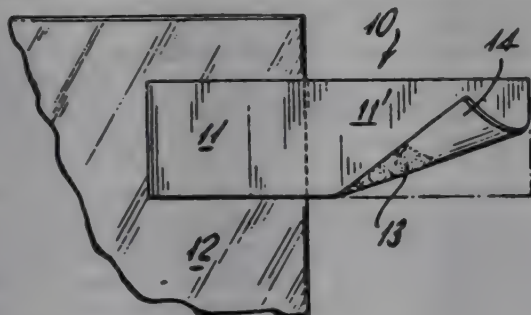
New interpolymers comprises 40-87 wt.% of an olefinically unsatd.

carboxylic acid monomer, 2-20 wt.% of an acrylic ester monomer formula $\text{CH}_2:\text{C}(\text{R}')-\text{C}(\text{O})-\text{O}-\text{R}$ and 5-30 wt.% of at least 1 alpha-olefinically unsatd. nitrile or monoolefinically unsatd. amide having at least 1 H on the amide N and the olefinic unsatn. adjacent alpha or beta to the carbonyl gp. R' is H or (m)ethyl. R contains 10-30C atoms. Pref. the interpolymer has molecular wt. 100-1000000 (50000-900000). Pref. the carboxylic acid monomer contains a terminal methylene gp., and is esp. $\text{CH}_2:\text{C}(\text{R}_2)\text{COOH}$. R_2 is H, halo, (ar)alkyl, aryl, or cycloaliphatic. The polymers rapidly absorb and retain large quantities of water. They are used for personal care prods., and in nappies and medical dressings, etc. (8pp)

IJ ★ D22 66491 D/37 ★GB 1597-799
Disposable diaper with repositionable tape tab - having pressure sensitive adhesive peeling before tab film tears
JOHNSON & JOHNSON 25.05.77-US-800369
A96 P21 (09.09.81) A41b-13/02
05.78 as 021079 (1358AS)

The diaper has a thin plastics film outer layer and a repositionable tape tab of thin flexible plastics film with one segment(11) fixed to the outer layer and a second(11') for attachment to the outer layer. The second segment end(14) is free of adhesive to form a pull tab, and the remainder is coated with pressure-sensitive adhesive(13) for quick-stick adhesion of 7 oz/in. and peel adhesion of no more than 8.3 oz/in. w.r.t. the outer layer.

The outer layer is pref. matte type embossed film, and the tab is of polypropylene film which is elastic and has a thickness of 4 mils. or less. The adhesive is pref. a styrene-butadiene polymer modified with natural resin esters. (6pp Dwg.No.1)



MIN ★ D22 66558 D/37 ★GB 2070-831
Copolymer of butyl acrylate ethyl-hexyl acrylate and acrylic acid as pressure sensitive adhesive for medical dressings
SMITH & NEPHEW LTD 03.03.81-GB-006707 (05.03.80-GB-007410)

A14 G03 (A81 A96) (09.09.81) C08f-220/18
03.81 as 006707 (1302RH)

The adhesive copolymer of 16-62 wt.% n-butyl acrylate, 34-80 wt.% ethylhexyl acrylate and 4-10 wt.% acrylic acid has a K-value of 0-110 (equiv. to inherent viscosity 1.7-3.0 dl/g).

Used as a pressure sensitive adhesive for medical dressings. It has cohesive strength and adhesion to wet skin and allows moisture transmission.

The copolymer pref. comprises 45-55 wt.% each of the butyl and ethylhexyl acrylate and 5-7% acrylic acid. It is applied to a dressing as a 20-45% soln. in acetone or ethyl acetate to form a 15-40 g/sq.m coating of moisture vapour transmission at least 300 g/sq.m/24 hours. (4pp)

IBU- ★ D22 66649 D/37 ★J5 6091-836
Water absorbing material - comprising (semi)solid or liq. alginate(s) e.g. sodium, calcium, magnesium, aluminium, iron, nickel, tin, lead and copper alginate(s)

KIBUN KK 27.12.79-JP-169425
A91 J01 P15 P34 (A11) (25.07.81) A24d-03/08 A611-09/* B01d-53/34 B01j-20/24

27.12.79 as 169425 (96HM)

The absorbing material comprises single or mixed alginates in the form of (semi)solid or liq. The alginates are Na, Ca, Mg, Al, Fe, Li, Sn, Pb or Cu alginates.

The absorbing material is easily handled, and may be used in combination with conventional absorbing material e.g. silica gel, clay and activated C, or as substitutes for these materials.

In an example into 3000ml of 5% aq. CaCl_2 soln. was slowly added 400g of sodium alginate powder with stirring. It was allowed to stand for 5 h. Then, the mixt. was filtered, and the solid obtd. immersed in 3000 ml of water, and well stirred, and again filtered and washed with water. Gel-like absorbing material was obtd. If desired, the gel-like material was dried to obtain Ca alginate powders. (14pp)

NIPK ★ D22 66650 D/37 ★J5 6091-838
Water-absorbing material - comprising copolymer of water-insoluble unsatd. carboxylic acid, metal salt of acid and water insoluble unsatd. and multifunctional monomers

NIPPON KAYAKU KK 27.12.79-JP-169441

A96 P21 P34 (A14 A97) (25.07.81) A41b-13/02 A611-15 B01j-20/26 C09k-17

27.12.79 as 169441 (51HM)

Water absorbing material used in medical, food or horticultural industries consists of a copolymer of (A), (B), (C) and opt. (D). (A) is a water-insol. unsatd. carboxylic acid, e.g. (meth)acrylic, maleic, fumaric, itaconic, or crotonic acid; (B) is a monovalent metal salt of the carboxylic acid e.g. a Na, K or Li salt; (C) is a water-insol. unsatd. monomer e.g. styrenesulphonic acid, N-pyrrolidone, (meth)acrylamide, or N,N-diethyl(meth)acrylamide; (D) is an oil soluble and non-hydrolysable multifunctional monomer or prepolymer, e.g. divinyl monomer, polyvinyl monomer, divinyl benzene, 1,2-polybutadiene, 1,4-polybutadiene, diarylmonomethyl amine, or triarylamine.

The salt (B) is used in amt. 50-20 mol.% on total amt. of (A) and (C). The monomer or prepolymer (D) is used in amt. 10,000-1 ppm on total amt. of (A), (B) and (C). (7pp)

MITT ★ D22 66943 D/37 ★J5 6093-741
Anti-algae polyvinyl chloride compsn. - contg. triazine cpds. and used for producing PVC film used in agriculture, covering fish ponds etc.

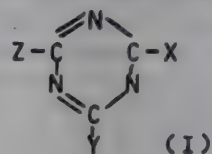
MITSUBISHI MONSANTO KK 27.12.79-JP-171716

A14 C02 E13 P13 P14 (A60) (29.07.81) A01g-13/02 A01k-63 C08k-05/34 C08l-27/06

27.12.79 as 171716 (83AT)

Anti-algae PVC compsn. contains 0.05 to 3.0 pbw triazine cpd. of formula (I) per 100 pbw PVC. (X, Y and Z are halo, amino, alkylamine, dialkylamino, arylamino, halogen-substituted arylamino, or alkylthio).

Used for producing PVC film used in agriculture, fishpond, etc. (I) provides durable protection of PVC film from growth on the surface. In an example, a PVC film contg. 40 pbw DOP and 0.3 pbw triazine cpd. where Z and Y are $-\text{NHC}_2\text{H}_5$ was placed over a fishpond and degree of growth of algae on the film was observed for 6 months. Percentages of alga-covered area to total area after 1 week, 2 weeks, 1 month, 3 months and 6 months were 0, 0, 0, 10 or less and 30 or less, respectively, in comparison with 10 to 30, 30 to 60, more than 60, more than 60 and more than 60 for unprotected film. (4pp)



MITT ★ D22 66944 D/37 ★J5 6093-742
Algicidal PVC compsn. - contg. N-(halo)alkylthio-(tetrahydro)phthalimide

MITSUBISHI MONSANTO KK 27.12.79-JP-171717

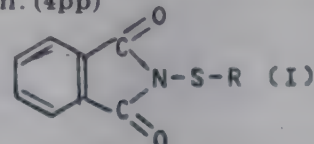
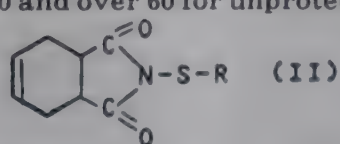
A14 C02 E13 P13 P14 (A60) (29.07.81) A01g-13/02 A01k-63 C08k-05/34 C08l-27/06

27.12.79 as 171717 (83DJ)

Anti-algae PVC compsn. contains 0.05 to 3.0 pts. wt. phthalimide cpd. of formula (I) or tetrahydrophthalimide cpd. of formula (II) per 100 pts. wt. PVC. (R is alkyl or haloalkyl).

Used for producing PVC film used in agriculture, fishponds, etc. (I) or (II) provides durable protection of PVC film from growth of algae on the surface.

In an example, PVC film contg. 40 pts wt. DOP and 0.3 pts. wt. phthalimide cpd. of formula (III) was placed over a fishpond. Percentages of alga-covered area to total area after 1 week, 2 weeks, 1 month, 3 months and 6 months were 0, 0, 0, 10 or less, and 30 or less, respectively, in comparison with 10 to 30, 30 to 60, over 60, over 60 and over 60 for unprotected film. (4pp)



MITR ★ D22 67029 D/37 ★J5 6094-322
Contact lens - made of opt. crosslinked chitin or chitosan deriv.

MITSUBISHI RAYON KK 27.12.79-JP-173010

A96 P81 (30.07.81) G02c-07/04

27.12.79 as 173010 (50HM)

Contact lens consists of chitin, chitosan or derivs. e.g. acetylchitin, hydroxy-ethyl-chitin, hydroxy-propyl-chitosan, hydroxybutyl-chitosan, acetyl-chitosan. These derivs. are opt. crosslinked with formaldehyde, glutaraldehyde, epichlorohydrin, dimethylolurea, etc. to make them water-

insoluble and to raise the strength of the lens. Also crosslinking can be carried out by the application of gamma or UV radiation, etc. The contact lens is moulded by pouring a soln. of the material into a mould of metal, glass, etc. and evaporating off the solvent. The contact lens is optically transparent and has high flexibility, and excellent characteristics as esp. soft contact lens. (2pp)

SAKU- ★ D22 67081 D/37 ★ J5 6095-053
Ethylene oxide sterilisation indicator paper - uses ink contg. diazo pigment, metal e.g. calcium phenolate and ethylene glycol
SAKURA CRAPAS KK 28.12.79-JP-172447
E21 G02 P34 (01.08.81) A611-02/26
28.12.79 as 172447 (42BZ)

An ink (I) composed of a pigment (II) of formula $N = N-B$, metal salt (III) of aromatic acid and liq. organic cpd. (IV) having relative volatility lower than 1 is novel. A is a heterocyclic cpd. gp. selected from pyridine, quinoline, isoquinoline, triazole, tetrazole, indazole and thiadiazole, that contain nitrogen added with no alkyl, and B is an ordinary coupling component.

Examples of B are aminobenzene, dimethyl aminobenzene, phenol, alfa-naphthalol, etc. As (III), lithium, calcium, zinc, etc. salts of bisphenol-A, O- or P-phenyl phenol, P-methoxy phenol etc. are used. (IV) are ethylene glycol monophenyl ether, ethylene glycol, glycerol, dibutyl phthalate, etc.

A paper printed with (I) put with a material to be sterilised with ethylene oxide. The paper changes its colour, after the material and the paper are held in contact with ethylene oxide for a time enough for sterilisation. (5pP)

CIBA D22 38380 F/00 = J8 1035-664
Substd. phenyl acetic acids - anti-inflammatory analgesic, anti-pyretic
CIBA GEIGY AG 20.12.67-CH-017893 (20.12.67-CH-017892)
B05 (19.08.81) *NL6817-965

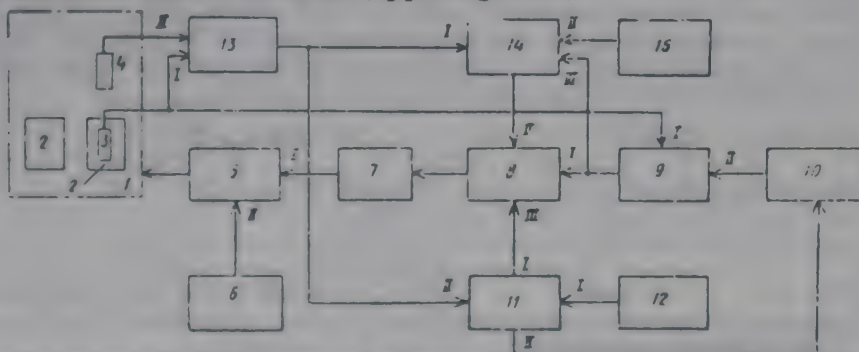
VETE = ★ D22 67270 D/37 ★ SU-789-118
Medical and veterinary bactericidal spray air disinfection - by electro-aerosol generator to electrify air and disinfectant and using electrostatic forces to remove particles rendered harmless
VETERINARY HYGIENE 04.10.78-SU-670940
S05 P34 (23.12.80) A611-09/14
04.10.78 as 670940 (840GW)

Improved disinfection of air by spraying a bactericidal prepn. is used in medicine. Air and disinfectant are subjected in portions to electrification with intensity from 10 power -10 to 10 power -7 A/m3 and electric mobility from 10 power -7 and 10 power -4 m2/V.sec. Then the particles rendered harmless are removed by electrostatic dispersion. The new technique overcomes poor distribution of an aerosol hitherto, for better human and veterinary hygiene. Bul. 47/23.12.80. (4pp)

AUCR = ★ D22 67510 D/37 ★ SU-789-668
Nucleus-contg. bio-cells cryogenic programmed freezing appts. - has reference signal unit setting temp. difference between freezing chamber and bio-material containers for restoration at crystallisation t

AS UKR CRYOBIOL 17.08.78-SU-654786
S05 X27 Q75 (23.12.80) A01n-01/02 F25d-29
17.08.78 as 654786 (840GW)

Appts. is used for programmed freezing of nucleus-contg. cells, mainly of blood and bone marrow. It contains freezing chamber (1), containers (2), heat sensors (3,4), actuator (5), cooling agent supply (6), power amplifier (7), comparator (9) and setter (10). Introduction of the commutator (8), comparator (11), programmer (12), temp. difference unit (13) adder (14) and reference signal unit (15) can maximise the percentage survival of the cells. Bul.47/23.12.80. (4pp Dwg.No.1)



NELS/ D22 06053 D/05 = US 4285-071
Prosthesis cement spacer - comprises pointed stainless steel wire projecting from solid acrylic bone cement cylinder
NELSON CL 02.07.79-US-054027
A96 P32 (25.08.81) *EP--22-308 A61f-01/03
02.07.79 as 054027 (1376RH)

Spacers are used between a prosthesis and a bone to control thickness of cement securing the members. Each spacer has wire and a head, the wire being embedded in the bone. 7 prosthesis abuts the head of each spacer.

Prof. 3 spacers are located between an acetabulum and acetabular cup. Cementing process is improved. (7pp)

LEME/ ★ D22 67692 D/37 ★ US 4285-
Adhesive bandage - comprising soft material centrally and external moulded plastics protector as shock absorber for wound
LEMELSON JH 01.10.79-US-080565
A96 P32 (25.08.81) A61f-13
01.10.79 as 080565 (1358DJ)

A bandage comprises a thin strip with adhesive on the end inside surfaces and soft material in the centre, and a moulded plastic protector more rigid than the strip, with an irregular external surface and forming the protruding outer centre of the bandage. The protector is integrally bonded to the strip outer surface and acts as a cover and shock absorber for the wound.

The protector is pref. of thin rigid injection moulded plastic which may be dome shaped to have an irregular central configuration forming a decoration or image. The protector may have flanges extending from the irregular part and adhered to the strip, and may be filled with resilient shock absorbent material. (4pp)

JOHJ ★ D22 67693 D/37 ★ US 4285-8
Disposable diaper with absorbent batt - sandwiched between two impervious sheets, one with single opening for passage of urine
JOHNSON & JOHNSON 04.06.79-US-045030
P21 (25.08.81) A41b-13/02
04.06.79 as 045030 (295RH)

A disposable diaper includes a first outer layer constituting moisture-impervious backing sheet. An absorbent batt superimposed on the backing sheet, the batt being smaller than the backing sheet, and spaced inwardly from its longitudinal edges.

A second outer layer comprising a liq. barrier is superposed on the batt on the side opposite the backing sheet, the barrier sheet being larger than the batt and coterminous with the backing sheet, its longitudinal margins being secured to those of the backing sheet. The barrier sheet has a single opening in it to contact the perineal region of the wearer. The opening and liq. barrier are covered by a facing layer on the side opposite the batt.

Urine is drawn by the batt away from the opening. However when the batt becomes satd., the liq. is prevented from contacting the infant's skin by the liq. barrier. (9pp)

MCNA/ ★ D22 67694 D/37 ★ US 4285-34
Shape retaining sanitary napkin - with absorbent element and side panels securable to top and underside of undergarment crotch

MCNAIR R M 16.10.79-US-085423
F07 P32 (25.08.81) A61f-13/16
16.10.79 as 085423 (1358RP)

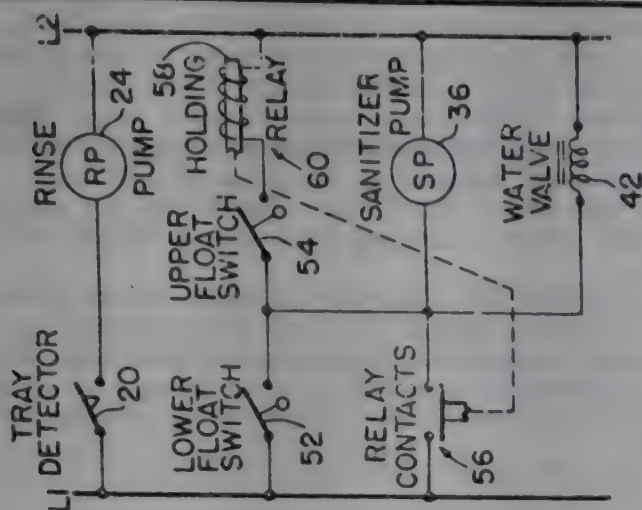
A napkin has an elongate central absorbent element with a side panel extending from each long edge at a flexible junction line and each at least half as wide as the element. There is a fluid impervious backing for element and panels and the element underside has an adhesive strip covered by a removable protective strip for securing to the inner surface of a garment.

Each panel also has an adhesive strip on its underside so that when the element is secured to the garment the panels can be folded under it to engage the outer surface of the garment. The arrangement prevents the napkin from folding or crumpling longitudinally so that it remains flat or slightly concave to conform to the body, preventing staining of the garment. (4pp)

HOBM D22 23865 D/14 = US 4285-352
Dishwashing machine sanitising batch rinse system - with agent and water fed to mixing tank in preset proportion
HOBART CORP 12.09.79-US-074649
X27 P28 + P43 (25.08.81) *EP--25-700 + B08b-03/02
12.09.79 as 074649 (1358WB)

A foodware washing machine includes a chemically sanitising batch rinse system with solution mixing tank, rinse pump and spray head. Sanitising agent and fresh water are delivered to the tank in set proportion and at a rate greater than the pumped offtake in response to tank level falling below a set minimum while delivery is stopped when a maximum level is reached.

The two limit levels are pref. signalled by float-controlled switches, with an actuator connected in series with the switches and moved when both switches are conductive with the solution below the lower level and remaining in position with the low level switch nonconductive and level below the high level switch and then returning when the high level switch becomes nonconductive. (13pp)



HYMA/ D22 86688 C/49 = US 4285-468
Device for dispersing volatile substance into atmosphere - to provide deodorants, insecticides, perfumes, medicaments etc.

HYMAN S 10.05.79-US-037688 (03.06.77-US-803369)
A97 B07 C03 P14 P34 (25.08.81) *EP--19-010 A611-09/04
10.05.79 as 037688 C.i.p 4161283 (977JB)

Article for the dispersion of a volatile substance to the surrounding atmos. comprises liq. impervious, gas-permeable polymeric layer which is bonded so as to form a reservoir. The solid comprises particulates comprising a polymeric matrix comprising a volatilisable substance in the matrix and disposed in the reservoir.

The matrix provides a controlled release of the volatilisable substance and is selected from a varied concn. of the substance in the particulates and varied sized particulates. There is a removable barrier, adhesively attached to and covering the outer surface of the polymeric layer.

The volatilisable substance disperses from the particulates through the polymeric layer to the outer surface of the polymeric layer so that with the removal of the barrier layer, the substance volatilises from the exposed surface of the surrounding atmos.

The volatilisable substance is e.g. deodorant, insecticide or repellent. There is a linear rate of vapour to the surrounding atmos. (9pp)

JOHJ ★ D22 67773 D/37 ★ US 4285-747
Mfg. disposable diapers with elasticated waistband - by attaching elastic strip ends with stock centre raised and centre with stock flat

JOHNSON & JOHNSON 07.04.80-US-137938 (18.10.79-US-086219)
A35 P32 P73 (A96) (25.08.81) A61f-13/16 B32b-31/10
07.04.80 as 137938 Div.ex.4240866 (1358)

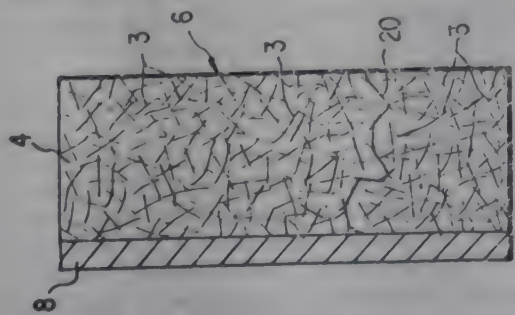
Diapers are made by moving stock with spaced absorbent pads between pervious and impervious webs secured together along the edges in its own plane, moving the centre only out of the plane and continuously feeding individual unstretched elastic members into spaces between pads with member ends adjacent the shock edges and the centre spanning the raised part of the stock.

The member ends are adhered to the stock, then the stock is returned to its original plane to stretch the members which are adhered to the stock centre, and the stock is severed transversely to form individual diapers. The members pref. carry pressure-sensitive adhesive on one surface. (6pp)

RESE ★ D22 67798 D/37 ★ US 4285-796
Electrolysis electrode for disinfecting aq. soln. - has conductive current collector and working surface contg. conductive islands in non-conducting matrix

RESEARCH CORP 21.08.78-US-935155
J03 X25 (D15) (25.08.81) C25b-11/02
21.08.78 as 935155 (67DJ)

Electrode capable of simultaneously effecting enzymatic and electrolytic reactions comprises an electrically conductive current collector and a working surface contg. a multiplicity of conductive islands disposed in a non-conducting matrix, the majority of the islands being in electrically conductive contact with the current collector. The ave. size of the islands ranges



from 3-30 micro m and the ave. spacing between the islands ranges from 3-50 micro m. An enzyme is fixed to the non-conducting matrix of the working surface.

The electrode has low power requirements and enhances the diffusion of reactants to the electrode surface. Used for disinfecting aq. solns. in an electrochemical cell. Then an a.c. impressed across the electrodes microorganisms in the soln. are inactivated. (8pp Dwg.No.2)

FEIT/ ★ D22 67839 D/37 ★ US 4285-9
Solid article for dispersing volatile cpd. - formed by moulding mixt. of emulsion and calcium sulphate plasters

FEIT R 10.10.80-US-195823
E33 P34 (25.08.81) A611-09/*
10.10.80 as 195823 (367AT)

New solid unitary articles for dispersing a volatile cpd. (I) into the surrounding environment are produced by (a) combining (I) with an emulsifier and mixing to form an emulsion, (b) mixing the emulsion with water, (c) adding particulate hydrous CaSO₄ (I) having a loose bulk density (LBD) of 0.75-0.85 g/cc, (d) adding particulate CaSO₄ (III) having a LBD of 0.85-0.95 g/cc and particulate CaSO₄ (IV) having a LBD of 0.70-0.75 g/cc, (e) agitating the mixt. to form a smooth slurry, and (f) placing the slurry in a mould and allowing it to set.

The various materials are used in amts. such that the article contains 6-7 wt.% (I), 0.5-1 wt.% emulsifier, 30-35 wt.% water, 2-25 wt.% (II), 25-30 wt.% (III) and 25-30 wt.% (IV).

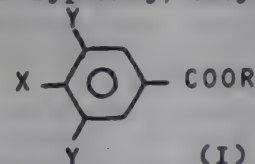
The articles are esp. useful for (de)odorising air by releasing perfume over a long period (e.g. 45-90 days). (10pp)

CIBA D22 15066 C/09 = US 4285-97
3,4,5-Trihalo-phenol ester(s) - antimicrobials to protect material against attack by bacteria, algae, fungi, and from rotting and mould

CIBA GEIGY CORP 08.08.78-CH-008473
C03 E14 F06 P63 (F09) (25.08.81) *EP--8-061 C07c-69/70 + A01n-37/02
30.07.79 as 062192 (945JB)

Halogenated phenol esters of formula (I) are new. In the formula (1) X is Cl or F, and Y is Br or Cl; R is H, 1-22C alkyl, 2-22C alkenyl, benzyl opt. substd. by Cl or Br or phenyl opt. substd. by 1-4C alkyl, 1-4C alkoxy, carboxy, Cl or Br gp(s).

The cpds. are antimicrobials used for antimildew, rotproof finishing of textiles, protecting wood from rot, and preventing slime in paper mfr. They are also used as disinfecting agents and in protection of leather, etc. Typically, they are applied to substrates at 0.1-10 g/m². (9pp)



STRO/ ★ D22 67886 D/37 ★ US 4286-002
Disposable urine collection pad for bedridden patient - has slit quilted cloth cover over shredded paper layer with impermeable backing

STRONG SY 29.11.79-US-098474
P73 (25.08.81) B32b-29
29.11.79 as 098474 (1358AT)

Pad has a liq. impermeable layer under an absorbent layer of shredded paper, and a liq. permeable top layer encasing the paper and secured peripherally to the bottom layer. A soft resilient cover is secured to the top layer by an overlapping flange which binds together the peripheries of cover and top and bottom layers.

The cover is of quilted cloth to provide comfortable direct contact with the patient's skin, and has spaced slits to permit passage of liq. The pad is inexpensive and the whole pad is disposable after use. (3pp)

JAPC ★ D22 67921 D/37 ★ US 4286-082
Crosslinked absorbent acrylic resin compsn. prepn. - in hydrous gel form, dried, opt. pulverised and blended with ultra-microscopic silica and used in sanitary napkins

NIPPON SHOKUBAI KAGAKU 27.12.79-JP-169368 (06.04.79-JP-041125)
A14 + P21 P34 (A96) (25.08.81) A41b-13/02 A611-15 B01j-20/26 C08f-02/18 C08f-220/04
07.04.80 as 137640 (966HM)

Prepn. of an absorbent resin compsn. comprises (a) copolymerising in aq. soln. a mixt. of 100 pbw of an acrylate salt monomer composed of 0-50 (10-40) mol % of acrylic acid and 50-100 (60-90) mol % of an alkali metal acrylate and 0.001-5 pbw of a crosslinkable monomer having 2-4 CH₂=CHCO-, CH₂=C(CH₃)CO- and/or CH₂=CHCH₂- gps. in the presence of water soluble surfactants and/or water dispersible surfactants

and water soluble radical polymerisation initiator while maintaining the initial concn. of the mixt. at 25 wt.% to saturation; (b) drying the resulting gel-like hydrous polymer under heat; opt. (c) pulverising; and opt. (d) blending the resin powder with 0.01-10 pbw (per 100 pbw powder) of ultramicroscopic silica having specific surface area, measured by the Brunauer-Emmett-Teller method, of at least 50 sq.m/g and particle dia. of not over 0.05 micron.

The compsn. absorbs aq. fluids to a high degree and maintains great fluid retention under pressure. It causes little redn. in fluidity and little caking by absorbing moisture and is used as absorbents in sanitary napkins and paper diapers. (10pp)

UYDE-★ D22 67922 D/37 ★US 4286-087
Friable, dispersible microcrystalline chitin powder prepn. - by hydrolysing dispersion of chitin in phosphoric acid-alcohol mixt. shearing, drying and grinding
UNIV OF DELAWARE 21.09.79-US-077831
A11 (A96) (25.08.81) C08b-37/08
21.09.79 as 077831 (966HM)

Dispersible chitin powder is made by (a) dispersing particulate chitin in a mixt. of phosphoric acid and a lower aliphatic alcohol; (b) heating to hydrolyse the chitin to the desired mol.wt.; removing the hydrolysed chitin from the dispersion; redispersing the hydrolysed chitin in water by mixing with 5 wt.% water and subjecting to high speed shear forces; removing the water from the dispersion by drying; and grinding the dried, sheared hydrolysed chitin to the desired particle size.

Friable, dispersible, microcrystalline, chitin powder is obtained. Substantial improvements in both acceleration and quality wound healing is shown by applying aq. dispersions of the powder to severe abrasions, cuts and cracks caused by chapping. The powder may also be used as a supplement to lactose rich chicken diets. (4pp)

See Also

D21 DE3006659

D21 FR2474865

D23: OILS; FATS; WAXES

SCHM/★ D23 66150 D/37 ★DD-148-924
Fat-contg. sec. raw material processing - comprises sepg. two-thirds fat from deposition vessel before sepn. in decantation centrifuge

SCHMIDT E 04.02.80-DD-218831
(D15) (17.06.81) B01d-17/02 C02c-01/38 C11b-13
04.02.80 as 218831 (200HM)

In processing fat-contg. sec. raw materials, esp. fat sediments contg. 40-80% fat, 2/3 of the total fat in the raw material is drawn out of the fat-deposition vessel for further purificn. in separator, while the fat-reduced residue is further sepd. in a decantation centrifuge.

The main prod. contains over 98% fat. The viscosity of the fat-depleted raw material charged to decantation centrifuge is reduced. Centrifuge sepn. activity and throughput are increased. (7pp)

FIRM★ D23 66429 D/37 ★FR 2474-861
Seven pyridine cpds. used as perfume ingredients - including novel 2-isopropyl 5-acetyl pyridine
FIRMENICH SA 06.02.80-CH-000934
E13 (07.08.81) A61k-07/46 C07d-213
05.02.81 as 002245 (597BZ)

Any of the following pyridine cpds. is used as a perfume ingredient in perfume prepn. and perfumed prods. (a) 2-isopropenyl pyridine; (b) 3-isopropenyl pyridine; (c) 2-isopropyl-5-methyl pyridine; (d) 2-methyl-5-isopropenyl pyridine; (e) 2-isopropyl-5-acetyl pyridine; (f) 2-methyl-5-acetyl-pyridine and (g) 2-methyl-5-isopropyl pyridine. Cpd. (e) is novel and is pref.

The cpds. are particularly used in the reconstitution of certain essential oils e.g. artemisia oil. previously pyridine cpds. have found practically no use in perfumery. However, the above are distinguished by the absence of typical pyridine character in the odour spectrum. (7pp)

HASE★ D23 66783 D/37 ★J5 6092-247
3-Methyl-3-buten-1-ol ester derivs. - useful as long acting fragrant agents or modulators for foods, drinks, detergents etc.
HASEGAWA KK 27.12.79-JP-169444
E17 (25.07.81) A231-01/22 A61k-07/46 C07c-69
27.12.79 as 169444 (52RP)

3-Methyl-3-buten-1-ol esters of formula $\text{CH}_2\text{C}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{OCOR}$ (I) (where R is 2-10C alkyl (e.g. Et, Pr, i-Pr, n-Bu, t-Bu, s-Bu, n-pentyl, i-pentyl, t-pentyl, neopentyl, hexyl, heptyl, octyl, nonyl, decyl), 2-10C alkenyl (e.g. vinyl, 1-propenyl, 1-propenyl, allyl, 1-butenyl, 2-butenyl, 3-butenyl, 1-methylpropenyl, 2-methyl-1-propenyl, 1-pentenyl, 3-pentenyl, hexenyl, octenyl, nonenyl, decenyl) or aryl (e.g. phenyl)). Representative of (I) are (a) 3-methyl-3-butenyl acetate bp. 46-49 deg.C/20 mmHg; (b) valerate, bp. 65-68 deg.C/5 mmHg; (c) octanoate, bp. 134-138 deg.C/8 mmHg; (d) decanoate, bp. 150-154 deg.C/3 mmHg; (e) acrylate, bp. 37-40 deg.C/1.5 mmHg; (f) 2-hexonoate, bp. 139-142 deg.C/9 mmHg; (g) undecylenate, bp. 160-164 deg.C/2 mmHg; (h) benzoate, bp. 100-102 deg.C/4 mmHg; (i) salicylate, bp. 115-120 deg.C/5 mmHg.

(I) are prepd. from 3-methyl-3-buten-1-ol(2) on reaction with $(\text{RCO})_n\text{X}$ (3) or R-COOR (4) in presence or absence of a catalyst (where X is -OH, halogen or oxygen; when X is OH or halogen atom, n is 1, and when X is oxygen atom, n is 2; R2 is 1-6C alkyl). (3) includes free acid, acid anhydride, and acid halide. (1) are useful as long acting fragrances or modulators and may

be added to foods or drinks, soaps or detergents, sanitary or health care aids, drugs and cosmetics. (9pp)

DUSK-★ D23 67082 D/37 ★J5 6095-05
Perfume-liberating compsn. - contg. mixt. of isoparaffin hydrocarbon cpds.

DUSKIN FRANCHISE KK 18.12.79-JP-163533
P34 (01.08.81) A611-09/*
18.12.79 as 163533 (42AS)

Compsn. (I) contg. perfume(II) and a mixt. of isoparaffin hydrocarbon(III) of b.pt. 150-300 deg.C is new. The wt. ratio (II)/(III) is 5/95-50/50. (I) constantly liberates (II) for a long period, during which (II) in (I) causes no deodorization. (I) is stable and does not freeze in winter. Pref. (II) include lemon oil, orange oil, cassia oil, cedar oil, vanillin, methyl salicylate, rose oil, etc. Pref. (III) include IP-1016, IP-1620 and IP-2028 (RTM's). (4pp)

MAED-★ D23 67083 D/37 ★J5 6095-05
PVA-based pasty perfuming compsn. - for application to floor and walls
MAEDA SHELL SERV KK 28.12.79-JP-171946
A96 P34 (01.08.81) A611-09/*
28.12.79 as 171946 (42AS)

(I) is a pasty compsn. used as an agent for masking bad malodours in toilets, bathrooms, etc. with a moderate generation of perfume. Since the PVA is water-soluble, (I) is easily spread in water. When floors and walls are wiped with a cloth wetted with a diluted soln. of (I), the perfume generated masks the malodours.

Pref. (I) is diluted with water to a concn. of 1-0.2%. Pref. (II) is orange oil mixed with D-limonene and cumarine. (2pp)

NISS★ D23 67097 D/37 ★J5 6095-124
Purifying isoprene derivs. - by adsorbing on column of non-polar synthetic resin and eluting with polar solvent
NISSHIN FLOUR MILL KK 00.00.80-JP-175883 (20.10.75-JP-125370)

A91 B05 E19 (01.08.81) C07b-29 C07c-29/76 C07c-46/10 C07c-175 C07d-311/04
20.10.75 as 175883 /80 Div.ex 125370 (33AS)

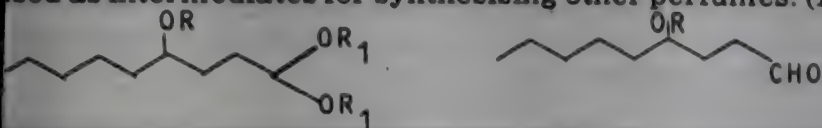
Cpds. (I) with a straight isoprene unit are purified by adsorbing (I) on a column of a non-polar porous synthetic resin and eluting (I) with polar solvent. Cpds. having a straight isoprene unit such as vitamin K, vitamin K2, alpha-tocopherol, coenzyme Q, isoprenyl alcohol or carotenoid are useful as pharmaceuticals, perfumes, pigments or starting materials for industrial chemicals. (I) are not stable and contain impurities of similar cpds. Process can purify such isoprene cpds. (I) effectively. (6pp)

HASE★ D23 67105 D/37 ★J5 6095-141
4-Substd. nonanal acetal cpds. prepn. - by contacting 4-substd. nonanal with an alcohol in presence of acid
HASEGAWA KK 28.12.79-JP-170295
E17 (E14) (01.08.81) A231-01/23 A61k-07/46 C07c-41/50 C07c-43/31 C07d-319/06
28.12.79 as 170295 (75WB)

Acetals of 4-substd. nonanal of formula (I) (where R is alkyl or aralkyl, each R1 is independently lower alkyl or the two R1's together are lower alkylene) are novel. Prepn. of acetals of 4-substd. nonanal of formula (I), comprises contacting 4-substd. nonanal of formula (II); (where R is alkyl or aralkyl) with alcohol

Formula (III) R¹'OH (where R¹' is lower alkyl or hydroxyalkyl) in the presence of acid.

The prods. are useful in perfumery as fruit-type or green-type perfume or flavour moderating agents. The cpds. can be used as intermediates for synthesising other perfumes. (12pp)



SE ★ D23 67107 D/37 ★ J5 6095-143
Substd. nonanal derivs. for perfumes etc. - prepd. by contacting substd.-1-decene cpd. with ozone followed by hydrogen-agent in presence of reducing

HASEGAWA KK 28.12.79-JP-170294

E17 (E14) (01.08.81) A231-01/23 A61k-07/46 C07c-45/40 C07c-47/19

12.79 as 170294 (75RP)

Substd. nonanals of formula (I) are new. In (I), R is alkyl or alkyl gp. Prepn. of (I) is effected by contacting 5-substd.-1-decene of formula (II) with ozone, followed by subjecting the resultant to hydrogenolysis in the presence of a reducing agent. They have fresh green note or sweet and fresh green note, and are useful in perfumes, and as intermediates for synthesising other perfuming agents. (9pp)



ENL ★ D23 67352 D/37 ★ SU -789-481
Low cost betulin prodn. - by extracting deciduous pulp sulphated with organic solvent and treating prod. with alcohol

LENINGRAD FORESTRY ACAD 18.04.78-SU-652928

E15 (23.12.80) C07c-35/22

18.04.78 as 652928 (938GW)

Betulin prodn. includes extrn. of deciduous pulp sulphated oil prod. during sulphate cooking of wood pulp in cellulose and paper (fig. ind.) with organic solvent and subsequent sepn. of the final prod. by crystallisation. The process is simplified and the cost of the final prod. is reduced by conducting extrn. of betulin-contg. raw material at 35-60 deg.C with benzene, or petroleum ether, or hexane.

Prep. sulphated oil: extracting agent weight ratio is 1:(3-8). The resulting emulsified prod. can be demulsified by addn. of 1-3C alkyl alcohol using sulphated oil:alcohol wt. ratio of 1:(0.1-0.3). Bul. 47/23.12.80. (3pp)

ALU = ★ D23 67356 D/37 ★ SU -789-485
Eugenol isomers sepn. from mixts. by multistage vacuum rectification - provides increased yield by initial azeotropic vacuum-rectification with ethylene-glycol for prodn. of ortho-eugenol enriched fraction

KALUGA PERFUMES RES 10.05.78-SU-613546

B05 E14 (25.12.80) C07c-41/58 C07c-43/20

10.05.78 as 613546 (114GW)

Sepn. of eugenol isomers (used in perfumery and drug industry) from mixt. contg. guaiacol, 2-methoxy-3-allylphenol, o-eugenol, eugenol and chavibetal by multistage vacuum-rectification increases yield of prods. by initial azeotropic vacuum-rectification with ethyleneglycol and washing the first fraction (enriched with o-eugenol) before vacuum-rectification. The proposed method allows almost complete removal of o-eugenol from isomeric mixt. (5pp)

AECH = ★ D23 67362 D/37 ★ SU -789-492
Terpene and sesqui-terpene aldehyde cpds. purificn. - by fractionation in presence of triethanol ammonium carboxylate used as fragrant agents and intermediates

ASESTCHEM INST 19.06.78-SU-657204

B05 E15 (23.12.80) C07c-45/86 C07c-47/21

19.06.78 as 657204 (938GW)

Terpene or sesqui-terpene aldehydes are used as intermediates in fine organic synthesis or as fragrant agents. These cpds. are purified by fractional distillation in the presence of organic acid quaternary ammonium salts.

The final prod. purity is increased by conducting the fractionation in the presence of 0.5-5 wt.% of 1-20C carboxylic acid triethanol-ammonium salts, e.g. triethanol-ammonium myristate. The addn. of quaternary ammonium salts prevents formation of isomeric by-prods., which reduce the quality of the above fragrant agents. Bul. 47/23.12.80. (2pp)

ORTH ★ D23 67813 D/37 ★ US 4285-832
Residual vegetable oil recovery from spent bleaching clay - by forming particles with organic binder and plastic clay, then solvent extrn.

ORTHO PHARM CORP 11.08.80-US-176990

(25.08.81) B01j-20/30 C11b-13/04

11.08.80 as 176990 (955RH)

Residual vegetable oil is recovered from spent bleaching clay by mixing the clay with an organic binder, water and a plastic clay, forming the mixt. into shaped particles, and extracting the oil with a suitable solvent.

The particles remain intact and do not release clay fines which are impossible to filter from the extract. The particles after oil removal can be heated to yield a carbon clay mixt. useful as an adsorbent, filter aid or for water treatment or oil purificn.

Suitable binders are starches, gums, cellulose derivs. or alginates. The plastic clay is e.g. attapulugus clay or spent clays from tin mining. The compsn. pref. contains 0.2-5 wt.% organic binder, 5-20 wt.% plastic clay, 10-25 wt.% water and the balance spent bleaching clay. (4pp)

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

BATT D25 44432 B/24 = EP G009-480
Automatic washing machines - with integral electrolytic peroxide generators, for efficient bleaching action without subsequent pollution problems

BATTELLE MEMORIAL 06.12.77-CH-014876

E36 F06 J03 (02.09.81) *EP---2-423 C25b-01/30 + C02f-01/72

D061-03/02 D21c-09/16

04.12.78 as 900292 Based on WP79034728 (922BZ) (F) US3616442 US3969201 E(CH DE FR GB SE)

An aqs. treating soln. (I) containing hydrogen peroxide and hydroxyl ions in predetermined concentrations is produced using an electrolytic cell, comprising an anode in contact with an analyte and a porous cathode in contact with a catholyte having a pH lower than that in (I), in which the catholyte is circulated with an oxygen-containing pressurised gas during electrolysis in such a manner that each fraction of the liquid being displaced is

progressively loaded with hydroxide and hydroperoxide to 0.1-10 g/l while keeping the pH below 14. (I) is an in situ-produced bleaching soln. for textiles or paper and is more environmentally acceptable (than, e.g. storage of pre-produced peroxides). (18pp)

CONO ★ D25 66282 D/37 ★ EP --34-649
Alkoxylation of cresylic acid using barium or strontium catalyst - and opt. promoter, giving sharp distribution of adducts useful as detergents, cleaning agents etc.

CONOCO INC 14.02.80-US-121351

E14 (02.09.81) C07c-41/03

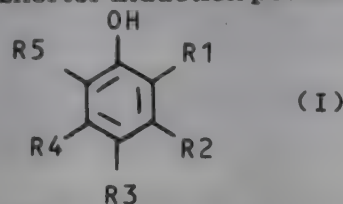
15.10.80 as 106280 (1281) (E) No-citns. E(BE DE FR GB SE)

Alkoxylation of 6-36C cresylic acids of formula (I), or their mixts. is carried out in presence of basic Ba or Sr contg. materials as catalysts. (R1-R5 are each H, opt. branched acyclic, alicyclic,

cyclic or opt. subst. aryl gps., halo, hydroxy, nitro, ether or carbonyl, themselves opt. subst. by one or more halo, ether, nitro, carboxy, carbonyl, amine, amide or halo).

Pref. one or more promoters (II) are also present e.g. 2-30C polyols, aldehydes, or ketones; 1-30C amides, amines or carboxylic acids, or 6-30C phenols, all having b.pt. over 100 deg.C. Reaction of (I) is pref. with ethylene and/or propylene oxides and specified catalysts are Ba or Sr metals or their hydrides, (hydrated) hydroxides or oxides.

The prods. are used e.g. as detergents, cleaning agents, builders, polishers, sanitisers, dry cleaning agent, in the pulp and paper industry to reduce resin content, as printing ink additives, and as dispersants for fungicides etc. These catalysts provide a narrow distribution of adducts, reduced by-prod. and unreacted (I) contents, and a shorter induction period. (28pp)



CONO ★ D25 66283 D/37 ★EP--34-650
Alkoxylation of alcohol using promoted barium contg. catalyst - giving narrow distribution of adducts useful as detergents, builders, etc.

CONOCO INC 13.02.80-US-121072
E17 (02.09.81) B01j-23/02 B01j-31 C07c-41/03
16.10.80 as 106316 (1251AS) (E) EP--6105 EP--20867 EP--18463
E(BE DE FR GB SE)

Alkoxylation of 2-36 (4-20)C alkanols (I) is carried out using a basic Ba-contg. catalyst (II) plus a promoter (III), at 120-260 deg.C. (III) are 2-30C polyols, aldehydes or ketones; 1-30C amides, amines or organic acids, or 6-30C phenols, all with b.pt. over 100 deg.C. Some alcohols (IIa) with pKa less than 17 can also serve as promoters.

Pref. (II) is Ba metal, its hydride, oxide or (hydrated) hydroxide, and reaction is pref. with ethylene and/or propylene oxides, esp. at not over 100 psig, to form a prod. of 30-80 wt.% ethylene oxide content.

Alkoxylation prods. are useful as detergents, cleaning agents, builders, polishers, sanitisers, dry cleaning materials and also in the pulp and paper and fibre industries. These catalyst systems give a narrow adduct distribution; low contents of unreacted (I) and by-prods., and a reduced induction period. (29pp)

DEGS ★ D25 66301 D/37 ★EP--34-693
Crystalline zeolite A powder having defined particle size prepn. - by stirring sodium aluminate liquor and water glass soln. into water

DEGUSSA AG 26.02.80-DE-007087
E33 (02.09.81) C01b-33/28
13.01.81 as 100172 (200HM) (G) DE2734296 DE2704310 DE2651485 2.Jnl.Ref E(AT BE CH DE FR GB IT LI NL SE)
In the prepn. of a crystalline zeolite type A powder having ave. particle dia. 4.5-8.5 mu, (a) 2-8 pts. vol. Na aluminate liquor, (I), contg. 50-200 g/l Al₂O₃ and 30-150 g/l Na₂O, and 0.6-3.5 pts. vol. water glass soln. (II), contg. 90-120 g/l Na₂O and 330-380 g/l SiO₂, are stirred simultaneously into 8-10 pts. vol. water, in 5-15 min. at 30-70 deg.C. Stirring is continued for another 15-35 min., (b) 8-26 pts. vol. of the same Na aluminate liquor (I) are then stirred in for 3-150 min. at 30-70 deg.C, (c) 1.1-2.6 pts. vol. of the same water glass soln., (II) are stirred in, simultaneously or subsequently in 3-60 min., at 30-70 deg.C. (d) the total reaction mixt. is after-stirred 20-180 min. at 75-110 deg.C and cooled. The crystalline reaction prod. is filtered and dried.

The zeolite type A powder is used as a phosphate builder substitute in detergents. The powder has a narrow particle size distribution. Max. grit content is 0.2%. Ca bonding capacity is at least 140 mg CaO/g zeolite. (7pp)

DEGS ★ D25 66302 D/37 ★EP--34-694
Crystalline zeolite A powder having defined particle size prepn. - comprises adding sodium aluminate liquor and water glass soln. to sodium aluminate liquor

DEGUSSA AG 26.02.80-DE-007044
E33 (02.09.81) C01b-33/28
13.01.81 as 100173 (200HM) (G) DE2651436 DE2651420 DE2734296 DE2704310 DE2651485 2.Jnl.Ref E(AT BE CH DE FR GB IT LI NL SE)
In the prepn. of a crystalline zeolite type A powder having ave. particles dia. 8.5-9 mu, (a) 0.5-2.5 pts. vol. Na aluminate liquor, (I) contg. 20-120 g/l Na₂O and 5-50 g/l Al₂O₃, opt. diluted with the same vol. of water, and 0.1-0.6 pts. vol. water glass soln. (II) contg. 90-120 g/l Na₂O and 330-380 g/l SiO₂, opt. diluted with water to 3 pts. vol., are stirred simultaneously, in 8-15 min. at 30-70 deg.C, into 8-12 pts. vol. Na aluminate liquor (III) contg. 50-200 g/l

Na₂O and 30-150 g/l Al₂O₃. The mixt. is stirred for another min. (b) Further 15-20 pts. vol. of the same Na aluminate liquor and subsequently further 3-3.5 pts. vol. of the same water soln. (II) are added in 8-15 min. (c) The reaction mixt. is further stirred for 20-180 min. at 75-100 deg.C and cooled crystalline reaction prod. is filtered and dried.

The zeolite A powder is used as a phosphate builder substitute in detergents. (8pp)

DEGS ★ D25 66303 D/37 ★EP--34-695
Crystalline zeolite powder having given particle size prepn. comprises adding sodium aluminate liquor and water glass to water

DEGUSSA AG 26.02.80-DE-007123
E33 (02.09.81) C01b-33/28
13.01.81 as 100174 (200AT) (G) DE2651437 DE2734296 DE2704310 DE2651485 2.Jnl.Ref E(AT BE CH DE FR GB IT LI NL SE)
In the prepn. of crystalline zeolite A type powder having particle dia. 7-8.5 mu, (a) 1.5-2.5 pts. vol. Na aluminate liquor (I) contg. 200 g/l Na₂O and 30-150 g/l Al₂O₃ and 0.6-2.5 pts. vol. water glass soln. (II) contg. 90-120 g/l Na₂O and 330-380 g/l SiO₂, opt. diluted with 2.3-2.4 the vol. of water, are stirred, simultaneously in 5-15 min at 30-70 deg.C into 8-12 pts. vol. water. (b) The reaction mixt. is stirred 15-45 min at 30-70 deg.C Further 15-20 pts. vol. Na aluminate liquor, of the same concn. as (I) are stirred in for 3-150 min. at 30-70 deg.C, and opt. stirred for another 25-30 min. Further 1-3.5 pts. vol. water glass soln. of the same concn. as (II) are then stirred in during 15-30 min., at 30-70 deg.C. (d) The reaction mixt. is opt. stirred 20-180 min. at 70-100 deg.C and cooled. The crystalline reaction prod. is filtered, washed with water to pH below 10.5 and then dried. The filtrate and the water are opt. worked up to form the Na aluminate liquor, recycled to process.

The zeolite powder is used as phosphate builder substitute in detergents. Grit content is low e.g. 0.092-0.114 wt.%. Ca bonding capacity, in examples, is 1.63-166 mg CaO/g zeolite. (9pp)

DEGS ★ D25 66304 D/37 ★EP--34-696
Crystalline zeolite powder having defined particle size prepn. comprises adding water glass soln. and sodium aluminate liquor to water

DEGUSSA AG 26.02.80-DE-007080
E33 (02.09.81) C01b-33/28
13.01.81 as 100175 (200AT) (G) DE2651437 DE2734296 DE2704310 DE2651485 2.Jnl.Ref E(AT BE CH DE FR GB IT LI NL SE)
In the prepn. of crystalline zeolite type A powder, having a particle dia. 6.7-8 mu, (a) 2-8 pts. vol. Na aluminate liquor, (I) contg. 50-200 g/l Na₂O and 30-100 g/l Al₂O₃, and 0.6-1.2 pts. vol. water glass soln. (II) contg. 90-120 g/l Na₂O and 330-380 g/l SiO₂, opt. diluted with 1-1.5 pts. vol. water, are stirred simultaneously into 8-12 pts. vol. water, in 5-15 min at 30-70 deg.C. The mixt. is stirred 10-40 min. (b) Further 2-3 vol. water glass soln. having the same concn. as (II) are stirred in for 5-15 min. at 30-70 deg.C. (c) The mixt. is then stirred 10-40 min. at 30-70 deg.C. (d) Further 16 pts. vol. Na aluminate liquor, having the same concn. as (I) are stirred in for 5-15 min. at 30-70 deg.C. (e) The reaction mixt. is then stirred 20-180 min. at 75-100 deg.C and cooled. The crystalline prod. is filtered and dried.

The zeolite powder is used as phosphate binder substitute in detergents. (9pp)

VIGN/ ★ D25 66456 D/37 ★FR 2475-0
Cleaning prod. contg. corn sweepings, amine surfactant and solvent - for absorbing liquids, esp. fats, from surfaces

VIGNOLLES J 31.01.80-FR-002326
A97 (07.08.81) C11d-01/42 C11d-03/38
31.01.80 as 002326 (597BZ)
The prod. contains (a) a base substance formed by corn sweepings in granular form; (b) an amine surfactant incorporated as a liq. in (a) at 8-15% by vol.; (c) a solvent mixture with (b) in amt. 85-92% by volume of (a); (d) opt. other additives such as fungicides, bactericides, perfume etc. in amt. about 1% (a).

For (b) the surfactant pref. contains a chain of animal origin with addn. of an emulsifier. Pref. is alkylamino propylene condensed with ethylene oxide, esp. M.W. 665 and alkalinity 8.3.1 and density 0.94. For (c) an aromatic hydrocarbon is pref. in an aq. solvent, or a combination of acids forming a passivating acid with (b). The pref. amt. of (b) is 85% and (d) at 1% is pref. perfumed vegetable oil. A further pref. ingredient is corn granules. The prod. may also be used to absorb oils on the surface of a liq. The corn sweepings are ground to size according to the application required.

The prod. is effective, easy to use and of low cost. Also it is biodegradable, not subject of fermentation, is non-dusty, does not scratch the surface, does not stick to shoes and does not scratch the surface. (6pp)

WE/★ D25 66476 D/37 ★GB 1597-357
 bric softener compsns. - contg. 1-ethyl-1-alkanamido-2-alkyl-imidazolinium etho:sulphate cpds.
JOWETT P 18.10.76-GB-043075
E17 F06 (E13) (09.09.81) D06m-13/46
 01.78 as ----- (367DJ)
 bric softening or fibre-conditioning compsns. comprises (a) cerol and (b) 1-ethyl-1-(tallow amidoethyl)-2-(tallow) imidazolinium ethosulphate (I) and/or 1-ethyl-1-(castor amidoethyl)-2-(castor)imidazolinium ethosulphate (II).
 The (I)-contg. compsns. are pref. prepd. by condensing 1 mole tallow triglycerides with 1.5 moles diethylenetriamine (III) and, without separating the by-produced glycerol, cyclising the product and quaternising with diethyl sulphate. Alternatively, 2 moles tallow fatty acids or esters can be condensed with 1 mole (I), followed by cyclisation, quaternisation and addn. of glycerol. The (II)-contg. compsns. can be prepd. similarly from castor oil. The compsns. contg. (I) and (II) can be prepd. by simultaneous or separate prepn. of (I) and (II); in these compsns., (I) can be replaced by 1-ethyl-1-aminoethyl-2-(castor)imidazolinium ethosulphate.
 (I) and (II) are less hazardous to prepare than the corresp. ethosulphates (use of dimethyl sulphate is avoided) and give aq. dispersions with a higher viscosity. (7pp)

ALI-★ D25 66574 D/37 ★GB 2070-657
 fabric conditioner article - comprising foam impregnated with ethoxylated fatty acid
CALIGEN FOAM LTD(SAXB-) 04.03.81-GB-006768 (04.03.80-GB-007228)
A97 E17 (09.09.81) D06l-01 D06m-13/20
 03.81 as 006768 (367BZ)

abric conditioning prods. comprise an ethoxylated fatty acid (I) dispersed throughout the cross section of an open-celled foam substrate. The substrate is pref. a polyurethane (esp. polyester-urethane) foam with a thickness of 1.5-2.0 mm. (I) is pref. an ethoxylated 13-20 C satd. fatty acid (esp. stearic) with a molecular wt. of 1,000-2,000 and a m.pt. of 37-53 deg.C. The prod. are pref. produced by impregnating the foam with 2-5 times its wt. of (I) and then cooling.
 The prods. release (I) at a controlled uniform rate when exposed to heat in a dryer, thus reducing the risk of fabric staining. (4pp)

ENG ★ D25 66705 D/37 ★J5 6092-113
 fine powder zeolite prodn. - by mixing alkali-soluble silica, aluminium cpd. and sodium hydroxide, adjusting concn. of slurry and excess alkali ratio and powdering gel
CENTRAL GLASS KK 25.12.79-JP-167661
E33 (25.07.81) C01b-33/28
 5.12.79 as 167661 (42HM)

alkali-soluble silica (I), Al cpd. (II) and NaOH (III) are mixed with adjustment of the conc. (IV) of the prepd. slurry to 23-30% and excess alkali ratio (V) to 1.5-2.5, and the formed gel is shattered into small particles. Thus, fine powder of zeolite (VI) is produced.
 (IV) and (V) are defined as conc. of slurry is mol of SiO₂/2 x 347 100/total solid wt.; and excess alkali ratio is (Na₂O-mol/2SiO₂-mol)-1. (I) is Na silicate, silica gel, silica sol, silicic acid, est. (II) is aluminate, activated alumina, gamma-alumina, Al hydroxide etc.

Fine-powdery (VI) of particle size smaller than 1 micron is produced. The prod. (VI), is used as a builder to be mixed in detergents.

In an example, Na aluminate 109g, Na silicate 106g, (III) 46 g and H₂O 90g were mixed at 70 deg.C and the mixt. was agitated vigorously. Then the gel was allowed to crystallise at 70 deg.C for 5 hrs. After sepn. of the mother liquor, the solid was washed with pure water and dried, to obtain 92 g of (VI) of particle size 0.5-0.8 microns. (6pp)

UBEI ★ D25 66892 D/37 ★J5 6092-999
 liq. detergent for kitchen use - comprises di:ester of succinic acid, anionic surfactant, non:ionic surfactant and water
UBE INDUSTRIES KK 27.12.79-JP-169294
A97 C03 (28.07.81) C11d-03/20
 27.12.79 as 169294 (15AT)

The liq. detergent comprises a compsn. consisting of 1 to 20 wt.% di:ester of succinic acid, 5 to 30 wt.% anionic surfactant, 1 to 20 wt.% nonionic surfactant and 60 to 90 wt. % water.

Diester of succinic acid has formula

$\text{ROCOCH}_2\text{CH}_2\text{COOR}$

where R is 1-20C alkyl, alkenyl, cycloalkyl, aryl or hydroxy alkyl. Pref. it is di-butyl di-propyl, di-amyl, di-hexyl, di-heptyl, di-octyl, di-decyl, di-dodecyl, di-cyclohexyl, di-allyl, di-phenyl or ethylene-glycol esters of succinic acid. The anionic surfactant is alkyl-aryl-sulphonate salt, alkyl-sulphonate salt, (alpha)-olefine sulphonate salt, polyoxy-ethylene-alkyl-ether sulphate ester, alkylsulphate ester or fatty acid-amidosulphonate salt. The

nonionic surfactant is polyoxy.ethylene.alkyl-ether polyoxy.ethylene.alkyl.aryl- ether, fatty acid ester of polyoxy.ethylene, fatty acid ester of cane sugar or block polymer of polyoxyethylene-polyoxypropylene.

The diester of succinic acid has a fungicidal effect on fungi and bacteria. (5pp)

LIOY D25 41368 A/23 = J8 1035-714
 Cleaning agent for heating appts. used in primary thread twisting - contains caustic alkali, sulphonated polyoxyethylene alkylphenyl ether sulphate and alkanol:amide

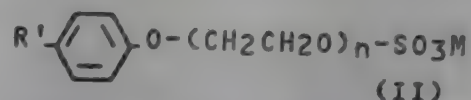
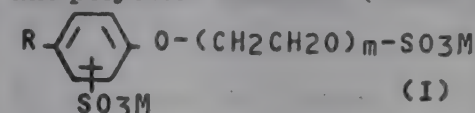
LION FAT & OIL KK 13.10.76-JP-122665

A60 E12 F01 (A25) (19.08.81) *J53047-409 + C11d-01/20 C11d-03/04

13.10.76 as 122665 (BZ)

Cleaning agent for heating apparatus for primary threadplying machine contains as effective ingredients caustic alkali and sulphonate salt of sulphate of polyoxyethylene alkylphenyl ether of formula (I):- (where R is (un)branched 5-15C alkyl; m is 3-15; M is Na or K). The cleaning agent also contains (II) (R₁ is (un)branched 5-15C alkyl; n is 3-15) and alkylol amide as a thickening agent, and is pref. in the form of aq. soln. with the compsn. of 1-10 wt.% caustic alkali, 1-15 wt.% (I), 0-15 wt.% (II) 0.5-10 wt.% alkylol amide and balance water.

The cleaning agent cleans and washes out without use of blade of metals etc. stains developed on heating apparatus of provisionary twisting machine due to lubricating agents for nylon and polyester filaments. (J53047409) (5pp)



LIOY D25 12172 X/07 = J8 1035-715
 Cleaning compn. colour indicator - for detergents and cosmetics, contg. lenco dyes

LION DENTRIFICE KK (LIOC) 19.01.74-JP-008772

E24 (D21) (19.08.81) *J50103-508 + C11d-03/40

19.01.74 as 008772 (NS)

Glass, toilet, and denture cleaners, shaving cream, and hair remover cream contained dyes which, after application, developed colour by exposure to air, indicating duration of application (i.e. soaking time).

In an example, an aq. glass cleaner contained C. I. Basic Blue 3 0.05, Bu cellosolve 2.5, Me₂CHOH, ammonia 0.15, Na alkylbenzenesulphonate 0.4, perfume 0.02, and hydrosulphite 0.25%. (J50103508) (4pp)

LIOY D25 44107 Y/25 = J8 1035-716
 Detergent compsn. for removing soap scale - comprising fatty acid obtd. from animal or vegetable oil or fat, with its corresp. ester

LION FAT & OIL KK 04.11.75-JP-131426

E17 (19.08.81) *J52056-107 C11d-07/26

04.11.75 as 131426 (126RH)

Proportion of fatty acid ester obtd. by esterification of animal or vegetable fat (or oil) to fatty acid obtd. from animal or vegetable fat (or oil) is 20:80-80:20 by wt. The fatty acid ester is methyl ester of beef tallow, coconut oil, or palm oil etc. The fatty acid is beef tallow, coconut oil, or palm oil.

The compsn. is suitable to remove the scale of soap generated in appts. for preparing soap, partic. on the inside wall of heat exchanger tubes. The compsn. is heated at e.g. 100-130 deg.C and is allowed to pass through the heat exchanger tube at ca. 50-1 m/sec. for 0.5-1 hr. The scale is easily stripped off the wall. No flaws are generated. After treatment, the detergent remaining on the wall is washed with steam and water. The compsn. which has been once used may be reused by recirculation. (J52056107) (2pp)

DAIC D25 88402 A/49 = J8 1035-718
 Granular whitener used in bleaches - contains antioxidative blue pigment, base and surfactant having aromatic sulphonate radical

DAINICHISEIKA COLOR CHEM 06.04.77-JP-038456

E19 (E24) (19.08.81) *J53124-182 + C11d-07/54

06.04.77 as 038456 (42AS)

Additive (I) consists of anti-oxidative blue pigment (III), base (IV) and surfactant (V) having aromatic sulphonate radical or its metal salt radical. As examples of (V), prod. of condensn. of naphthalene sulphonate with form aldehyde, propyl naphthalene sulphonate, butyl naphthalene sulphonate, dialkyl sulphonate, sulphonated polyester are listed. As (III), phthalocyanine blue, ultramarine blue, alkali blue lake, indigo etc. can be used. Examples of (IV) are Na tripolyphosphate, NaCO₃ and Na₂SO₄. The contents of (III) and (V) in (I) should be 0.1-30 wt.% e.g. (1-15

wt.%), and 1-10 wt.% e.g. (8-7 wt.%), respectively. The dia. of the granule of (I) is 8-60 mesh.

When cloths are soaked in a soln. of bleach contg. (I), it can be bleached and coloured slightly in blue, resulting in that it appears brightly white. By mixing of granules of (III) and (V), the change of the quality of (III) by the reaction with bleach can be prevented. (J53124182) (3pp)

ABGE = ★ D25 87286 D/37 ★ SU-789-391
Hydrated ammonium tri:poly-phosphate peroxy-hydrate - is useful as detergent and bleaching agent and is prepd. by reacting ammonium tri:poly-phosphate mono:hydrate with hydrogen peroxide

AS BELO GEN INORG 14.11.78-SU-684526

E35 (23.12.80) C01b-25/40

15.11.78 as 684526 (1511GW)

Ammonium tripolyphosphate peroxyhydrate hydrate (I) is used as a component of detergents and bleaching agents in the textile industry. The prod. is superior to the known Na and K tripolyphosphates, since it is obtd. directly as a crystalline cpd., is less hygroscopic, and obviates the necessary drying in vacuo or over P₂O₅. (I) is obtd. by reacting chromatographically pure ammonium tripolyphosphate monohydrate with 80-90% H₂O₂ in 1:9-1:11 ratio, over 1.5-2.5h at 0-3 deg.C., followed by pptn. of the prod. with EtOH or acetone, yielding crystals in 2-3 min.

The yield is maximised by secondary pptn. The cpd. is filtered and dried for 5-10h. Results of paper or TL chromatography, X-ray and chemical analysis, and ir spectroscopy gave 15.3% H₂O₂, 20% NH₃, 21.7% P, and 4.8% H₂O, confirming the (NH₄)₅ P₃O₁₀ 2H₂O₂ H₂O formula. (2pp)

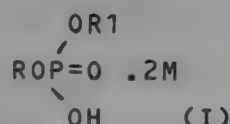
TOLK/ ★ D25 87440 D/37 ★ SU-789-575
Removal of polishing compsns. from surfaces - using defined soap, mono:ethanol-amide(s), ethanolamine di:alkyl phosphate salt, alcohol and oleic acid in water

TOLKACHEV S P 09.01.79-SU-748656

E19 (23.12.80) C11d-01/34 C11d-09/04

09.01.79 as 748656 (835GW)

Aq. detergent for removing lapping paste, metal dust etc. from surfaces, is based on soap and various synthetic additives. Cleansing efficiency is optimum when these ingredients are used at the following concns. (wt/ (wt. %): Na soap of 10-16C synthetic fatty acids 12-14, 10-18C synthetic fatty acid monoethanolamides 15-17, P-contg. cpd. of formula (I) 9-10, isopropanol or ethanol 17-20, triethanolamine 14-16, oleic acid 6-7, and balance water. In formula (I), R and R₁ are alkyl and M is mono- or di-ethanolamine. (4pp)



DOME = ★ D25 87506 D/37 ★ SU-789-643
Compsn. for chemical cleaning of textiles - contains sodium salt of butyl-oxy-stearate sulpho ester, fatty acid mono:ethanol amide(s), water and per-chloro-ethylene or tri:chloro-ethyl

DOMESTIC SERVICES 26.01.79-SU-735534

E12 F06 (25.12.80) D06I-01/04

26.01.79 as 735534 (70GW)

Compsn. for chemical cleaning of textile articles contains (I) Na salt of a sulpho ester of butyloxystearic acid, (II) a nonionic surfactant, (III) water and (IV) C₂Cl₄ or C₂HCl₃. The effectiveness of this comps. is increased by using as a surfactant (II) monoethanolamides of synthetic 10-160C fatty acids. The comps. contains in wt. % (I) 0.025-0.75, (II) 0.0095-0.25, (III) 0.1-30 and (IV) is the balance. (4pp)

SENP D25 79355 B/44 = US 4285-2
Aq. hypertonic cleansing soln. for contact lenses - contains ur and/or guanidine salt, reducing agent and pref. proteolytic enzyme

SENJU PHARM KK 24.04.78-JP-048392

E16 + P43 P81 (25.08.81) *DE2916-542 B08b-03/08

16.04.79 as 029993 (931HM)

Contact lenses contaminated with proteinaceous matter are cleaned by immersion in an aq. hypertonic soln. comprising ur or an acid salt of guanidine, a sulphydryl gp.-contg. cpd., and proteolytic enzyme.

The urea or guanidine salt is present in amt. (pref. 10-60 wt. per vol.) to make the soln. hypertonic, the sulphydryl cpd. present in amt. (pref. 0.1-5 wt.% per vol.) to reduce the inter-intramolecular disulphide bonding in the contaminant protein and the enzyme is present in amt. (pref. 0.001-5 wt.% per vol.) have a synergistic cleaning effect with the urea or guanidine salt.

After cleaning, the lenses are rinsed to remove the cleaning components of the soln. Opt., a reducing agent, e.g. a sulphite dithionite, pyrosulphite, NaBH₄ or a water-soluble mercapto gp. contg. cpd. may be used instead of the sulphydryl cpd. (6pp)

SANO ★ D25 87818 D/37 ★ US 4285-8
Aq. multi-purpose detergent compsns. - contg. nitrilo-carboxylic acid, alkyl-phenol polyglycol ether, alkanolamine, alcohol, silicone oil, and alkylene-oxide copolymer

SANDOZ AG 25.01.80-CH-000614 (25.01.80-CH-000613)

A97 E19 (25.08.81) C11d-01/72 C11d-03/30

05.02.80 as 118714 (+ 25.8.78-US-936730) (478BZ)

Aq. detergent compsn. contains 70-85% water together with 1-30% of a mixt. contg. (all by wt.): (a) 3-6 pts. of nitrilotriacetic acid or EDTA (or salts); (b) 2-11 pts. of a nonylphenol polyglycol ether (average 8-12 glycol units); (c) 5-15 pts. mono-, di-, triethanolamine; (d) 1-3 pts. of a block copolymer of propylene oxide (28-32 units/mol.) and ethylene oxide (8-12% of these units copolymerised); (e) 0-3 pts. of an 8-14C branched chain primary alcohol; and (f) 0-1 pts. of a water-soluble silicone oil. Opt. (b) based on total wt. of the aq. mixt. of components) (g) 10-40 pts. of an aliphatic or aromatic hydrocarbon, a chlorinated hydrocarbon or mixts.; and/ or (h) 5-20 pts. of a 1-3C alcohol or a water-soluble glycol may be incorporated (if (g) is absent, (b) is present in amt. 2-6 pts.).

The phosphate-free compsns. have a wide range of cleaning purposes, depending on their compsn. Thus they are useful for cleaning apparatus, surfaces, roads, etc. The compsns. have strong cleaning power (to remove dyestuffs, fat, protein, starch derivs., oils, etc.) and low tendency to form stable foams. (5pp)

PROC D25 86789 C/49 = US 4285-8
Conc. builder free liq. detergent compsn. - contg. anionic and nonionic surfactants, fatty acid and phase regulant

PROCTER & GAMBLE CO 16.05.79-GB-017133

A97 E19 (D16) (25.08.81) *EP--19-315 C11d-01/12

12.05.80 as 148615 (931HM)

Highly conc. homogeneous liq. detergent compsn. comprises 3-75 wt.% of a ternary active system and a phase regulant comprising 2-6C aliphatic alcohols contg. 1-3 OH gps., esters of diethylene glycol and 1-4C aliphatic monoalcohols, and detergent hydrotropes and water.

The ternary system comprises (i) an anionic synthetic surface active sulphonate or sulphate contg. an 8-22C alkyl such that the neutralising cation is Na, K, Li or an opt. subst. amine, (ii) a ethoxylated non-ionic surface-active 8-24C alcohol contg. 2-1 mols. of ethylene oxide per mol. of hydrophobic moiety; and (iii) 8-20 wt.% of a 10-18C fatty acid.

The wt. ratio of (i) to (ii) in the ternary system is 10-2:1 and the total wt.% of (i) + (ii) is more than that of (iii). The total compsn. has pH 6.0-7.5 at 20 deg. C. (5pp)

See Also

D15 SU-789406

- 03.12.79 ABBOTT LABORATORIES B04 D16 =DE 3045-430
 pha-hydroxy tri:peptide substrates - 07651D/05
- 03.03.80 ABBOTT LABORATORIES B04 D16 S03 *GB 2070-767
 abilising substrate-peroxide reaction prods. - 66594D/37
- E= 14.11.78 AS BELO GEN INORG D25 E35 *SU -789-391
 ydrated ammonium tri:poly-phosphate peroxy-hydrate - 67286D/37
- O/ 28.08.79 ADCOCK M R D12 =EP --34-631
 Annual fish scaler - 21390D/12
- H= 19.06.78 AS EST CHEM INST B05 D23 E15 *SU -789-492
 erpene and sesqui-terpene aldehyde cpds. purificn. - 67362D/37
- EN 07.05.71 AGENCY OF IND SCI TECH D16 =J4 7043-282
 Glucose isomerase prepn. - 67196D/37
- EN 07.05.71 AGENCY OF IND SCI TECH D16 *J8 1031-115
 Glucose isomerase prepn. - 67196D/37
- EN 27.12.79 AGENCY OF IND SCI TECH A88 D15 J01 (A14 A32) *J5
 1-803
- Aouldable semipermeable membrane - 66644D/37
- RI= 18.07.78 AGRIC ELECTRIC D14 *SU -791-367
- Double-fan grinder for animal foodstuffs - 67546D/37
- RI= 12.06.79 AGRIC ELECTRIF RES D14 *SU -791-369
- Extruder for producing animal foodstuffs - 67547D/37
- RO- 04.01.80 AGRO BIOGAS GMBH D16 *DE 3012-198
 Fermentation gas reactor - 66257D/37
- RO- 29.04.80 AGROBER MEZOGAZDAS D22 *BE -888-592
 Conveyor for continuous can steriliser, esp. hydrostatic - 66090D/37
- GRO- 30.06.80 AGROHOL SYSTEMS D16 *US 4285-774
 Microwave distillation of beer in multistage apparatus - 67785D/37
- RP 18.01.78 AIR PRODUCTS & CHEM INC A81 D21 F04 (A14) =CA
 04-026
- Moist packaged towelette contg. polyvinyl alcohol binder - 54938B/30
- IN 01.12.75 AJINOMOTO KK D15 E16 H03 =J8 1035-179
 (N)-acylamino acid derivs. soln. - 51113Y/29
- IN 10.01.78 AJINOMOTO KK D13 =J8 1035-419
 Improving the quality of denatured defatted soybean protein - 65619B/36
- IN 22.12.79 AJINOMOTO KK B02 D16 E13 *J5 6092-796
 L-Tryptophan prepn. by fermentative method - 66831D/37
- IN 27.12.79 AJINOMOTO KK B05 D16 E19 *J5 6092-784
 Acetic acid requiring Brevibacterium - 66821D/37
- IN 27.12.79 AJINOMOTO KK B05 D16 =J5 6092-794
 Fermentative L-glutamic acid prodn. - 60837D/34
- IN 27.12.79 AJINOMOTO KK B05 D16 E16 *J5 6092-795
 L-Glutamic acid fermentative prepn. - 66830D/37
- KCH= 31.10.78 AS KAZA CHEM OIL D18 *SU -789-412
 Purificn. of hide treatment brine soln. - 67298D/37
- KCH= 11.12.78 AS KAZA CHEM INST D15 (D13) *SU -789-422
 Biochemical purificn. of aq. effluents - 67308D/37
- ALBE 20.07.79 ALBERTO CULVER CO A96 D21 *US 4285-973
 Protective skin lotion contg. lactate and quat. ammonium salt -
 67867D/37
- ALBR 29.07.76 ALBRIGHT & WILSON LTD D16 =GB 1597-702
 Isomerising alpha-acids obtd. from hop extraction - 84794Y/48
- ALBR 00.00.78 ALBRIGHT & WILSON LTD D16 =GB 1597-703
 Isomerising alpha-acids obtd. from hop extraction - 84794Y/48
- ALCH- 05.06.78 ALCHEM INC D15 =CA 1105-157
 Regenerating ion exchange resins used with boiler feed water -
 36974B/19
- ALKU 11.01.80 AKZO NV B04 D16 S03 =PT --72-329
 Qualitative and quantitative immunoassays - 55418D/31
- ALTA= 22.03.79 ALTAI BUTTER CHEESE D16 (D13) *SU -789-578
 Streptococcus lactis strain 156 - 67443D/37
- ALUM- 09.12.78 ALUMINIUMIPARITERV D15 #SU -791-218
 Sedimentation tank rake - 80738B/44
- AMAN 12.04.73 AMANO PHARM KK B04 D16 =J8 1035-439
 Leucine aminopeptidase purifn - 20111W/12
- AMAN 24.12.79 AMANO PHARM KK B04 D16 *J5 6092-788
 Poly:amine oxidase AT-1 - 66825D/37
- AMAN 24.12.79 AMANO PHARM KK B04 D16 *J5 6092-789
 Microbial poly:amine oxidase DC-3 - 66826D/37
- AMAN 25.12.79 AMANO PHARM KK B04 D16 *J5 6092-787
 Choline oxidase - 66824D/37
- AMAN 27.12.79 AMANO PHARM KK B05 D16 *J5 6092-793
 Fermentative prodn. of coenzyme/q-10 - 66829D/37
- AMCY 28.08.79 AMERICAN CYANAMID CO B04 C03 D16 (D13) =ZA
 8004-053
- Antibiotic BM123-gamma pamoate complex prepn. - 19611D/12
- AMCY 28.02.80 AMERICAN CYANAMID CO C02 D13 *GB 2070-430
 Bait for ants contg. pyrimidinyl-hydrazone insecticide - 66504D/37
- AMWA- 25.01.78 AMER WATER RECYCLIN D15 #GB 1597-391
 Aerobic sewage treatment in modular tank - 12133A/06
- *ANTO/ 13.12.79 ANTOS K D18 *CS 7908-735
 Synthetic tanning agent prepn. - D/37
- ANVR 03.12.76 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24)
 =CA 1104-140
- Alpha-amino acid prodn. from amino nitrile - 38450A/22
- ANVR 04.02.80 AGENCE NAT VALORISATION D16 =FR 2475-044
 2-Nitro substd. naphtho:furan derivs. - 60796D/34
- *APVC 04.03.80 APV CO LTD D15 *GB 2070-580
 Wet oxidn. of organic wastes - 66530D/37
- APVC 02.02.81 APV CO LTD D14 =GB 2070-421
 Vessel for heat treatment of particles - 64412D/36
- ARCA- 07.01.77 ARCALON GEN PETR BV D15 E36 J09 =GB 1597-517
 Pyrolysing wet organic residues, esp. drain sludge - 49708A/28
- ARIM/ 15.04.77 ARIMA K B05 D16 (B02) =J8 1035-156
 Fermentative prodn. of indane type cpds. - 92048A/51
- *ARMO 14.04.80 ARMOUR-DIAL INC A96 D21 E19 *US 4285-826
 Toilet soap bars giving improved skin feel - 67812D/37
- ASAH 19.11.73 ASAH CHEMICAL IND KK D16 =J8 1035-438
 Lipase purificn. - 76464W/46
- ASAH 12.08.74 ASAH CHEMICAL IND KK B03 D21 E13 =J8 1035-196
 N4-acyl-cytidines prepn - 25198X/14
- ATLF 27.03.78 ATLANTIC RICHFIELD CO D15 E19 J04 =CA 1104-971
 Dehalogenation of halogenated organics - 23821B/12
- *ATWE/ 17.05.78 ATWELL G D15 *US 4285-776
 Desalination of sea or sewage water - 67786D/37
- *AUBE/ 05.02.80 AUBERT P A96 D21 (D22) *FR 2474-865
 Micronised dehydrated marine mud - 66430D/37
- *AUCO= 13.12.78 AS UKR COLLOID CHEM D15 J03 X25 *SU -791-618
 Water purifying electrolyser - 67617D/37
- *AUCR= 17.08.78 AS UKR CRYOBIOL D22 S05 X27 *SU -789-668
 Nucleus-contg. bio-cells cryogenic programmed freezing appts. -
 67510D/37
- *AUPH= 04.01.79 AS UKR PHYS CHEM D15 J01 *SU -791-391
 Crystallisation apparatus for sea and salt water desalination - 67552D/37
- AVIC- 29.08.77 AVICON INC D12 (D18 D22) =CA 1104-127
 Pyrogen-free collagen prodn. - 18542B/10
- BADI 02.04.77 BASF AG D18 =GB 1597-682
 Calcium oxide and sulphide free liming - 73034A/41
- BADI 06.10.77 BASF AG A26 D15 E16 H07 (A97 D22) =CA 1105-058
 Poly:alkylene poly:amine prepn. - 31930B/17
- BADI 01.02.80 BASF AG A97 D18 E19 =GB 2070-632
 Leather tanning or after-tanning mixt. - 58923D/33
- *BADI 16.02.80 BASF AG A60 D18 E21 F09 *EP --34-724
 Opt. metallised tri:azo leather dyes - 66310D/37
- BARR- 01.08.79 BARRY-WEHMILLER CO D13 (D14) =ZA 8004-658
 Continuous pasteuriser for canned or bottled prod. esp. beer - 88384C/50
- *BATS/ 29.12.79 BATSCHIEDER A D13 *DE 2952-708
 Cereal grain purification - 66176D/37
- BATT 06.12.77 BATTLE MEMORIAL D25 E36 F06 J03 =EP G009-480
 Automatic washing machines - 44432B/24
- BAUL 10.12.79 BAUSCH & LOMB INC A96 D22 (A26) =J5 6094-324
 Hydrophilic, transparent, soft contact lens - 28973D/16
- BAUM- 22.01.80 BAUMGARTNER PAPIERS D18 F02 =SE 8100-311
 Appts. for treating fibres used in cigarette filters - 55657D/31
- BAXT 28.01.80 BAXTER TRAVENOL LABS INC B04 D16 =US 4286-056
 Prodn. of activated prothrombin complex concentrates - 62289D/34
- BEEC 07.09.78 BEECHAM GROUP LTD B04 D16 =US 4285-932
 Pharmaceutical compsn. contg. fibrinolytic enzyme deriv. - 27702C/16
- BEEC 03.11.78 BEECHAM GROUP LTD B03 D16 #CA 1104-957
 Pseudomonic acid C from Pseudomonas fluorescens fermentation -
 54894B/30
- BEEC 05.11.79 BEECHAM GROUP LTD B04 D16 =DK 8004-688
 Blocked binary complex between streptokinase and plasminogen -
 36684D/21
- BEHW 19.07.79 BEHRINGWERKE AG B04 D22 S03 (S05) =ZA 8004-364
 Prodn. of dialysed solns. of pepsinated collagen - 12069D/08
- BEHW 19.01.80 BEHRINGWERKE AG A96 B04 D16 S03 =EP --34-692
 Carboxy- or hydroxy-alkyl polysaccharide derivs. - 55330D/31
- *BELL- 28.02.80 GEBR BELLMER MAS KG D15 *DE 3007-545
 Hygroscopic granules dissolution - 66254D/37
- BERG 25.09.79 BERGWERKSVERBAND GMBH D16 =J5 6095-309
 Mechanical defoaming device for fermenters - 25869D/15
- BERT/ 14.06.77 BERTHELSEN V D15 =GB 1597-410
 Water e.g. for swimming pools or fish tanks - 02189B/02
- *BIED/ 10.12.79 BIEDERMANN M D15 *CS 7908-566
 Industrial aq. effluents continuous purificn. - D/37
- BIOT 05.11.79 BIOTEST SERUM INST GMBH D13 =DK 8004-673
 Diet compsn. for reducing body wt. and serum lipid level - 36636D/21
- BOEF 22.03.79 BOEHRINGER MANNHEIM GMBH B04 D16 =CS 8000-
 984
- Cholesterol esterase enzyme activation in ionic soln. - 71667C/41
- BOEF 14.12.79 BOEHRINGER MANNHEIM GMBH A96 B04 D16 S03
 =J5 6092-798
- Tri:glyceride enzymatic analysis - 46150D/26
- BOEH 12.10.79 BOEHRINGER INGELHEIM B04 D16 (D21) =NO 8101-
 860
- Antibiotic polypeptide from Staphylococcus epidermidis - 32556D/18
- *BONG/ 05.02.80 BONGARD P D11 *FR 2474-822
 Heater for forced circulation of air through bakery oven - 66422D/37
- BORD 31.08.79 BORDEN INC D13 X25 =CA 1104-870
 Reducing titratable acidity and ash content of whey - 78727C/44
- *BORD/ 06.02.80 BORDET R D12 *FR 2474-825
 Butchers powered hand knife for boning meat - 66424D/37
- *BORI/ 30.10.78 BORISOV V M D15 E36 *SU -789-389
 Sulphamic acid prepn. - 67284D/37
- *BRAR- 26.01.80 BRIT ARKADY CO LTD D11 *GB 2070-408
 Flaky pastry dough prodn. - 66499D/37

- BRAU- 15.01.80 BRAUN K O KG A96 D22 F04 =GB 2070-656
Knitted elastic support bandage - 38195D/22
- BREU/ 29.06.79 BREUSTEDT A A96 D21 =DD -148-857
Mineral tooth contg. silane-coupled plastic coating - 03937D/04
- BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 =ZA 8004-150
Antimicrobial and antitumour tallysomycin derivs. - 05741D/05
- BRIM 23.01.80 BRISTOL MYERS CO A96 D21 =SE 8100-340
Method of permanent waving and conditioning - 56983D/32
- *BRT0 08.01.73 BOC LTD D15 *GB 1597-845
Treatment of sewage in sewer with oxygen - 66496D/37
- BRT0 11.05.79 AFRICAN OXYGEN LTD D15 =ZA 8002-596
Continuous aerobic sewage digestion at elevated temp. - 04332D/04
- BRUC/ 01.02.80 BRUCKER C D15 =FR 2474-889
Liq. aeration pump set for waste water purificn. - 60788D/34
- BRVI- 05.09.75 BRIT VINEGARS LTD D13 E17 =GB 1597-467
Removal of water from aq. acetic acid solns. etc. - 45032C/25
- *BRYA/ 29.02.80 BRYANT B J B04 C03 D16 *GB 2070-641
Prod. of male-specific antibodies - 66565D/37
- *BUII- 05.02.80 BUITONI D11 *FR 2474-831
Fast cooking cereal based prod. e.g. macaroni - 66426D/37
- *BUTL/ 24.06.80 BUTLER R S D16 *US 4286-066
Continuous conversion of starch to sugar and fermentation - 67910D/37
- *CALI- 04.03.80 CALIGEN FOAM LTD A97 D25 E17 *GB 2070-657
Fabric conditioner article - 66574D/37
- CALP- 25.02.77 CALPIS FOOD IND D13 =J8 1035-408
Stable fermented milk beverage prepn. - 65589A/37
- *CALY 28.01.80 CALIFORNIA INST OF TECHN D15 J01 *US 4285-819
Magnetic particles coated with chitosan - 67809D/37
- CARN- 14.05.75 CARNATION CO D21 #J8 1035-167
Sunscreen compsn. contg. rice bran oil - 84864X/45
- CART- 04.02.80 CARTIER SA D13 =FR 2474-816
Automatic demoulding of soft paste cheeses such as camembert - 60786D/34
- CELA 09.02.72 CELANESE CORP A97 D18 =J8 1035-434
Smoking mixtures - 49533U/35
- CELA 06.02.80 CELANESE CORP D15 =FR 2475-030
Continuous treatment of effluent water contg. organic impurities - 60442D/34
- CELF- 11.08.77 CELFIL CO ESTAB D18 F09 =US 4285-650
Mfr. of paper band for cigarette filter tips - 89704A/50
- CENE 04.12.79 CENTRAL ELEC GENER BOARD D15 E36 J04 S03 =J5 6092-453
Quantitative determination of chemical species - 44488D/25
- *CENG 25.12.79 CENTRAL GLASS KK D25 E33 *J5 6092-113
Fine powder zeolite prodn. - 66705D/37
- CEPA 20.11.79 CELLULOSE PAPER IND RES D15 =DE 3043-518
Recovery of waste-water residues contg. activated sludge biomass etc. - 50295D/28
- CESK 27.12.79 CESKOSLOVENSKA AKAD C04 D15 (C03 D13) #J5 6091-896
Processing of nitrogen contg. organic materials - 50256D/28
- CESK 01.02.80 CESKOSLOVENSKA AKAD C04 D15 (C03 D13) #FR 2474-901
Processing of nitrogen contg. organic materials - 50256D/28
- CETU- 24.10.79 CETUS CORP D17 E16 (D16) =DK 8003-998
Fructose prodn. from glucose - 09665D/06
- CIBA 20.12.67 CIBA GEIGY AG B05 D22 =J8 1035-664
Subst. phenyl acetic acids - 38380F/00
- CIBA 08.08.78 CIBA GEIGY CORP C03 D22 E14 F06 (F09) =US 4285-971
3,4,5-Tri(halo-phenol ester(s) - 15066C/09
- CIBA 12.09.78 CIBA GEIGY AG C02 D22 E13 F06 =FR 2475-081
Protection of keratin-contg. materials against insects - 22353C/13
- CIBA 20.07.79 CIBA GEIGY AG B02 C02 D13 (D22) =ZA 8004-363
3-Opt. protected hydroxy rifamycin S derivs. prodn. - 12209D/08
- CIPA- 07.02.80 CIPARIC INT PART D16 =BR 8100-543
Control of rate of yeast supply to prod. fermenting vessel - 62622D/35
- CNRS 30.08.79 INST NAT SANTE RECH B04 D16 S03 (S05) =GB 2070-621
Nucleic acid coding for hepatitis B antigen - 21420D/12
- COAT- 07.09.76 COATED SEED LTD A97 C03 D16 (A11) =CA 1104-844
Legume seeds coated with viable rhizobia bacteria - 35044B/18
- COHE/ 16.06.78 COHEN M D12 =CA 1104-771
Shucking molluscs by applications of mechanical shock - 32521C/18
- *COKE 30.08.79 COCA-COLA CO D13 E24 *US 4285-982
Photostable anthocyanin pigment compns. - 67875D/37
- *COKE 25.03.80 COCA-COLA CO D16 E23 *US 4285-985
Rubrolone pigments with improved sunlight stability - 67878D/37
- COLG 10.11.75 COLGATE PALMOLIVE CO D22 =CA 1103-852
Fixing device for hygienic absorbent layers - 16513Y/10
- COLG 02.02.76 COLGATE PALMOLIVE CO D22 =CA 1103-853
Baby napkin with fixing strip - 39878Y/23
- COLG 02.12.76 COLGATE PALMOLIVE CO D25 E19 =CA 1104-904
Elastic washing agent in piece form - 42523A/24
- COLG 02.12.76 COLGATE PALMOLIVE CO D25 E19 =CA 1104-905
Elastic washing agent in piece form - 42523A/24
- COLG 27.12.76 COLGATE PALMOLIVE CO B05 D21 =CA 1104-939
Non-staining oral hygiene compsns. - 30284A/17
- COLG 11.12.78 COLGATE PALMOLIVE CO A97 D25 E19 =ZA 7906-682
Detergent and softening compsn. used in washing textiles - 29209C/17
- COLG 24.10.79 COLGATE PALMOLIVE CO D21 =DK 8004-512
Stabilising carrageen cosmetic compsn. e.g. tooth paste - 36518D/21
- COLG 17.12.79 COLGATE PALMOLIVE CO A96 D22 (A11) =DE 3045-225
Absorbent material used for medical dressings, hygiene etc. - 30825D/18
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 =BR 8100-514
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 =FR 2474-862
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 (B02) =FR 2474-864
Anti-gingivitis oral compsn. - 47730D/26
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 =PT --72-424
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 =PT --72-425
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- *COLG 25.04.80 COLGATE PALMOLIVE CO B06 D21 E37 *BE -888-551
Opaque dental cream contg. two fluorinating agents - 66081D/37
- *COLG 29.04.80 COLGATE PALMOLIVE CO A96 D21 (A12) *BE -888-598
Stable polymerisable compsn. contg. methacrylate monomer - 66092D/37
- *COLG 29.04.80 COLGATE PALMOLIVE CO A96 D21 (A12) *BE -888-599
Polymerisable dental compsn. contg. methacrylate monomer - 66093D/37
- *CONO 13.02.80 CONOCO INC D25 E17 *EP --34-650
Alkoxylation of alcohol using promoted barium contg. catalyst - 66283D/37
- *CONO 14.02.80 CONOCO INC D25 E14 *EP --34-649
Alkoxylation of cresylic acid using barium or strontium catalyst - 66282D/37
- *CORG 05.09.78 CORNING GLASS WORKS B04 D16 *US 4286-061
Continuous cultivation of microbes - 67908D/37
- CORG 13.12.79 CORNING GLASS WORKS D16 (D13 D17) =J5 6092-791
Disinfecting immobilised enzyme compsns. - 46417D/26
- CORP 30.01.80 CPC INTERNATIONAL INC D13 =PT --72-375
Cheese spreads prodn. with good shelf life - 60776D/34
- CORP 05.02.80 CPC INTERNATIONAL INC A97 D16 (D17) =FR 2475-062
Prepn. of immobilised glucose isomerase - 60948D/34
- *CORP 19.05.80 CPC INTERNATIONAL INC D16 (D17) *BE -888-562
Fructosyl-transferase enzyme preparations prodn. - 66086D/37
- COUE 05.02.80 COULTER ELECTRONICS INC D16 S03 (S05) =FR 2475-227
Testing cells esp. red blood cells - 56953D/31
- *CRIS/ 15.02.78 CRISS J F D15 (D16) *US 4285-719
Compositing of human wastes and cellulosic material - 67759D/37
- CROA/ 24.07.79 CROASDELL D F D12 #CA 1104-774
Separating the cheek muscles of a pigs head - 63417B/35
- CSIR 29.11.79 COMMONWEALTH SCIENT ORG A97 D15 J01 M25 (A21) =J5 6095-344
Selective removal of ferric ions from aq. solns. - 44463D/25
- DAIC 06.04.77 DAINICHISEIKA COLOR CHEM D25 E19 (E24) =J8 1035-718
Granular whitener used in bleaches - 88402A/49
- DAIL 26.07.73 DAICEL CHEM INDS LTD A88 D18 =J5 0031-970
Tobacco filter for selectively aldehyde(s) and ketone(s) - 67223D/37
- *DAIL 26.07.73 DAICEL CHEM INDS LTD A88 D18 *J8 1035-435
Tobacco filter for selectively aldehyde(s) and ketone(s) - 67223D/37
- *DEAK 04.02.80 ZENTINS MOLEKULARBI B04 D16 *DD -148-955
Nucleic acid immobilisation for affinity chromatography - 66158D/37
- *DEAK 05.02.80 AKAD WISSENSCHAFT DDR D13 *DD -148-923
Transparent gel-forming protein fraction recovery - 66149D/37
- *DEGS 26.02.80 DEGUSSA AG D25 E33 *EP --34-693
Crystalline zeolite A powder having defined particle size prepn. - 66301D/37
- *DEGS 26.02.80 DEGUSSA AG D25 E33 *EP --34-694
Crystalline zeolite A powder having defined particle size prepn. - 66302D/37
- *DEGS 26.02.80 DEGUSSA AG D25 E33 *EP --34-695
Crystalline zeolite powder having given particle size prepn. - 66303D/37
- *DEGS 26.02.80 DEGUSSA AG D25 E33 *EP --34-696
Crystalline zeolite powder having defined particle size prepn. - 66304D/37
- DENK 23.06.78 TDK ELECTRONICS KK D15 J01 L02 =J8 1035-491
Sintered support for forming dynamic membrane - 13639C/08
- DEUS 20.12.75 DEUTSCHE GES SCHADL D13 E13 (E17) =J8 1035-412
Treating mouldy foodstuffs to neutralise toxic products - 43477Y/25
- DIER 30.04.68 DIERKS & SOHNE D11 =DS 1757-361
Dough kneading appts. comprising rotating tub - 74667B/41
- DIST- 01.02.80 DISTRIVAL SA B04 C03 D13 (D21) =FR 2474-827
Stabilised animal protein hydrolysate compsn. prodn. - 60794D/34
- DKON- 26.02.80 STUD O DE KONINCKX D16 E17 =EP --34-667
Methane gas prodn. by fermentation - 64204C/37
- *DNEP= 19.12.78 DNEPRODZERZHINSK IN D15 *SU -789-416
Removal of aluminium cpds. from aq. effluents - 67302D/37

- E= 26.01.79 DOMESTIC SERVICES D25 E12 F06 *SU -789-643
 Compsn. for chemical cleaning of textiles - 67506D/37
 P/ 10.08.72 DOPPSTADT W D15 =DS 2239-385
 Waterworks filter tank cleaner - 15743V/09
 VC 07.06.76 DOW CHEMICAL CO A91 D22 (A84 A96) =CA 1104-782
 Crosslinked polyelectrolyte film with high rate of absorption - 90542Y/51
 VC 14.12.77 DOW CHEMICAL CO A97 C03 D22 F06 (D15 F09) =CA 1-057
 q. antimicrobial compsns. based on halogenated amide - 49389B/27
 O 13.07.76 DU PONT DE NEMOURS CO B04 D16 J04 S03 (S05) =CA 1-912
 mylase assay using chromophore subst. polysaccharides as substrate - 4155A/03
 O 20.02.80 DU PONT DE NEMOURS CO A88 D15 *EP --34-920
 Water desalination by falling-film evaporator - 66392D/37
 KK- 18.12.79 DUSKIN FRANCHISE KK D23 *J5 6095-054
 Perfume-liberating compsn. - 67082D/37
 M= 23.11.78 DZHAMBUL LIGHT FOOD D18 *SU -791-372
 Continuous web cutter - 67548D/37
 R= 15.02.79 DZERZHINSK CHEM MAC D15 *SU -791-624
 Suspensions separation from paper, rags, etc. processing - 67621D/37
 I 25.12.79 EBARA INFILCO KK A97 D15 *J5 6091-900
 Processing high water content sludge - 66661D/37
 O 03.12.79 LILLY INDS LTD B07 D14 =J5 6095-327
 Tablet coating in drum with warm air stream - 44485D/25
 22.02.80 ELI LILLY & CO B03 D13 E13 *EP --34-925
 Di:hydroxy:phenoxy:tetrazole derivs. - 66394D/37
 22.02.80 ELI LILLY & CO B03 D13 E13 =GB 2070-599
 Di:hydroxy:phenoxy:tetrazole derivs. - 66394D/37
 I 04.02.80 ELLINIKI VIOMEC EPEXERGA B04 D16 =BR 8100-648
 Improved Trinders reagent for measuring hydrogen peroxide - 60708D/34
 E- 18.05.79 ENI ELEC NIJVERHEID D22 =ZA 8002-826
 Sterile conditioned atmos. for particular zone of room - 71611C/41
 VI= 06.07.78 ENVIRONMENT HYDROME D16 J04 S03 *SU -789-712
 Photometric determ. of alkaline phosphatase activity - 67526D/37
 ZY- 24.12.75 INST ENZYMOLOGIE D16 *DD -148-891
 Bio-technical beta-glucanase prodn. - 66140D/37
 AP 18.12.79 ELF AQUITAINE PROD D15 J03 M28 X25 =J5 6091-886
 Porous carbon fibre electrodes - 50114D/28
 PE 13.08.79 ESPE FAB PHARM PRAPARATE A96 D21 (A14) =J5 6092-4
 Polymer component for glass-ionomer dental cement - 14170D/09
 SO 15.12.77 EXXON RES & ENG CO D15 J01 =CA 1105-158
 Regeneration of anion and cation exchanger resins - 47439B/26
 TE- 30.06.78 ESTEE LAUDER INC B05 D21 E14 *US 4285-967
 Cosmetic for reducing redness of skin blemishes - 67864D/37
 HI 30.11.78 ETHICON INC A96 D22 =ZA 7906-478
 Anastomatic coupling - 43687C/25
 HI 08.12.78 ETHICON INC A96 D22 F01 (A23 A25) =ZA 7906-641
 Surgical suture material - 45926C/26
 RB 23.10.79 BAYER AG C03 D22 E15 F09 =DK 8004-467
 N-Sulphenylated sulphonic acid cycloalkyl-amide derivs. - 32904D/19
 RB 09.02.80 BAYER AG D15 E31 (E33) =BR 8100-744
 Precipitating agent for phosphate ions and colloids - 62597D/35
 RB 26.02.80 BAYER AG D18 E21 F09 *DE 3007-077
 Highly soluble blue dis:azo dyes esp. for paper and leather - 66220D/37
 ARH 29.10.77 HOECHST AG D15 =CA 1105-159
 Treatment of waste water contg. toxic materials etc. - 37247B/20
 ARH 13.07.79 HOECHST AG C02 D22 E13 G02 =ZA 8004-189
 2-Di:halo-methylene-3-carboxy-3-halo-5-oxo pyrrolidine cpds. - 06168D/05
 ARH 16.02.80 HOECHST AG B04 D16 =DE 3005-897
 Microbiologically produced interferon poly:peptide - 64373D/36
 ARH 23.02.80 HOECHST AG B02 D16 *EP --34-759
 Chromogenic cephalosporin cpds. for beta lactamase detection - 56320D/37
 EIT/ 10.10.80 FEIT R D22 E33 *US 4285-905
 Solid article for dispersing volatile cpd. - 67839D/37
 ERM= 05.01.79 FERMENTATION PRODUC D15 *SU -791-623
 Settling tank for purification of effluents - 67620D/37
 INA- 30.10.79 DEV FINANCE CORP NZ D12 S02 X25 =DK 8004-487
 True interface between meat and fat layers on animal carcass - 36692D/21
 INN- 14.01.77 KOMMANDIIT FINNPIPE B04 D16 J04 S02 (S03 S05) =SU -91-266
 Immunological determ. and enzymatic reactions - 51646A/29
 IRE 12.05.77 FIRESTONE TIRE & RUBBER A26 D13 F06 G06 =GB 1597-698
 Poly-organo-phosphazene(s) contg. chromophore radicals - 82136A/46
 IRM 13.09.79 FIRMENICH SA D23 E13 =FR 2475-045
 Muscone and muscenone prepn. - 24674D/14
 IRM 24.10.79 FIRMENICH SA D23 E15 =FR 2475-035
 New cyclohexene acetylenic ether derivs. - 35614D/20
 IRM 06.02.80 FIRMENICH SA D23 E13 *FR 2474-861
 Seven pyridine cpds. used as perfume ingredients - 66429D/37
 ISO 20.08.77 FISONS LTD A97 D15 E31 F01 (E33) *GB 1597-473
 Grease removal from aq. emulsions - 66483D/37
 FIVE 07.07.80 FIVES-CAIL BABCOCK D17 J01 #ZA 8004-080
 Centrifugal dryer for sugar and chemical crystals - 21927D/13
 FIVE 05.08.80 FIVES-CAIL BABCOCK D17 J01 #ZA 8004-753
 Centrifugal drier partic. for sugar crystals - 19850D/12
 FLET- 02.02.80 FLETCHER & STEWART D16 E17 =BR 8100-598
 Organic compound production by fermentation of carbohydrate - 60963D/34
 FMCC 12.10.76 FMC CORP D15 =CA 1104-946
 Sludge transfer from settling tank to collection zone - 10112A/05
 FMCC 28.03.77 FMC CORP D25 E19 F06 (D22) =CA 1105-050
 Crystalline percarboxylic acids prepn. from carboxylic acids - 68934A/39
 *FOOD= 18.12.78 FOOD IND AUTOM DES D15 E14 J04 T06 *SU -789-697
 Aq. effluent benzene content monitor - 67518D/37
 FRAM- 00.00.81 FRAM EUROPE LTD A88 D15 J01 =GB 2070-451
 Oily water corrugated plate separator - 53811C/31
 *FROM/ 29.04.77 FROMSON H A D16 G05 *US 4285-276
 Aq. solns. of hydrolase enzymes - 67683D/37
 *FUJI- 20.11.79 FUJI ZOKI SEIYAKU A96 B04 D16 *J5 6093-046
 Enzymatic immunoassay beta 2-micro-globulin determ. - 66899D/37
 *FUJI- 28.12.79 FUJI LIGHT KOGYO KK D15 H03 J01 *J5 6095-333
 Non aq. soln. adsorbing material comprises acid treated graphite - 67155D/37
 *FUJT 25.12.79 FUJISASH IND KK D15 L02 *J5 6092-145
 Aq. slurry solidifying agent - 66716D/37
 *GALE- 28.04.81 GALEN LTD B05 C03 D22 E19 (E37) *BE -888-601
 Dairy industry disinfectant compsn. e.g. for cow's udders - 66094D/37
 *GARU- 19.08.74 FORSCHUNG GARUNGSIN D16 *DD -148-889
 Protein-rich yeast prodn. - 66138D/37
 *GAUL- 29.01.80 GAULIN CORP D13 *EP --34-675
 Milk homogenisation between annular knife and valve seat - 66292D/37
 *GEES/ 20.02.80 GEESINK B T A88 D13 *EP --34-861
 Plastic mould or follower for cheese - 66364D/37
 GEME- 04.07.78 ETAB GEN MEC OUEST D11 =US 4285-653
 Folding food-crepe along diagonal by dropping into shaped casing - 05989C/04
 GENE- 05.07.79 GENENTECH INC B04 D16 =ZA 8003-600
 Cloning vector contg. semi-synthetic gene - 03727D/04
 GENO 26.04.77 GENERAL FOODS CORP C03 D13 =CA 1103-977
 Pet food contg. resilient, textured, meat-like chunks - 18349C/10
 GENO 12.09.77 GENERAL FOODS LTD D13 #US 4285-862
 Protein isolate or micelle prepn. - 27209A/15
 GENO 03.02.78 GEN FOODS LTD C03 D13 (D12) =CA 1103-980
 Proteinaceous fibres having meat-like consistency - 42430B/23
 GENO 19.06.78 GEN FOODS LTD D12 (D13) #CA 1103-981
 Meat snack analogue prepd. from lipid and non meat protein - 15516D/09
 GENO 17.08.79 GENERAL FOODS CORP D13 =ZA 8004-635
 Pudding compsn. contg. highly dutched cocoa - 32465D/18
 GENO 10.10.79 GENERAL FOODS CORP D15 =US 4285-977
 Carbonation of water - 31182D/18
 *GIVA 09.08.76 GIVAUDAN CORP D13 E16 (D18) *US 4285-984
 Savoury flavouring of foods and drinks - 67877D/37
 GLUS/ 20.04.79 GLUSCHENKO N V B05 D16 E19 #US 4286-060
 Aminoacid fermentation producing microorganism process - 73577C/42
 *GOCO= 26.02.79 GORKI CONS ENG INST D15 *SU -791-653
 Humus tank for purification of sewage by fermentation - 67629D/37
 *GOEN= 26.12.78 GORKI ENG-CONS INST D15 F06 J01 *SU -789-436
 Knitting industry dye-finishing plant effluent treatment unit - 67318D/37
 *GOND/ 26.12.79 GONDO S B04 D16 E13 J04 *J5 6092-441
 Glucose determ. - 66806D/37
 GOOR 04.04.77 GOODRICH B F CO A14 D22 (A96) =GB 1597-613
 Interpolymers of increased water-absorption capacity - 65319A/37
 *GOTH- 28.12.79 ING & MECH GOTH A D11 *DE 3042-266
 Thin filled wafer mfr. - 66264D/37
 GREE/ 15.06.79 GREEN W M D13 #CA 1104-872
 Honey coated roasted nut prod. - 57942B/31
 *GUDK/ 03.11.78 GUDKOV L V D15 *SU -789-426
 Biochemical removal of nitrate(s) from aq. waste - 67309D/37
 HAGE/ 23.08.79 HAGERDAL B A96 B04 D16 =EP --34-609
 Catalyst for biochemical conversions - 21419D/12
 *HANL/ 21.12.79 HANLEY M W D13 *US 4285-490
 Preparation of beverage with solid component - 67722D/37
 *HASE 27.12.79 HASEGAWA KK D23 E17 *J5 6092-247
 3-Methyl-3-buten-1-ol ester derivs. - 66783D/37
 *HASE 28.12.79 HASEGAWA KK D23 E17 (E14) *J5 6095-141
 4-Substd. nonanal acetal cpds. prepn. - 67105D/37
 *HASE 28.12.79 HASEGAWA KK D23 E17 (E14) *J5 6095-143
 4-Substd. nonanal derivs. for perfumes etc. - 67107D/37
 HAYA/ 28.11.77 HAYASHI K C04 D15 =JB 1035-520
 Treating organic material-contg., bad odour waste water - 55372B/30
 *HEGY/ 27.12.79 HEGYI E D21 *CS 7909-358
 Hair conditioning shampoo - D/37

HEGY/

- *HEGY/ 27.12.79 HEGYIE D21 *CS 7909-359
Oily regeneration cream - D/37
HELW/ 16.07.76 HELWIG E D14 (D23) =CA 1103-987
Liq. solids sepn. of oleaginous seeds - 06615A/04
HENK 05.02.79 HENKEL KG AUF AKTIEN D23 E17 =DD -148-959
Fat mixt. separation into fats having different melting point - 60852C/35
HENK 13.12.79 HENKEL KG AUF AKTIEN D21 E24 =J5 6092-814
Oxidn. dye-based hair-dyeing compsn. - 48041D/27
HENK 08.02.80 HENKEL KG AUF AKTIEN D23 E13 =BR 8100-719
Alkyl-substd. 1,3-dioxolan used as perfume components - 60652D/34
HERC 25.05.77 HERCULES INC A11 D22 F01 =CA 1104-002
Highly absorbent cellulose fibres coated with water-insoluble polymer - 88128A/49
HERC 07.12.79 HERCULES INC A25 D21 H01 (A96 A97) =DE 3044-925
Eihylene oxide copolymer prepd. using small amt. of epoxide - 46424D/26
HERC 25.02.80 HERCULES INC D23 E19 #GB 2070-585
Perfume compsns. contg. oxime cpds. - 73449C/42
HIRA/ 23.02.78 HIRANUMA Y D13 =J8 1035-128
High quality, rice powder-contg. filament food prodn. - 75906B/42
HITA 31.01.77 HITACHI KK D15 J03 =J8 1035-499
Preventing deposition of scale on electrodialysis membrane - 67870A/38
HITK 06.02.78 HITACHI METAL KK D21 L03 M26 V02 (X12 X24) =GB 1597-803
Palladium contg. magnetic alloy - 60129B/33
HOBM 12.09.79 HOBART CORP D22 X27 =US 4285-352
Dishwashing machine sanitising batch rinse system - 23865D/14
HOEL- 23.07.79 HOELZLE & CHELUS K A88 D15 E36 (D16 D22) =ZA 8004-393
Disinfecting flowing media with diffusible gas generating substance - 08152D/06
HOFF 23.12.76 HOFFMANN-LA ROCHE LTD D22 S05 V01 X12 =CA 1104-899
Electrostatic cicatrisation of (skin) wounds with electret dressing - 45803A/26
*HOOK 13.12.79 HOOKER CHEM & PLAST D15 E36 *DE 3046-898
Elementary phosphorus removal from waste waters - 66275D/37
HOST 24.10.79 HOLLISTER INC A96 B05 D22 =DK 8004-488
Protective sealing paste for operatively implanted orifices - 34676D/20
HOST 02.11.79 HOLLISTER INC A96 B05 D22 =DK 8004-652
Protective sealing compsn. for operatively implanted orifices - 34675D/20
HOUS- 05.02.80 HOUSE FOOD IND CO D13 =FR 2474-826
Prodn. of dry fruit chips as snack food - 64698D/36
HYMA/ 03.06.77 HYMAN S A97 B07 C03 D22 =US 4285-468
Device for dispersing volatile substance into atmosphere - 86688C/49
ICIL 30.07.76 IMPERIAL CHEM INDS LTD B04 D16 J01 K08 (S03 S05) =CA 1104-000
Composite magnetic particles for immunoassay - 91082B/50
ICIL 20.12.79 ICI AMERICAS INC B07 D13 E17 =J5 6092-758
Gamma-sorbitol polymorph having improved tableting properties - 19257D/11
*ICIL 20.02.80 IMPERIAL CHEM INDS LTD C03 D22 E16 F09 *EP --34-684
Antimicrobial 1,3-di:formyl:oxy-2-bromo-2-nitro-propane - 66299D/37
*IMPT 09.02.80 IMPERIAL GROUP LTD D18 *GB 2070-410
Reconstituted tobacco sheet prodn. - 66500D/37
*INFL 16.11.79 INT FLAVORS & FRAGR INC D18 E15 *US 4285-349
Enhancing organoleptic properties of smoking tobacco - 67695D/37
INKO- 20.05.77 INKOMAG D15 J01 (D13 D16) =US 4285-821
Filter with filter aid on support fabric between chambers - 68980A/39
*INOT- 25.02.80 IND OTTICHE RIUNITE D22 *EP --34-869
Sterilisation in chamber by alternating vacuum and gas cycles - 66365D/37
*INOZ 29.12.79 INOUE JAPAX RES INC D15 J01 *J5 6095-314
Mfg. filter for liq. contg. fine suspended solids - 67144D/37
INRG 01.02.80 INST NAT RECH AGRON B04 D16 =FR 2474-828
Recovering peptide and phospho-peptide from casein materials - 60791D/34
INRG 01.02.80 INST NAT RECH AGRON B04 D13 =FR 2474-829
Phospho:peptide prodn. from caseinate - 62670D/35
INSP 30.08.79 INST PASTEUR B04 D16 S03 (S05) =GB 2070-621
Nucleic acid coding for hepatitis B antigen - 21420D/12
INSP 05.12.79 INST PASTEUR B04 D16 =J5 6095-196
Microparticles having a surface formed of crosslinked protein - 48129D/27
INSP 07.12.79 INST PASTEUR B04 D16 =DE 3045-990
Purifying or concentrating biological particles - 44602D/25
INSP 07.12.79 INST PASTEUR B04 D16 =J5 6092-219
Purifying or concentrating biological particles - 44602D/25
*IOFF/ 05.06.79 IOFFELI D15 H05 *SU -789-420
Organic cpds. removal from petroleum processing aq. waste - 67306D/37
*IRKU 12.12.78 BIOL RES INST IRKUT D13 E14 *SU -789-514
Ortho-di:hydro-phenylalanine prepn. - 67384D/37
*ISHF 28.12.79 ISHIFUKU KINZOKU KO D21 M26 *J5 6093-840
Gold alloy used e.g. as decorative or dental material - 66980D/37
ISHM 25.12.79 ISHIHARA SANGYO KAISHA C02 D22 E13 =J5 6092-272
N-pyridinyl-2,4,6-tri:substd.-aniline derivs. - 50111D/28
*ITAF 28.02.80 ITALFARMACO A11 B04 D16 (A96) *DE 3027-929
Polysaccharide copolymer with enzymatic activity prodn. - 66258D/37
ITSH 21.07.78 INT SHOE MACHINERY CORP D18 =CA 1104-768
Shoe upper margin roughing machine - 69698B/38
IWAT/ 27.03.78 IWATANI A D16 =J5 4129-193
Prepn. of amino acid contg. nutrient drink - 67237D/37
*IWAT/ 27.03.78 IWATANI A D16 *J8 1035-644
Prepn. of amino acid contg. nutrient drink - 67237D/37
*IZZ/ 30.05.78 IZZIEF D11 *US 4285-979
Bread dough product e.g. pizza - 67872D/37
JAAT 25.07.75 JAPAN ATOMIC ENERGY RES A96 B04 D16 =J8 1035-153
Fixing of enzyme or cell in continuous reactor - 19287Y/11
*JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 *BR 8100-639
Wood preserving and protection cpd. and antiseptic detergent compsn. - D/37
JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 =BR 8100-640
Wood preserving and protection cpd. and antiseptic detergent compsn. - D/37
*JAPC 06.04.79 NIPPON SHOKUBAI KAGAKU A14 D22 (A96) *US 4286-082
Crosslinked absorbent acrylic resin compsn. prepn. - 67921D/37
JAPC 27.12.79 NIPPON SHOKUBAI KAGAKU A14 D22 (A96) =J5 6091-837
Crosslinked absorbent acrylic resin compsn. prepn. - 67921D/37
JENP 10.05.73 JENAPHARM VEB D15 =SU -791-607
Making cyanide-contg effluent safe - 83778V/48
*JILE/ 06.09.77 JILEK R D16 H09 *CS 7705-810
Reduction of sulphur content of lignite - D/37
*JOHJ 25.05.77 JOHNSON & JOHNSON A96 D22 *GB 1597-799
Disposable diaper with repositionable tape tab - 66491D/37
*JOHJ 04.06.79 JOHNSON & JOHNSON D22 *US 4285-342
Disposable diaper with absorbent batt - 67693D/37
JOHJ 23.07.79 JOHNSON & JOHNSON B D25 E11 =PT --71-584
Cationic tri:ester phosphate surfactant - 14065D/09
JOHJ 23.07.79 JOHNSON & JOHNSON B D21 E11 =PT --71-585
Cationic tri:ester phosphate for hair-care - 14064D/09
JOHJ 25.07.79 JOHNSON & JOHNSON B A83 D22 F07 =PT --71-611
Apertured elastic element in laminated disposable garment - 12171D/08
*JOHJ 18.10.79 JOHNSON & JOHNSON A35 D22 (A96) *US 4285-747
Mfg. disposable diapers with elasticated waistband - 67773D/37
JOHS 16.01.78 JOHNSON S C & SONS INC D25 E12 (E16) =CA 1104-027
Non-scratching liquid scouring compsn. - 50731B/27
*JOWE/ 16.10.76 JOWETT P D25 E17 F06 (E13) *GB 1597-357
Fabric softener compsns. - 66476D/37
KAKY 01.02.77 KAKEN YAKU KAKO KK B04 D16 =J8 1035-154
Islets activating protein from Bordetella pertussis - 57140A/32
*KALS- 28.02.80 KALSEC INC D13 *US 4285-981
Homogeneous liq. flavouring and colouring - 67874D/37
*KALU/ 19.11.79 KALUNIANTS K A D16 *US 4286-065
Microorganism cultivation on granular material - 67909D/37
*KALU= 10.05.78 KALUGA PERFUMES RES B05 D23 E14 *SU -789-485
Eugenol isomers sepn. from mixts. by multistage vacuum rectification - 67356D/37
*KANE 28.12.79 KANEBO KK A96 D21 E14 (E37) *J5 6095-109
Three/phase skin cosmetic - 67091D/37
KAOS 22.12.78 KAO SOAP KK A96 D21 E19 =J8 1035-719
Soap contg. tri:chloro-hydroxy-di:phenyl ether antibacterial - 06033C/04
*KAOS 26.12.79 KAO SOAP KK D16 E13 H04 *J5 6092-785
Cultivating microorganism using hydrocarbon deriv.) as carbon source - 66822D/37
*KAOS 26.12.79 KAO SOAP KK D16 E13 H04 *J5 6092-786
Cultivation of hydrocarbon-assimilable microorganisms - 66823D/37
*KAOS 27.12.79 KAO SOAP KK A96 D21 (A18) *J5 6092-810
Suppressing damage of hair in permanent waving - 66835D/37
*KAOS 28.12.79 KAO SOAP KK D21 E19 *J5 6095-108
Water-in-oil cosmetic - 67090D/37
*KAWI 27.12.79 KAWASAKI STEEL KK D15 *J5 6091-895
Treatment of waste water from waste oil recovering apphs. - 66660D/37
*KAZG= 11.12.78 KAZGIPROPIHCHEPROM FOOD D15 (D13) *SU -789-422
Biochemical purificn. of aq. effluents - 67308D/37
*KDFO= 14.02.78 KRASD FOOD IND RES INST D14 T06 *SU -789-086
Automated green peas canning line - 67268D/37
*KDPO= 14.02.78 KRASD POLY D14 T06 *SU -789-086
Automated green peas canning line - 67268D/37
KEND 05.12.79 KENDALL CO A96 B04 D22 L01 (A18 B07) =DE 3045-988
Transparent water absorbing polymer mixts. - 27279D/16
KERJ 30.11.77 KERNFORSCHUNGS JULICH D15 E35 K07 (E16) =US 4285-830
Treatment of waste soln. contg. ammonium nitrate - 42412B/23
*KHGE= 26.04.79 KHARK GEN PROVISION D13 S03 *SU -789-706
Drinks coffee content determ. - 67520D/37
*KHVO= 13.12.78 KHARK VODGEO WATER D15 H05 J01 *SU -791-609
Separating insoluble liquids e.g. petroleum products, from water - 67614D/37

- 27.12.79 KIBUN KK A91 D22 J01 (A11) *J5 6091-836
 Absorbing material - 66649D/37
- D = 25.12.78 KIEV FOOD IND INST D15 X25 *SU -791-652
 Methane tank for biochemical anaerobic treatment of effluent - 7628D/37
- D = 03.12.79 KIEV FOOD IND TECH D16 = DE 3045-595
 Vertical filter press to extract beer wort from mash - 44083D/25
- K 11.08.78 KIKKOMAN SHOYU KK B02 D16 = J8 1035-158
 Culture medium for prodn. of 3',5-cyclic adenylic acid - 24272C/14
- C- 01.12.77 KILCHER-CHEMIE AG D15 J01 = EP G002-422
 Cross-flow filtering appts. - 44431B/24
- AE = 28.02.80 KIEV MEDICAL INST A96 D16 (A14) = BE -887-699
 Polyacrylamide gels for medical and biological use - 40197D/22
- JG- 16.07.79 KINGSDOWN MED CONSU A96 D22 = ZA 8004-114
 Removable filter for ostomy bag - 10280D/07
- TO 24.04.78 LENINGRAD TEXTILE LIGHT D15 X25 *SU -791-617
 Drum electrolyser for cleaning sewage - 67616D/37
- MIN = 03.11.78 KAZA MINERAL ORES D15 *SU -789-401
 Organic cpds. removal from aq. effluents - 67292D/37
- LL/ 30.06.79 KOLLROSS G D12 = ZA 8003-906
 Sausage skin concertina closure - 05850D/05
- LL/ 05.11.79 KOLLROSS G D12 = DK 8004-682
 Synthetic hose gathering machine - 38494D/22
- NN 30.11.79 GIST-BROCADES NV B04 C03 D16 = J5 6092-823
 Infectious bronchitis vaccines for poultry - 44438D/25
- SH/ 28.12.79 KOSHINO S D15 E31 M13 *J5 6095-390
 Treatment of waste water contg. hexavalent chromium - 67168D/37
- DWA 26.12.79 KOWA KK B04 D16 *J5 6092-217
 Easily absorbable enzyme preparations - 66764D/37
- ON- 05.02.80 KRONENBOURG D16 S03 = FR 2475-223
 Bottle filler to sample beer from fermenting vessel - 44105D/25
- PP 12.02.80 KRUPP F GMBH D16 J04 = EP --34-739
 Froth formation of gas-liq. reactions - 62448D/35
- RUG/ 26.02.80 KRUGER E D16 *DE 3007-143
 Quickly kiln-drying green malt - 66228D/37
- UCH/ 13.09.78 KUCHERENKO G S D15 *SU -791-655
 Suspensions heat treatment appts. - 67630D/37
- URE 31.01.74 KUREHA CHEM IND KK A92 D12 = J5 0105-857
 Boiled fish paste wrapping - 67222D/37
- URE 31.01.74 KUREHA CHEM IND KK A92 D12 *J8 1035-427
 Boiled fish paste wrapping - 67222D/37
- URE 29.08.75 KUREHA KAGAKU KOGYO D16 (D13) = J8 1035-151
 Microbial food prepd. by culturing *Methylomonas probus* - 26299Y/15
- URE 22.09.77 KUREHA CHEM IND KK D13 E17 J01 = CA 1104-995
 Ethylene adsorbent of active carbon - 29978B/16
- URK 16.12.77 KURITA WATER IND KK D15 = J8 1035-498
 Sea water desalination appts. - 60430B/33
- URS 28.12.79 KURARAY KK D15 J01 *J5 6095-306
 Cleaning filter header - 67137D/37
- URS 28.12.79 KURARAY KK D15 J01 *J5 6095-307
 Feeding raw liq. into filter without clogging filter or feed header - 67138D/37
- KURZ/ 15.01.79 KURZEE D15 *DD -148-944
 Biochemical treatment plant for liq. animal waste - 66154D/37
- KURZ/ 15.01.79 KURZEE D15 *DD -148-946
 Biochemical liq. animal waste processing - 66156D/37
- KUZI/ 05.03.79 KUZIO S K D12 = CA 1104-772
 Bait fish holder - 43112C/24
- LAGU- 04.02.80 LAGUILHARRE SA D13 *FR 2474-882
 Multiple effect evapn. for conc. liq. plus air heating - 66435D/37
- LEAM- 01.02.80 LEA MFG CO D15 J01 M11 *EP --34-661
 Recovery of charged ions from soln. - 66285D/37
- LEAT- 28.03.79 LEATHER LIFE INC D18 G02 *US 4285-688
 Leather treating wax compsns. - 67743D/37
- LECO = 26.12.78 LENG D CON S ENG INST D15 *SU -791-636
 Biochemical purification of effluents appts. - 67624D/37
- LEEN = 13.12.78 LENG D CON S ENG INST D15 F06 *SU -789-437
 Decolourisation of dyeing and finishing aq. waste - 67319D/37
- LEEP = 22.05.78 LENG D EPIDEMIOLOGY B04 D16 *SU -789-576
 Echo virus strain 3081 serotype 14 - 67441D/37
- LEME/ 01.10.79 LEMELSON J H A96 D22 *US 4285-338
 Adhesive bandage - 67692D/37
- LENL 18.04.78 LENINGRAD FORESTRY ACAD D23 E15 *SU -789-481
 Low cost betulin prodn. - 67352D/37
- LEPI = 31.01.79 LENG D PIGMENT RES D15 E32 G01 (E33) *SU -789-417
 Purificn. of zinc- and barium-contg. aq. effluents from lithopone mfr. - 67303D/37
- LEPR = 02.10.78 LENG D PROMSVYAZENER D15 M11 *SU -789-411
 Hexavalent chromium and cyanide removal from aq. waste - 67297D/37
- LEWI/ 13.03.78 LEWIS R D12 *US 4285-980
 Moulded poultry product shaped as cooked bird - 67873D/37
- LIFE- 01.08.79 LIFE SAVERS INC A96 B07 D13 = ZA 8004-665
 Chewing gum contg. insoluble, particulate pharmaceuticals - 00666D/01
- LIFE- 10.12.79 LIFE SAVERS INC D13 = J5 6092-743
 Chewing gum changing from hard to soft texture on standing - 45924D/25
- LIFE- 30.06.80 LIFE SAVERS INC D13 #ZA 8003-927
 Sugarless coating for candy, chewing gum and pills - 00681D/01
- * LIKH/ 08.12.77 LIKHITE V V B04 D16 *US 4285-930
 Antigen conjugate for prodn. of high specific antibody titres - 67855D/37
- * LINA- 03.03.78 LINAMAR POLY PROD A92 C03 D22 *CA 1104-926
 Animal and insect repellent flexible polymeric material - 66118D/37
- LIOY 19.01.74 LION DENTRIFICE KK D25 E24 (D21) = J8 1035-715
 Cleaning compn. colour indicator - 12172X/07
- LIOY 04.11.75 LION FAT & OIL KK D25 E17 = J8 1035-716
 Detergent compsn. for removing soap scale - 44107Y/25
- LIOY 13.10.76 LION FAT & OIL KK A60 D25 E12 F01 (A25) = J8 1035-714
 Cleaning agent for heating appts. used in primary thread twisting - 41368A/23
- * LIOY 27.12.79 LION CORP A96 D21 (A26) *J5 6092-808
 Hair cosmetic for improving hair gloss - 66834D/37
- * LIOY 27.12.79 LION CORP A96 D21 (A14 A28) *J5 6092-811
 Hair setting compsn. - 66836D/37
- * LIOY 28.12.79 LION DENTIFRICE KK A96 B06 D21 (B05) *J5 6095-112
 Gel compsn. orally applied to prevent dental caries - 67092D/37
- * LISK/ 10.08.79 LISKA K D15 H04 *CS 7905-476
 Tar deposits elimination - D/37
- * LOTT 03.03.80 LOTTE KK A97 D13 *GB 2070-407
 Chewing gum mfr. in one step - 66498D/37
- * LUKE/ 26.09.79 LUKES E D12 *CS 7906-503
 Collagen casings for meat products - D/37
- * MACK/ 21.05.79 MACKRLES D15 *CS 7903-476
 Two-stage sepn. of suspension - D/37
- * MAED- 28.12.79 MAEDA SHELL SERV KK A96 D23 *J5 6095-055
 PVA-based pasty perfuming compsn. - 67083D/37
- MARC/ 04.12.79 MARCIALIS S D13 S03 = DE 3044-999
 Thermometric colour change indicator to safeguard frozen foods etc. - 27262D/16
- * MARU- 31.07.78 MARUTO TOYOYAMA SHO D12 *CA 1103-984
 Prodn. of palatable, flavour-rich squid prods. - 66107D/37
- MATT- 28.06.79 MATTHEWS B LTD D13 = ZA 8003-655
 Forming extruded food product - 19722D/12
- MATU 16.02.77 MATSUSHITA ELEC IND KK D15 = J5 3101-587
 Drink prodn. - 67225D/37
- * MATU 16.02.77 MATSUSHITA ELEC IND KK D15 *J8 1035-506
 Drink prodn. - 67225D/37
- MAUG 09.03.78 MAN MASCH AUGSBURG-NURNB D15 J01 = US 4285-702
 Water collector from atmospheric air - 68206B/38
- * MCNA/ 16.10.79 MCNAIR R M D22 F07 *US 4285-343
 Shape retaining sanitary napkin - 67694D/37
- * MERE 07.08.80 MERCK & CO INC B02 C02 D16 *US 4285-963
 Antibiotic C-076 cpds. from *Streptomyces avermitilis* ATCC 31267 - 67863D/37
- * MERI 11.11.71 MERCK & CO INC A11 C03 D16 F06 (A97) *US 4286-059
 Prepn. of hetero:polysaccharide 10 for thickening aq. systems - 67907D/37
- MERI 04.12.78 MERCK & CO INC D16 (D17) = ZA 7906-548
 Hetero:polysaccharide S-60 and its de:acetylated derivs. - 46698C/27
- MERI 29.10.79 MERCK & CO INC B04 D16 = DK 8004-558
 Stabilised liquid viral vaccines - 36715D/21
- MERI 02.11.79 MERCK & CO INC B04 D16 = DK 8004-622
 Prepn. of high purity hepatitis B surface antigen - 36718D/21
- MERI 03.12.79 MERCK & CO INC B04 D16 = J5 6092-822
 Lyophilisation of conc. virus compsn. - 44502D/25
- MERI 05.12.79 MERCK & CO INC A96 B04 C03 D21 (A97 D13 D15 D18) = J5 6092-956
 Dispersible blend of glyoxal treated xanthan gum and gums - 46276D/26
- MERI 15.02.80 MERCK & CO INC B04 C03 D16 = US 4285-931
 Heat labile enterotoxin isolated from *Escherichia coli* - 61853B/34
- MESP/ 01.02.80 RAMO MESPLE D J L D15 = FR 2475-029
 Prodn. of drinking water by reverse osmosis desalination - 40238D/23
- * META- 31.01.80 MFR METAL TOURNUS D11 *FR 2474-823
 Mfg. waffles etc. in split moulds holding prods. vertically - 66423D/37
- MEYE- 03.12.79 CHEM FAB MEYER-CAST B04 D13 = J5 6092-748
 Lecithin-based emulsifier e.g. for intravenous nutrition fat emulsions - 44209D/25
- MEYH- 10.05.78 MEYHALL CHEM AG A11 C03 D17 H01 = CA 1103-857
 Phosphated locust bean gum soluble in cold water - 61444B/33
- MICH/ 24.02.77 MICHEL G H B05 D21 = CA 1104-058
 Compsn. for endodontic treatment of a root canal - 80005A/44
- MIFI 16.12.76 MILLIPORE CORP B04 D16 J04 S03 (S05) = CA 1104-927
 Detection of the presence of a component of an immunochemical reaction - 46142A/26
- MIKR- 29.11.79 INST MIKROBIOLOGIA D16 (D17) = DE 3044-356
 Glucose isomerase prepn. by fermentation - 25455D/15
- MILE 23.02.79 MILES LABORATORIES INC B04 D16 J04 S05 (S03) = ZA 7907-015
 Measurement of glucose in body fluids - 53328C/31

- MILE 10.12.79 MILES LABORATORIES INC B04 D16 J04 = J5 6092-799
Tester for detecting urea contains urease - 50021D/28
- *MILE 29.01.80 MILES LABORATORIES INC D16 *US 4285-975
Brewers wort prodn. from malted and non-malted cereal - 67869D/37
- MINN 31.07.79 MINNESOTA MINING CO A81 D22 G03 (A14 A96) = ZA 8004-631
Pressure sensitive adhesive contg. iodine complex - 15923D/10
- MINN 31.07.79 MINNESOTA MINING CO A81 B05 D22 G03 (A14 A96) = ZA 8004-632
Pressure sensitive adhesive contg. antimicrobial - 10203D/07
- MINN 17.12.79 MINNESOTA MINING CO A96 D22 F01 (A23) = J5 6093-733
Gamma-radiation sterilisable body-absorbable suture - 48103D/27
- *MITC/ 10.03.80 MITCHELL W A D13 *US 4285-735
Fructose polymer extraction from dahlia tubers - 67768D/37
- MITN 06.02.78 MITSUBISHI GAS CHEM IND B05 D16 = J8 1035-157
Fermentative prodn. of coenzyme/Q-10 - 70802B/39
- MITN 11.04.79 MITSUBISHI GAS CHEM IND B04 D16 S03 = J8 1035-437
Peroxidase enzyme microbiological prodn. - 81134C/46
- MITP 27.12.79 MITSUBISHI PETROCH KK A96 D21 (A14) = J5 6092-809
Hair setting compsn. mfr. by copolymerising ethylene monomers - 70178C/40
- MITR 00.00.78 MITSUBISHI RAYON KK A88 D15 J01 (A14) = J8 1035-490
Dryable (co)polyacrylonitrile membrane with reversible properties - 66007W/40
- MITR 27.12.79 MITSUBISHI RAYON KK A41 D15 E16 = J5 6092-252
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- *MITR 27.12.79 MITSUBISHI RAYON KK A96 D22 *J5 6094-322
Contact lens - 67029D/37
- *MITT 27.12.79 MITSUBISHI MONSANTO KK A14 C02 D22 E13 (A60) *J5 6093-741
Anti-algae polyvinyl chloride compsn. - 66943D/37
- *MITT 27.12.79 MITSUBISHI MONSANTO KK A14 C02 D22 E13 (A60) *J5 6093-742
Algicidal PVC compsn. - 66944D/37
- *MOHN/ 05.02.80 MOHNKE H D12 *DD -148-922
Fish gutting machine - 66148D/37
- MONS 09.02.77 MONSANTO CO A88 D15 E14 J01 (A17) = CA 1103-866
Hollow fibre membranes of ethylene copolymers - 38324A/21
- *MOST 21.11.78 MOSCOW STEEL ALLOYS INST D15 E14 *SU -789-421
Removal of phenol(s) from aq. effluents - 67307D/37
- MRSC 02.08.76 MARS LTD C03 D13 = CA 1103-979
Protein foodstuff prepd. from blood - 10232A/06
- NATL 01.07.77 NL INDUSTRIES INC D21 L02 M22 = CA 1105-043
Organophilic clay gellant for alcohol compsns. - 72499A/40
- NATL 01.11.79 NL INDUSTRIES INC A94 D22 F07 (A14 A96) = SE 8007-644
Water absorbent composite sheet, prodn. - 17515D/11
- *NEAR/ 26.09.78 NEARY M P D14 E15 S03 *US 4285-697
Food package contg. spoilage indicator - 67747D/37
- *NECE/ 17.12.79 NECESANY F D15 *CS 7908-869
Continuous elimination of impurities from water and aq. systems - D/37
- *NEGM/ 20.02.79 BENJAJEV NEGMAT J D16 *CS 8001-347
Starch contg. hydrolysate for alcoholic fermentation - D/37
- NELS/ 09.01.78 NELSON R W C03 D13 = CA 1103-976
Stable emulsified liquid starch prod. - 52805B/29
- NELS/ 02.07.79 NELSON C L A96 D22 = US 4285-071
Prosthesis cement spacer - 06053D/05
- NEME/ 15.09.79 NEMETZ H D16 = ZA 8004-810
Mfg. compost by decomposing organic waste in mechanised silo - 05770D/05
- NENG 19.07.76 NICHOLS ENG & RES D15 J09 = CA 1104-763
Furnace for burning alkali metal contg. waste - 66541Y/37
- NEST 14.03.72 SOC PROD NESTLE SA D13 = J8 1035-422
Evenly-coloured powdered food compsns - 50254U/35
- NEST 27.04.77 SOC PROD NESTLE SA D13 J08 = GB 1597-687
Cryogenic desiccation of a product by hyper-frequencies - 76255A/43
- NEST 12.01.78 SOC PROD NESTLE SA D13 = CA 1103-983
Decaffeinating aq. tea extract - 47165B/26
- *NEST 06.02.80 SOC PROD NESTLE SA D13 *FR 2474-830
Treating extracts of roasted prods. other than coffee - 66425D/37
- NEXU- 01.11.79 NEXUS APS C03 D13 E17 = DK 7904-638
Fatty acid partial ester(s) of glycerol condensates - 40195D/22
- NICA- 30.10.79 JAPAN FOUND CANCER B04 D16 = DK 8004-584
DNA coding for poly:peptide with interferon activity - 34772D/20
- *NICH/ 26.06.79 NICHOLAS J A C03 D15 E32 *ZA 8003-336
Preventing growth of algae in pools etc. - 67957D/37
- *NIEN- 29.12.79 NIPPON ENVIRO KOGYO D15 J01 *J5 6095-313
Water filter with tube shaped element - 67143D/37
- NIIG 28.10.77 NIIGATA ENG KK D15 J01 = J8 1035-502
Ultrafiltration of e.g. bacteria and enzyme - 48116B/26
- *NIPK 27.12.79 NIPPON KAYAKU KK A96 D22 (A14 A97) *J5 6091-838
Water-absorbing material - 66650D/37
- *NIRO 15.02.80 NIRO ATOMIZER A/S D14 *GB 2070-751
Drying powdered milk on vibrating bed - 66590D/37
- *NISO 26.12.79 NIPPON SHOKUHIN KAK KK D13 *J5 6092-740
Sugarless candy mfr. - 66819D/37
- *NISS 20.10.75 NISSHIN FLOUR MILL KK A91 B05 D23 E19 *J5 6095-124
Purifying isoprene derivs. - 67097D/37
- NITA 22.12.78 NITTETU CHEM ENG D15 E36 = US 4285-820
Treating waste liquid contg. boron cpds. - 49139C/28
- NITL 12.04.77 NITTO ELECTRIC IND KK D15 J01 = J8 1035-485
Tubular membrane separator used for liquid waste sepn. - 88849A/49
- NITL 30.05.77 NITTO ELECTRIC IND KK D15 J01 = J8 1035-486
Water permeable filter member for ultrafiltration etc. - 10697B/06
- NITL 31.05.77 NITTO ELECTRIC IND KK A35 D15 J01 (A25) = J8 1035-487
Filtering waste soln. contg. polyoxyethylene cpd. - 10982B/06
- *NITL 29.12.79 NITTO ELECTRIC IND KK D15 J01 *J5 6095-305
Liq. filter element wound around shaft - 67136D/37
- NITT 27.12.79 NITTO CHEM IND KK A41 D15 E16 = J5 6092-252
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- NMHB 10.12.79 NORDISCH MASCH R BAADER D12 = DS 2949-631
Double fish fillet skinning machine - 44299D/25
- NOEL- 06.02.80 NOELL GG GMBH D15 = FR 2474-884
Mechanical water purification rotary disc filter - 60596D/34
- NOEL- 06.02.80 NOELL GG GMBH D15 = FR 2475-028
Mechanical water purification grating system - 60609D/34
- *NORD- 02.05.79 NORDA INC D13 *US 4285-983
Fixation of volatile flavouring agents - 67876D/37
- *NORQ 07.02.79 NORIINSHO KK B02 D13 E13 *J5 6095-182
Catechin cpds. prepn. - 67122D/37
- *NOVO 06.02.80 NOVO INDUSTRIA/S D16 E17 *BR 8100-550
Ethanol prodn. by fermentation - D/37
- NPDC 24.08.72 NATIONAL PATENT DEV CORP B05 D21 E19 (E33 E34) = J8 1035-752
N-halogenoamine soln formed in situ - 19722V/11
- *OMRO 25.12.79 OMRON TATEISI ELTRN KK B04 D16 *J5 6092-445
Glutamic acid oxalo:acetic acid trans:amylase determination - 66807D/37
- *OMRO 25.12.79 OMRON TATEISI ELTRN KK B04 D16 *J5 6092-446
Glutamic acid pyruvic acid trans:amylase determ. - 66808D/37
- OREA 13.11.75 L'OREAL SA A96 D21 (A26) = CA 1105-197
Cross linked polymers contg. quaternary ammonium groups - 34502Y/20
- OREA 02.03.77 L'OREAL SA A96 D21 = CA 1104-935
Cosmetic hair treatment compsns. - 65652A/37
- OREA 10.05.77 L'OREAL SA D21 E23 = CA 1104-933
Colourant soln. for hair dyeing compsn. prepn. - 82087A/46
- OREA 28.11.79 L'OREAL SA A96 D21 = J5 6092-812
Hair treatment compsn. - 42102D/24
- OREA 28.11.79 L'OREAL SA A96 D21 = J5 6092-813
Hair treatment compsn. contg. an anionic polymer - 42103D/24
- OREA 13.12.79 L'OREAL SA A96 D21 = DE 3046-964
Hair dyeing with scalp pretreatment - 46001D/26
- OREA 13.12.79 L'OREAL SA A96 D21 = J5 6092-815
Hair dyeing with scalp pretreatment - 46001D/26
- OREA 18.12.79 L'OREAL SA D21 = J5 6092-805
Cosmetic oils based on jojoba and sunflower oils - 47823D/27
- OREA 21.12.79 L'OREAL SA A96 D21 (A26) = DE 3048-075
Cationic condensn. polymers contg. quat. nitrogen atoms - 47836D/27
- OREA 21.12.79 L'OREAL SA A26 D15 F06 (A96 A97 D22) = DE 3048-076
Cationic quat. nitrogen-contg. condensn. polymers - 47837D/27
- OREA 21.12.79 L'OREAL SA A96 D21 (A26) = J5 6092-806
Cationic condensn. polymers contg. quat. nitrogen atoms - 47836D/27
- OREA 21.12.79 L'OREAL SA A96 D21 (A25) = J5 6092-807
Quaternised polymer cosmetic agents - 47838D/27
- OREA 21.12.79 L'OREAL SA A26 D21 F06 (A96 A97 D15) = J5 6093-734
Polycationic polymers contg. quat. nitrogen atmos. - 47839D/27
- ORIO- 31.10.79 ORION-YHTYMAE OY B01 D21 E13 = DK 8004-536
Topical compsn. for promoting hair growth and preventing dandruff - 36705D/21
- ORIO- 13.11.79 ORION RESEARCH INC D15 J04 S03 = DE 3042-504
Monitoring sample streams contg. fluoride or sulphide series - 34205D/19
- ORON- 02.06.78 DE NORA ORONZIO IMP D15 E13 J03 (E36) = CA 1103-912
Extraction of metal ions from alkaline aq. soln. - 89755B/50
- ORTH 18.09.79 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6095-118
Mono:clonal antibody from hybridoma ATCC CRL 8016 - 23876D/14
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6095-120
Hybridoma ATCC CRL-8020 - 46284D/26
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6095-121
Hybridoma ATCC CRL-8014 - 46285D/26
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 = J5 6095-122
Mono:clonal antibody against particular human thymocyte antigen - 48100D/27
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6095-123
New mono:clonal antibody against particular human thymocyte antigen - 48101D/27
- *ORTH 11.08.80 ORTHO PHARM CORP D23 *US 4285-832
Residual vegetable oil recovery from spent bleaching clay - 67813D/37
- OSAY 13.12.79 ENSO GUTZEIT OY D15 = J5 6091-892
Purification of waste water by anaerobic bacterial treatment - 59087D/33
- OTTC 18.01.77 OTTO DR C & CO GMBH D15 E14 = CA 1104-065
Treating aq. effluent esp. to remove phenol cpds. - 32162A/18
- *OTTE/ 25.02.80 OTTENSE P K C03 D12 *EP -34-872
Dehydrating pre-coagulated protein-contg. sludge - 66368D/37

E/ 28.04.80 PANELLA C D11 *BE-888-593
 Molding pre-baked patisserie prod. for cutting individual portions - 6091D/37
 E 11.06.79 PASSAVANTW MICHEL BACHER D15 #US 4285-818
 Sewage purification system - 51093B/28
 E- 02.01.79 PATENT TECHN INC D13 =US RE30-722
 Mouldable coating for ice cream white hardens to a shell - 43990A/24
 N- 28.04.80 PEANUT RES & TESTIN D13 S03 *US 4285-698
 Assaying aflatoxin cpds. in peanuts - 67748D/37
 IN 17.12.79 PENNWALT CORP D21 M26 =J5 6093-839
 Treating mix of dental amalgam alloy and silver copper alloy - 23192D/13
 IC- 22.12.77 PERC SRL D15 J01 =EP G002-727
 Continuous effluent filtration - 49247B/27
 IS 21.01.80 PERSONAL PRODUCTS CO A96 D21 (A11 A14) =NO 8100-3
 Absorbent compsn. consisting of hydrocolloid - 55586D/31
 IS 21.01.80 PERSONAL PRODUCTS CO A96 D21 (A11 A14) =SE 8100-3
 Absorbent compsn. consisting of hydrocolloid - 55586D/31
 RU 30.11.77 PERMUTIT-BOBY LTD D15 =EP G002-342
 Ion exchange water purifying appts. - 44394B/24
 RW/ 27.02.80 PERWANGER A D16 *DE 3007-396
 Farmyard manure gas fermenter - 66246D/37
 TR 20.11.79 VEB PETROCHEM SCHWEDT C03 D16 H04 J01 (D13) *DD - 8-860
 Apparatus for sepn. of oil from microbial suspension - 66124D/37
 EI/ 20.12.79 PFEIZER H J D22 =J5 6091-818
 Sterilising coolant filter unit for dental surgery - 50056D/28
 IZ 26.10.77 PFIZER INC B04 C03 D16 (D13) =CA 1104-958
 Polycyclic ether antibiotic 47224 - 35178B/18
 IZ 29.10.79 PFIZER INC B05 D13 E14 (E16) =DK 8003-919
 Purificn. of L-aspartyl-L-phenylalanine alkyl ester sweeteners - 00637D/01
 FIZ 21.01.80 PFIZER INC B05 D13 E19 *EP --34-876
 L-Aspartyl-D-amino acid di:peptide amide(s) - 66370D/37
 FIZ 21.01.80 PFIZER INC B05 D13 E19 =NO 8100-171
 L-Aspartyl-D-amino acid di:peptide amide(s) - 66370D/37
 HAA 04.03.77 PHARMACIA FINE CHEM A11 B04 D16 (A97) =GB 1597-57
 Reactive derivs. of sulphhydryl contg. polymers - 65621A/37
 HIM 21.02.80 PHILIP MORRIS INC D18 E34 *EP --34-922
 Treating tobacco by extrn., removing potassium nitrate - 66393D/37
 PROC 09.05.77 PROCTER & GAMBLE CO D13 =GB 1597-783
 Modified soya protein prepn. by heating soya in aq. alkali - 82084A/46
 PROC 03.06.77 PROCTER & GAMBLE CO D13 E13 =CA 1103-982
 Dry mix for forming dietetic carbonated instant beverage - 88223A/49
 PROC 18.07.77 PROCTER & GAMBLE CO D25 E19 =CA 1104-760
 Antistatic, fabric softening detergent additive - 08409B/05
 PROC 16.05.79 PROCTER & GAMBLE CO A97 D25 E19 (D16) =US 4285-341
 Conc. builder free liq. detergent compsn. - 86789C/49
 PROC 15.10.79 PROCTER & GAMBLE CO A96 D21 =J5 6095-110
 High humectant content tooth:paste - 21299D/12
 PROC 15.10.79 PROCTER & GAMBLE CO D21 *J5 6095-111
 Toothpaste compsn. - D/37
 PROC 07.02.80 PROCTER & GAMBLE CO B05 D21 E16 *EP --34-846
 Low viscosity, stable anti-dandruff lotion shampoo - 66355D/37
 PROD- 31.01.80 PRODEF SOLITAIRE A82 D18 G02 *FR 2475-057
 Water- and oil-proofing waxing compsn. esp. for leather - 66453D/37
 PROF- 23.07.79 PROF NURSING CARE A96 D22 =ZA 8004-174
 Wound dressing facilitating wicking of exudate - 17758D/11
 PROG- 12.09.77 PROGRESSIVE RES PRO A97 D15 G04 H03 =CA 1104-993
 Lightweight expanded silicate aggregates - 03905B/02
 QUIN/ 08.05.78 QUINLIVAN S L D11 *US 4285-978
 Decorating baked goods with sharp coloured patterns - 67871D/37
 RAAT/ 25.01.80 RAATZ G J D13 =NO 8100-230
 Onion peeler - 59006D/33
 *RAKC/ 09.11.78 RAKCHEEVA L V D15 *SU -789-413
 Purificn. of fluorine-contg. aq. effluents - 67299D/37
 *RALS 09.11.77 RALSTON PURINA CO C03 D13 *US 4285-974
 Liq. carbohydrate feed supplement (e.g. molasses) for cattle - 67868D/37
 RALS 21.01.80 RALSTON PURINA CO C03 D13 =NO 8100-170
 Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
 RALS 21.01.80 RALSTON PURINA CO C03 D13 =SE 8009-025
 Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
 *RAMI/ 23.07.79 RAMIK P D15 J01 X25 *CS 7905-130
 Electromagnetic coagulator - D/37
 RAPI- 24.10.79 RAPIDASE BV D13 E12 (D16 E33 E34) =DK 8004-486
 Thermally sensitive microbial rennet - 34720D/20
 RECK 30.05.79 RECKITT & COLMAN PR D25 E16 (E12 E34) =ZA 8002-871
 Aq. thickened bleach compsns. - 02418D/03

*REGC 10.08.79 UNIV OF CALIFORNIA D12 *US 4285-099
 Squid processing to remove tentacles and eyes - 67668D/37
 REGC 12.09.79 UNIV OF CALIFORNIA B04 D16 =J5 6095-199
 DNA transfer vectors contg. codes for human insulin precursors - 05762D/05
 *RELE/ 13.02.79 RELEG D15 *SU -791-625
 Pond clarifier for effluents and sewage - 67622D/37
 *RESE 21.08.78 RESEARCH CORP D22 J03 X25 (D15) *US 4285-796
 Electrolysis electrode for disinfecting aq. soln. - 67798D/37
 REVL 18.11.76 REVLON INC D21 E17 =CA 1104-934
 Aq. reducing solns. for permanently waving hair - 40693A/23
 *REZN/ 29.01.79 REZNICHENKO V V D15 E24 *SU -789-427
 Purificn. of aq. waste from aniline-dye processes - 67310D/37
 RHON 29.11.79 RHONE-POULENC INDUSTRIES A97 D17 =DE 3044-737
 Beet juice purificn. by contact with ion exchangers - 44074D/25
 RHON 29.01.80 RHONE-POULENC AGROC A97 C01 D16 =BR 8100-480
 Phosalone insecticide compsn. contg. thickener and surfactant - 59059D/33
 RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 =ZA 8001-561
 Heating or cooling plant for wet solids partic. pulpy materials - 71596C/41
 RIKA 30.03.78 RIKAGAKU KENKYUSHO B03 D13 E13 =J8 1035-678
 Selectively benzylated sugar derivs. prodn. - 83506B/46
 RIKA 07.07.79 RIKAGAKU KENKYUSHO A96 B04 D16 =J8 1035-436
 Prodn. of DNA relaxing enzyme - 22370D/13
 RIKL 05.11.79 RIKER LABS INC A96 B04 D16 =US 4286-064
 Enzyme compsn. for debridement of burns - 40176D/22
 *RIKV 27.12.79 RIKEN VITAMIN CO LTD C03 D13 *J5 6092-746
 Mulberry leaf powder for artificial feed for silkworms - 66820D/37
 *RITP 05.03.80 SYBRON CORP D15 X25 *GB 2070-900
 Organic free purified water - 66604D/37
 ROHG 19.12.79 ROHM GMBH A14 D15 (A97) =J5 6093-703
 Water soluble, solid polymer prodn. - 50011D/28
 *ROST= 19.02.79 ROSTOVSKII VODOKANA D15 T06 *SU -789-402
 Settling tank aq. effluent clarification control appts. - 67293D/37
 RUHR 22.12.78 RUHRCHEMIE AG D23 E17 =CA 1105-056
 2-Methyl-undecanal prodn. from undecanal - 46425C/27
 *RUML/ 18.01.79 RUMLV D15 M11 *CS 7900-420
 Thermal elimination of plating sludge - D/37
 RUTG 11.12.79 RUTGERSWERKE AG D23 E14 =J5 6092-248
 Aryl carboxylate prodn. from mono:aryl thallium salt - 46255D/26
 *SAKU- 28.12.79 SAKURA CRAPAS KK D22 E21 G02 *J5 6095-053
 Ethylene oxide sterilisation indicator paper - 67081D/37
 *SALV/ 07.02.80 DE SOUZA JARDIM J D13 *BR 8000-854
 Rice industry residues agglomerate - D/37
 *SALV/ 30.04.81 SALVETTI M G A35 D15 (D16) *BR 8102-769
 Plastics bio-digester - D/37
 SAND/ 28.11.79 SANDERSON C H D15 J01 =J5 6095-332
 Device for magnetic treatment of fluids - 44633D/25
 SANO 15.12.78 SANDOZ LTD B04 D16 =ZA 7906-820
 Antiviral vaccine prodn. - 47508C/27
 *SANO 25.01.80 SANDOZ AG A97 D25 E19 *US 4285-840
 Aq. multi-purpose detergent compsns. - 67818D/37
 SANO 01.02.80 SANDOZ SA A87 D18 F06 (A97 F09) =FR 2475-053
 Compsn. contg. partly saponified lecithin and a polyhydroxy cpd. - 58792D/33
 SANW- 26.12.77 SANWA SHOJI KK D13 =J8 1035-425
 Paste food prepn. - 62511B/34
 SAOC 24.09.76 SANRAKU OCEAN D16 =J8 1035-152
 Methanol katabolisable marine bacteria - 37669A/21
 SAOK 08.06.79 SANYO KOKUSAKU PULP A88 D15 F09 (A26) =J8 1035-495
 Mfg. ultrafiltration membrane used to treat pulp plant waste water - 14695D/09
 *SARS/ 27.12.79 SARSUNOVA M D21 *CS 7909-357
 Half-oily regeneration cream - D/37
 *SASA- 26.12.79 SASAKURA KIKAI SEIS D15 *J5 6091-888
 Additive to produce drinking water - 66659D/37
 SAUN/ 17.12.76 SAUNIER B D15 E36 J04 S03 (S05) =CA 1105-084
 Amperometric analysis of free chlorine in a soln. - 28844A/16
 *SAXB- 04.03.80 SAXBY NOTTINGHAM LTD WE A97 D25 E17 *GB 2070-657
 Fabric conditioner article - 66574D/37
 *SCHA/ 27.02.80 SCHANZER C03 D13 (D16) *DE 3007-383
 Concentrate based on yeast liq., useful in human or animal nutrition - 66243D/37
 SCHD 25.01.78 SCHERING AG B01 D16 =CS 7900-567
 17-Alpha-alkoxy:alkoxy-pregn-4-ene-3,20-di:one derivs. - 56511B/31
 SCHE 17.01.80 SCHERING CORP B02 D16 =PT --72-348
 Kijanamicin from Actinomadura kijaniata ATCC 31588 - 62579D/35
 *SCHM/ 04.02.80 SCHMIDT E D23 (D15) *DD -148-924
 Fat-contg. sec. raw material processing - 66150D/37
 SEIK- 21.05.76 SEIKEN KAI FOUNDATI D22 (D16) =CA 1104-956
 Deodorising compsn. for excreta - 86953Y/49

- SEIK- 26.08.77 SEIKEN KAI FOUNDATI B04 D16 #CA 1104-929
Lactobacillus preparation for treating inflammatory diseases - 71815Y/40
- SEME/ 20.03.79 SEMENOVSKII YU V D15 *SU -791-638
Air force feeder used for biochemical purification of effluents - 67625D/37
- SENP 24.04.78 SENJU PHARM KK D25 E16 =US 4285-738
Aq. hypertonic cleansing soln. for contact lenses - 79355B/44
- *SETO- 26.06.79 SETON CO D18 E19 *US 4285-689
Tanning compns. contg. poly:aldehyde-amine reaction prod. - 67744D/37
- SETO- 21.01.80 SETON CO A11 C03 D13 (A97) =US 4285-986
Pure oligopeptide(s) prepn. from collagen - 55639D/31
- SHEL 26.10.79 SHELL INT RES MIJ BV A11 D16 =DK 8004-530
Xanthan gum depolymerising enzyme prodn. - 46254D/26
- *SHIN- 26.12.79 SHINOZAKI SEIKA KK D13 *J5 6092-740
Sugarless candy mfr. - 66819D/37
- SHIO 29.12.77 SHIONOGI KK B03 C02 D22 =CA 1105-012
Amino-glycoside derivs. - 52972B/29
- SINA- 18.05.79 SINATIN SA D23 (D16) =ZA 8002-602
Prepn. of oak flavour used for ageing alcoholic prods. - 64236C/37
- *SIPE= 10.11.78 SIBE PETRO IND INST A97 D15 H01 *SU -789-433
Salt sedimentation prevention in oil-field equipment - 67315D/37
- SMAL/ 02.07.79 SMALL SH D15 =ZA 8003-972
Waste disposal appts. for vacuum sewer system - 09729D/06
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 =NO 8100-111
sludge thickening appts. - 60887D/34
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 =SE 8100-303
sludge thickening appts. - 60887D/34
- SMHL 01.02.80 SIMON HARTLEY LTD D15 J01 =FR 2475-031
Sludge dewatering appts. having foraminous belt - 60888D/34
- *SMIN 05.03.80 SMITH & NEPHEW LTD A14 D22 G03 (A81 A96) *GB 2070-631
Copolymer of butyl acrylate ethyl-hexyl acrylate and acrylic acid - 66558D/37
- SMIT/ 23.04.79 SMITH RE B04 D16 =EP --34-586
Fluorometric or spectrophotometric determ. of enzymes - 79329C/45
- SNAM 23.05.78 SNAMPROGETTI SPA B05 D16 E19 =CS 7903-538
Prepn. of D-aminoacids - 85938B/48
- SODR- 31.01.80 SODRI SOC DEV RECH A11 D16 J04 =FR 2475-061
Enzymatically active metallo-protein prepn. - 58952D/33
- SODR- 31.01.80 SODRI SOC DEV RECH A11 D16 J04 =ZA 8007-376
Enzymatically active metallo-protein prepn. - 58952D/33
- *SOLL- 29.02.80 SOLLICH GMBH R CO A88 D13 *GB 2070-501
Making uniformly sized confections, e.g. chocolates - 66521D/37
- *SOLO/ 13.12.79 SOLOMON RW D12 *ZA 8101-594
Meat extraction from crustacean legs - D/37
- *SOVI- 06.01.77 SOUTHERN VINYARDS L D16 *GB 1597-464
Venting closure for fermentation vessel - 66481D/37
- *STAA- 08.04.80 STAATLICHES IMMUNPR B04 D16 *DD -148-890
Neuraminidase microbiological prodn. - 66139D/37
- STAB- 29.12.78 STABLEX AG D15 M11 =EP G013-822
Chemical pretreatment of hazardous waste in containers - 57267C/33
- *STAD 23.11.79 STANDARD OIL CO (IND) D16 *US 4285-976
Accelerated yeast autolysis - 67870D/37
- *STAH 30.07.80 STANDARD OIL CO (OHIO) D15 J04 S03 *US 4285-792
Self-cleaning pH meter - 67794D/37
- *STAH/ 04.10.76 STAHLSCHEMIDT V D16 *GB 1597-354
Composting of organic waste materials - 66475D/37
- *STAR- 11.10.77 STAR-KIST FOODS INC C03 D13 *CA 1103-978
Prepn. of coated solid semi-moist animal food particles - 66106D/37
- STAU 26.10.76 STAUFFER CHEMICAL CO D25 E12 (E34) =CA 1104-028
Cleansing compsn. for hard surfaces, e.g. stainless steel - 32393A/18
- *STAV= 20.03.79 STAVROPOL POLY D15 *SU -791-647
Cleaning wash-water of steam generators fired by sulphurous oil - 67627D/37
- *STAV= 27.04.79 STAVROPOL POLY D15 *SU -791-643
Thermal softening of water used as steam-generator feed - 67626D/37
- STEK/ 22.11.78 STEKOLNIKOV LI D16 =US 4286-062
Hyaluronidase-contg. compsn. for accelerating meat-ripening - 41733C/24
- STER 15.09.77 STERLING DRUG INC D22 J01 (D15) =CA 1104-795
Purifying odorous waste gases, esp. from water treatment - 20017B/11
- STIE 23.03.77 STIEFEL LAB A96 D21 =CA 1104-937
Water-absorbent body-dusting powder - 71155A/40
- *STRE/ 22.02.80 STRECKBEIN R G D21 (D22) *DE 3006-659
Bio:absorbable wound dressing, esp. for dentistry - 66200D/37
- STRK 26.10.79 STORK AMSTERDAM BV D15 =DK 8004-506
Anaerobic pre-fermentation of aq. wastes - 34777D/20
- *STRO/ 29.11.79 STRONG SY D22 *US 4286-002
Disposable urine collection pad for bed-ridden patient - 67886D/37
- *SUGA= 07.07.78 SUGAR IND INST D15 *SU -791-635
Biochemical purification of sewage installation - 67623D/37
- SUME 10.08.76 SUMITOMO ELEC IND KK A88 D15 J01 =CA 1104-008
Hydrophilic porous fluorocarbon resin structure - 14398A/08
- *SUMI- 12.01.77 SUMITOMO JUKIKAI EN D15 *J5 6095-396
Biological waste treatment by successive denitrification - 67170D/37
- SUMO 25.04.78 SUMITOMO CHEMICAL KK A96 B04 D16 #GB 1597-436
Carriers for enzyme immobilisation - 80990B/45
- SUMO 27.04.78 SUMITOMO CHEMICAL KK A96 B04 D16 #CA 1104-110
Carriers for enzyme immobilisation - 80990B/45
- SUNZ 27.07.79 SUN STAR HAMIGAKI K B04 D16 =J8 1035-440
Compsn. for determining sulphide content of saliva - 29595D/17
- *SUNZ 27.12.79 SUN STAR HAMIGAKI K D21 *J5 6092-208
Skin-whitening compsn. - 66757D/37
- SVME- 25.01.78 SVENSKA MEJERIERNAS D13 =CA 1103-986
Continuous prodn. of buttery prod. spreadable at low temps. - 37197B/2
- *SWAL 20.12.79 SCHWEIZERISCHE ALUM D15 M28 *DE 3004-058
Industrial water purificn. from fluoride - 66179D/37
- SWIF 30.09.74 SWIFT & CO D12 =CA 1104-773
Eviscerated poultry carcass partially severed at joints - 22350X/12
- SYDL- 11.08.75 SYDLO INC D15 J01 =CA 1104-947
Sedimentation tank with horizontally reciprocable gantry - 10752Y/06
- SYNT 26.12.79 SYVA CO B04 D16 S03 =J5 6092-218
Detection of member of immunological pair in sample - 55423D/31
- TAKE 24.01.77 TAKEDA YAKUHI KOGY B04 D16 =GB 1597-662
Antitumour, antibacterial and antifungal copper contg. antibiotic 55430A/31
- TAKE 31.03.77 TAKEDA CHEM IND LTD B04 D16 =CA 1104-078
Antibiotics C-14919 E-1 and E-2 - 72694A/41
- TAKE/ 19.08.77 TAKEUCHI S D11 =CA 1104-878
Bread prodn. in kneading and baking oven - 16291B/09
- TAMA 18.12.79 TAMPELLA AB OY D17 =DE 3047-049
Continuous saccharification of plant material to obtain sugars 59094D/33
- TAMA 18.12.79 TAMPELLA AB OY D17 =J5 6092-800
Continuous saccharification of plant material to obtain sugars 59094D/33
- TATL 29.10.79 TATE & LYLE PATENT A97 D16 H01 (D13) =DK 8004-564
Recovering xanthan gum from aq. fermented broth - 36660D/21
- TATL 07.11.79 TALRES DEV NA NV B03 C02 D13 E13 (B07 C03) =J5 6092-757
Foodstuffs, etc., contg. iso:maltulose - 38545D/22
- TATL 19.12.79 TALRES DEV NA NV D25 E13 #J5 6093-800
Prodn. of sucrose ester surfactants - 48265D/27
- TATL 20.12.79 TALRES DEV NA NV B03 D13 E13 =J5 6092-898
Tri:chloro-tri:de:oxy-galacto:sucrose prodn. - 48270D/27
- TATL 26.02.80 TATE & LYLE LTD D16 (D17) =EP --34-933
Immobilised enzymes in gel layers on inert support - 64646D/36
- TEIJ 28.12.79 TEIJIN KK A88 D15 J01 (A35) =J5 6095-304
Crosslinked semipermeable membrane prodn. - 51989D/29
- *TEKH= 19.06.79 TEKHENERGOKHIMPROM C03 D13 (C04) *SU -789-390
Wet-process phosphoric acid prodn. - 67285D/37
- *TEMI- 27.06.74 INST TECH MIKROBIOL D13 (D12) *DD -148-854
Yeast- or bacterial protein fibre prodn. - 66122D/37
- TERE- 03.12.79 SOC ETUD TECH REALI D16 S03 =J5 6092-797
Measuring concn. of oxidisable or reducible substrate in soln. 44500D/25
- TESR- 05.11.79 INST TEHN SRPSKE AK D15 =DK 8003-037
Separation of sand and gravel from water - 36728D/21
- THOM/ 22.02.80 THOMA H A B04 C03 D16 S03 =EP --34-775
Homogeneous enzyme-mediated assay of ligands e.g. hormones 64326D/36
- THOR/ 20.08.79 THOREL J N B05 D21 =EP --34-595
Plaque detecting and treating dental compsns. - 00802D/02
- *TITM- 27.02.80 TITMUS EUROCON KONT A96 D22 E16 *DE 3007-397
Contact lens preservative and rinsing soln. - 66247D/37
- *TKEN 28.12.79 TAKENAKA KOMUTEN KK D15 L02 *J5 6095-399
Solidifying waste substance such as sludge - 67171D/37
- *TOAG 22.10.79 TOA GOSSEI CHEM IND LTD D13 E37 (E13 E14) *J5 6061-982
Compsn. for maintaining freshness of food - 66605D/37
- *TOLK/ 09.01.79 TOLKACHEV S P D25 E19 *SU -789-575
Removal of polishing compsns. from surfaces - 67440D/37
- TORA 25.05.77 TORAY IND INC A88 D15 E17 J01 (A11 E15) =J8 1035-497
Reverse osmosis membrane comprising cellulose deriv. - 08848B/05
- TOXN 26.10.79 TOYO JOZO KK B04 D16 =DK 8004-492
Acyl-coenzyme/A-oxidase prodn. for enzymatic analysis - 38393D/22
- *TOYJ 26.12.79 TOYO SODA MFG KK A88 D15 J01 (A26 A32) *J5 6091-814
Ultrafiltration membrane mfr. - 66645D/37
- *TOYJ 26.12.79 TOYO SODA MFG KK A88 D15 J01 (A26 A32) *J5 6091-815
Ultrafiltration membrane mfr. - 66646D/37
- *TRAC= 24.02.79 TRACTOR WKS DES AGRIC MA D15 J01 *SU -791-610
Effluent cleaning filter - 67615D/37
- TRIB/ 04.02.80 TRIBBLE T C03 D13 E17 (D22) =FR 2474-832
Animal feed preservative contg. pyroligneous acid - 59152D/33
- TRIV- 14.08.75 TRI/VALLEY GROWERS D13 =CA 1104-236
Inspecting pitted peach halves for pit fragments - 39649Y/22
- *UBEI 27.12.79 UBE INDUSTRIES KK A97 C03 D25 *J5 6092-999
Liq. detergent for kitchen use - 66892D/37
- *UCOA= 04.11.78 UKR COAL TAR INST D15 G04 *SU -789-431
Solvent for removing heat exchanger scale - 67313D/37

25.12.79 UENO SEIYAKU OYO KE D12 E17 (E36) *J5 6092-733
 pat preservative and preparing meat prod - 66818D/37
 = 27.11.78 UFA PETRO PROC WKS D15 E14 H05 *SU -789-400
 enol removal, from aq. petroleum and solid fuel processing waste -
 291D/37
 = 14.09.78 UGLICH BUTTER CHEES D16 (D13) *SU -789-579
 odn. of lactic bacteria for cheese-making - 67444D/37
 = 18.09.78 UGLICH BUTTER CHEES D16 (D13) *SU -789-577
 lactic strain Streptococcus cremoris 55K 2-2-2 - 67442D/37
 = 19.02.79 UGLICH BUTTER CHEES D16 *SU -789-580
 nutrient medium for bifido-bacteria - 67445D/37
 = 06.04.79 UGLICH BUTTER CHEES D13 S03 *SU -789-748
 determn. of ease of melting of cheese - 67538D/37
 C 08.02.77 UNION CARBIDE CORP D15 =GB 1597-395
 Waste water sludge decomposition - 59116A/33
 C 10.02.77 UNION CARBIDE CORP A96 D21 (A25 A26) =CA 1104-936
 improved antiperspirant stick compsns. - 60328D/33
 C 07.08.79 UNION CARBIDE CORP A96 B04 D21 =ZA 8004-667
 compsn. for treating pseudofolliculitis - 15952D/10
 IL 23.02.77 UNILEVER NV D12 =GB 1597-373
 Uniform meat prod. prepn. from meat pieces - 63784A/36
 IL 26.04.77 UNILEVER NV D21 E33 =GB 1597-497
 Antiperspirant soln. or solid complex - 80479A/45
 IL 26.04.77 UNILEVER NV D21 E33 =GB 1597-498
 Antiperspirant cpd. prepn. - 80480A/45
 IL 07.12.77 UNILEVER LTD B06 D21 E34 (E33) =CA 1104-938
 Anticaries tooth-paste contg. sodium mono:fluorophosphate - 44416B/24
 IL 01.12.78 UNILEVER LTD D13 =ZA 7906-515
 Marzipan substitute resisting blooming on storage - 43690C/25
 IL 07.12.78 UNILEVER LTD D13 =ZA 7906-622
 Ambient stable, starch-contg. soup, gravy, etc. concentrate - 46653C/27
 IL 20.12.78 UNILEVER LTD D13 E37 =ZA 7906-868
 Margarine with reduced tendency to spattering - 49733C/28
 IL 06.07.79 UNILEVER NV D25 E16 =PT --71-502
 Particulate bleaching compsns., esp. washing powders - 05715D/05
 IL 07.02.80 UNILEVER NV D24 E12 H07 =BR 8100-629
 Alkali metal carboxylate prodn. from acid or fat - 62653D/35
 IL 07.02.80 UNILEVER NV D13 =BR 8100-633
 Tri:glyceride compsn. for replacing cocoa butter - 62665D/35
 IL 07.02.80 UNILEVER NV D25 E16 =BR 8100-635
 Cleaning and depositing perfume on surfaces - 62654D/35
 SDC 12.04.77 US SEC OF COMMERCE A87 D22 E12 F06 =CA 1104-752
 Zirconyl acetate complexes with peroxide(s) - 70657A/39
 SDC 03.06.77 US SEC OF COMMERCE D13 =GB 1597-550
 Precooked potatoes for supply to restaurants etc. - 87825A/49
 SDC 29.06.77 US SEC OF COMMERCE A11 D13 F09 G03 (D16 D17) =CA
 04-959
 Retrogradation-resistant starch prepn. - 80020A/44
 SHA/ 20.12.78 USHAKOV V A D15 T06 *SU -789-432
 Automated aq. effluent treatment plant - 67314D/37
 SSA 10.12.79 US SEC OF THE ARMY B04 D16 *US 4285-936
 Polysaccharide antigen from Pseudomonas aeruginosa slime - 67857D/37
 WAT= 05.12.78 UKR WATER ENG INST D15 F07 *SU -789-435
 Purificn. of aq. waste from prodn. of rolled felt - 67317D/37
 YDE- 21.09.79 UNIV OF DELAWARE A11 D22 (A96) *US 4286-087
 Friable, dispersible microcrystalline chitin powder prepn. - 67922D/37
 YGE- 26.02.80 RIJKSUNIV GENT D16 E17 =EP --34-667
 Methane gas prodn. by fermentation - 64204C/37
 YPA- 29.10.79 UNIVERSITY PATENTS B04 D16 K08 =J5 6095-119
 Antibody labelled with technetium-99m - 34792D/20
 JYQU- 16.03.79 QUEENS UNIVERSITY C03 D13 (D16) *CA 1104-079
 Prodn. of microbial protein with comminuted tree bark - 66114D/37

VELW 14.12.79 VEB LEUNA-WERK W ULBRICH A96 D22 F07 *DD -148-855
 Nappy pant having flexible sealing insert - 66123D/37
 VERI/ 12.04.78 VERIV J D13 #CA 1103-985
 Diced hot banana peppers prodn. - 73555B/40
 VERT/ 04.04.79 VERTALS D15 J07 *CS 7902-281
 Waste liq. oxygen degrading system - D/37
 VETE= 04.10.78 VETERINARY HYGIENE D22 S05 *SU -789-118
 Medical and veterinary bactericidal spray air disinfection - 67270D/37
 VETE= 29.10.79 VETERINARY PREPNS B04 C03 D16 =DK 8004-538
 Live Newcastle disease virus vaccine - 34654D/20
 VICS 28.02.80 VICKERS LTD D13 *GB 2070-449
 Milk homogenisation by passing between ball and seat - 66506D/37
 VIES/ 18.07.78 VIESTURE Z A B05 D16 E17 (D13 D21) *SU -789-581
 Prodn. of di:oxy-acetone by culturing Acetobacter suboxydans -
 67446D/37
 VIGN/ 31.01.80 VIGNOLLES J A97 D25 *FR 2475-060
 Cleaning prod. contg. corn sweepings, amine surfactant and solvent -
 66456D/37
 VOLG= 10.11.78 VOLGODONSK SURFACE D15 E17 *SU -789-415
 Concn. of sulphate effluent from synthetic fatty acid prodn. - 67301D/37
 VOLG= 05.01.79 VOLGODONSK SURFACE D15 E17 *SU -789-430
 Biochemical purificn. of synthetic fat substitutes mfr. aq. wastes -
 67312D/37

WASS- 16.10.78 INST WASSERWIRTSCHA D15 J01 M24 =DD -148-859
 Cleaning membrane filter systems - 43636C/25
 *WASS- 04.02.80 VEB WASSERVERSOR AB D15 *DD -148-925
 Surface sand in seepage tank - 66151D/37
 *WASU 22.09.78 KHARK WATER SUPPLY D15 (D25) *SU -789-406
 Removal of surfactants from aq. effluents - 67295D/37
 *WASU 15.01.79 WATER SUPPLY HYDROGEOL D15 T06 *SU -789-439
 Sewage settling tank sludge discharge control appts. - 67320D/37
 *WASU 18.01.79 TASHK WATER SUPPLY D15 *SU -789-429
 Biological purificn. of aq. waste - 67311D/37
 *WASU 14.02.79 WATER SUPPLY HYDROGEOL D15 J04 T06 *SU -789-
 418
 Acid-alkali aq. effluent neutralisation control appts. - 67304D/37
 *WASU 14.02.79 WATER SUPPLY HYDROGEOL D15 T06 *SU -789-419
 Aq. effluent neutralisation control appts. - 67305D/37
 *WATE= 15.09.78 WATER SUPPLY PURIFI D15 *SU -791-622
 Sewage cleaning installation - 67619D/37
 *WATE= 20.11.78 WATER PURIF STORE D15 *SU -789-410
 Purificn. of aq. effluent - 67296D/37
 *WATE= 24.02.79 WATER CONSERVATION D15 J01 *SU -791-610
 Effluent cleaning filter - 67615D/37
 WELL 30.11.78 WELLCOME FOUNDATION LTD B04 C03 D16 =ZA 7906-
 476
 Attenuated feline infectious peritonitis virus and vaccine - 41897C/24
 WELL 30.11.78 WELLCOME FOUNDATION LTD B04 C03 D16 =ZA 7906-
 477
 Inactivated feline infectious peritonitis vaccine prodn. - 41898C/24
 WENG- 06.11.79 WENGER MFG D17 E13 (D16) =US 4286-058
 Prodn. of sugars from starch-bearing materials - 38538D/22
 *WESS 04.03.80 WESTFALIA SEPARATOR AG D13 (D16) *PT --68-622
 Machine continuously sepg. grape pulp from skin and pips - D/37
 *WIDM- 27.02.80 WIDMER & ERNST AG D13 *GB 2070-411
 Shelling nuts esp. cashew nuts by cutting longitudinal grooves -
 66501D/37
 WILL/ 22.01.80 WILLSEY CH D13 =SE 8100-193
 Egg breaking and contents separating machine - 55584D/31
 WOOD- 11.11.77 WOOD-SLIMP GMBH C03 D22 E36 F09 =CA 1103-856
 Wood protection against moisture-induced decay - 18077B/10
 WOOD- 02.06.78 WOODSTONE FOODS LTD B05 D13 F09 (D17) =CA
 1104-871
 Recovering protein and starch prods. from vegetable seeds - 89676B/50

YAMA 25.12.75 YAMANOUCHI PHARM KK B02 D16 =J8 1035-159
 (7)-Methoxy cephalosporins fermentative prodn. - 29215Y/17
 *YAMA/ 26.12.79 YAMADA H D16 *J5 6092-790
 Sarcosine:oxidase - 66827D/37
 YAWA 05.06.73 NIPPON STEEL CORP D15 E31 M24 =J8 1035-616
 Recovery of iron from weakly acidic waste water - 33270W/20
 YEDA 06.06.76 YEDA RES & DEV CO LTD C03 D13 E17 =J8 1035-155
 Production of glycerine and protein prod. - 07567A/04

ZAPL/ 02.01.80 ZAPLETAL V D13 J04 =CS 8000-005
 Nickel-based catalyst e.g. for hydrogenating vegetable oils - 52130D/29

F	BD	Q00+	W30+	Y26+	Q01+	Q01	Q01	R16	R22	R43	S04	S49	C32+	C32+	D37+
817-965	Q00+	895-063	W30+	020-469	Y26+	801-536	Q01+	725-793	Q01	827-708	Q01	815-802	Q01	485-667	R16
487-840	R22	595-382	R43	1558-690	S04	257-190	S49	026-131	C32+	026-132	C32+	035-664	D37+		
1035-616	D37	66007-W	ADJ	J5 2254-355	W40	J5 0090-579	X05	US 4025-439	Y22	J5 4015-478	B11+	J8 1035-490	D37+		
76464-W	D	J5 0077-586	W46	US 4013-512	Y13	J8 1035-438	D37								
12172-X	DE	J5 0103-508	X07	J5 5027-200	C15	J8 1035-715	D37								
22350-X	D	US 3942-222	X12	CA 1104-773	D37										
25198-X	BDE	J5 1019-779	X14	J8 1035-196	D37										
60737-X	D	J5 1073-184	X32+	J8 1001-074	D06+	J4 7043-282	D37								
84864-X	D	US 3988-436	X45	NL 7505-930	X50+	ZA 7605-871	Y43+	J5 1133-434	Y01+	FR 2367-485	A28+	IL -50-610	C35+	CA 1085-302	C40+
10752-Y	DJ	US 4005-019	Y06+	CA 1074-711	C15	CA 1104-947	D37								
16513-Y	D	BE -847-853	Y10	NL 7612-476	Y21	DE 2650-196	Y21	US 4029-098	Y25	DK 7604-666	Y30	FR 2330-340	Y32	BR 7607-428	Y41
19287-Y	ABD	J5 2015-888	Y11	J8 1035-153	D37										
26299-Y	D	J5 2028-988	Y15	DE 2708-112	A36+	FR 2381-825	A48+	US 4106-988	B08+	DS 2708-112	B16+	GB 1557-414	B50+	SU -786-916	D35+
29215-Y	BD	BE -849-763	Y17+	NL 7614-279	Y28+	DE 2657-599	Y28+	J5 2079-081	Y33	NO 7604-350	Y33+	SE 7614-516	Y33+	DK 7605-797	Y37+
30284-A	BD	BE -862-082	A17	DE 2755-847	A27	SE 7714-727	A32	J5 3086-046	A35	DK 7705-786	A35				
30284-A	BD	BE -862-082	A17	DE 2755-847	A27	SE 7714-727	A32	J5 3086-046	A35	DK 7705-786	A35				
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104-870 D37		FI 8002-091 D13	GB 2055-581 D11+	J5 6095-309 D37	J5 6063-996 D29	DE 2944-623 D23	
	05715-D DE	BR 8008-729 D20	ZA 8004-174 D37+		DK 8004-584 D37+	HU H002-624 D24	44299-D D
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035-437 D37	FI 8002-119 D13	J5 6022-728 D17	DK 8003-656 D17	BR 8008-047 D29+	34792-D BDK	US 4286-058 D37	NL 7908-687 D29
	FR 2460-997 D17	ZA 8004-632 D37	J5 6085-254 D35	NL 8006-642 D29+	EP --28-092 D20		J5 6092-823 D37
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1285-468 D37+	PT --71-502 D37	GB 2053-718 D07+	19722-D D	FR 2471-213 D32+	GB 2066-639 D29+	NO 8003-312 D26	US 4284-512 D36
		EP --23-781 D08+	EP --24-790 D12	PT --72-171 D32+	J5 6092-757 D37	J5 6092-757 D37	J5 6095-344 D37
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	DE 3026-425 D06		ZA 8003-655 D37	J5 6094-324 D37	GB 2063-254 D23		
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8004-838 D22	J5 6059-793 D28	12171-D ADF	J5 6095-110 D37	BR 8007-952 D29	PT --71-958 D20	BE -887-699 D37+	FR 2470-799 D31
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		BR 8004-654 D10+	21390-D D	NL 8006-622 D32	GB 2061-728 D21	40238-D D	
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8004-665 D37	DK 8003-856 D31+	DE 3027-944 D09		NO 8003-013 D24	36692-D D	FR 2470-596 D31	GB 2066-044 D28
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4238-510 D01	DE 2926-543 D05	J5 6020-095 D16	ZA 8004-080 D37+			BE -886-372 D24	J5 6092-743 D37
8003-927 D37+	PT --71-466 D02	FR 2461-517 D18		34205-D DJ	36705-D BDE	SE 8008-333 D29	46001-D AD
72-D BD	WP 8100-041 D06	PT --71-584 D37	22370-D ABD	US 4263-104 D19	EP --28-525 D21	NL 8006-460 D29	BE -886-624 D26+
--884-850 D02	NO 8001-892 D08	14170-D AD	J5 6011-792 D13	GB 2064-131 D24	NO 8003-246 D25	J5 6092-813 D37	GB 2065-177 D26+
--71-709 D10	DK 8002-801 D10	EP --24-056 D09	J8 1035-436 D37	FR 2473-719 D35	DK 8004-536 D37		NL 8006-753 D32+
8100-513 D12	FI 8002-065 D13	DE 2932-823 D12	23192-D DM	DE 3042-504 D37	36715-D BD	42127-D ABD	FR 2471-779 D33+
2463-613 D21	EP --25-479 D14	J5 6092-804 D37	US 4255-192 D13+		EP --28-563 D21+	BE -887-315 D24	J5 6092-815 D37+
8101-325 D31	HU H002-610 D21	14695-D ADF	GB 2065-701 D27	34654-D BCD	DK 8004-558 D37+	GB 2068-229 D33	DE 3046-964 D37+
--34-595 D37	BR 8008-771 D24	J5 5165-117 D09	BR 8008-126 D30	DE 3034-238 D20		BR 8100-386 D36	46150-D ABD
	ZA 8003-906 D37	J8 1035-495 D37	FR 2472-027 D33	GB 2062-461 D22	36718-D BD	FR 2474-862 D37	DE 2950-381 D26
18-D DE	06053-D AD		J5 6093-839 D37	NL 8005-577 D25	EP --28-567 D21	PT --72-425 D37	EP --30-718 D27
--21-581 D03	EP --22-308 D05	15516-D D	23865-D D	US 4279-893 D32	J5 6079-625 D33		J5 6092-798 D37
2051-162 D03+	US 4285-071 D37	US 4250-198 D09	EP --25-700 D14	DK 8004-538 D37	DK 8004-622 D37	42128-D BD	46254-D AD
8001-570 D04		CA 1103-981 D37+	US 4285-352 D37			BE -887-316 D24	EP --30-393 D26
8003-248 D04	06168-D CDEG			34675-D ABD	36728-D D	GB 2068-230 D33	J5 6068-392 D30
8002-322 D07	EP --22-551 D05	15576-D DE	23876-D BD	DE 3039-540 D20+	EP --28-586 D21	BR 8100-514 D37	DK 8004-530 D37
4282-109 D34	DE 2928-305 D07	US 4250-338 D09	EP --25-722 D14+	BR 8006-992 D21	BR 8005-410 D23	PT --72-424 D37	
8002-871 D37	J5 6018-961 D16	GB 2065-108 D26	NO 8002-751 D19	GB 2063-283 D23+	J5 6067-510 D30		46255-D DE
	PT --71-543 D20	US 4285-349 D37	FI 8002-917 D26+	BE -885-895 D25+	HU T020-397 D33	44074-D AD	EP --30-394 D26
27-D BD	ZA 8004-189 D37		J5 6095-118 D37+	NL 8005-990 D25+	DK 8003-037 D37	BE -886-415 D25	DE 2949-671 D26
--884-012 D04		15923-D ADG	24674-D DE	SE 8007-656 D26+		SE 8008-144 D29	J5 6092-248 D37
--22-242 D05	07651-D BD	EP --24-107 D10	NL 8005-094 D14	FR 2468-355 D28+	38195-D ADF	NL 8006-498 D29	
3023-627 D05	US 4244-865 D05	J5 6022-727 D17	DE 3034-040 D15	J5 6089-252 D36	BE -887-063 D22	FR 2470-800 D31	46276-D ABCD
--71-487 D06	FR 2471-411 D32	ZA 8004-631 D37	GB 2058-786 D16	DK 8004-652 D37+	DE 3001-147 D30	DE 3044-737 D37	EP --30-435 D26
8100-114 D06	DE 3045-430 D37	15952-D ABD	J5 6046-881 D25		FR 2473-568 D35		J5 6092-956 D37
2055-382 D10		EP --24-161 D10	FR 2475-045 D37	34676-D ABD	NL 8100-129 D36	44083-D D	46284-D BD
8002-030 D13	08152-D ADE	BR 8004-890 D22		DE 3039-542 D20	SE 8100-010 D36	BE -886-465 D25	EP --30-449 D26
2460-330 D16	EP --23-040 D06	ZA 8004-667 D37	25455-D D	GB 2062-663 D22	GB 2070-656 D37	GB 2064-973 D26	NO 8003-659 D30
6021-596 D17	DE 2929-813 D06		BE -886-408 D15	SE 8007-398 D24		DE 3045-595 D37	FI 8003-755 D34
8100-608 D20	J5 6049-155 D25	17515-D ADF	GB 2063-885 D24	FR 2467-873 D27	38393-D BD		J5 6095-120 D37
8008-736 D20	ZA 8004-393 D37	BE -886-001 D11	NL 8006-510 D29	J5 6068-457 D30	DE 3040-045 D22	44105-D D	46285-D BD
8003-600 D37	09665-D DE	DE 3040-964 D21	FR 2473-550 D35	DK 8004-488 D37	GB 2064-544 D25	BE -887-378 D25	EP --30-450 D26
	US 4246-347 D06+	NO 8003-165 D24	DE 3044-356 D37	34720-D DE	FR 2468-647 D28	EP --33-709 D34	NO 8003-658 D30
37-D AD	EP --28-136 D20	NL 8005-984 D25		EP --27-834 D20	J5 6061-991 D28	FR 2475-223 D37	FI 8003-758 D34
3019-539 D04	NO 8002-769 D24	US 4270-977 D25		EP --28-044 D20	DK 8004-492 D37		J5 6095-121 D37
8003-713 D05	J5 6061-995 D30	GB 2065-187 D26		PT --71-880 D20			
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--148-857 D37	US 4284-723 D36	J5 6085-495 D35		DK 8004-486 D37			
	DK 8003-998 D37						

46417-D

46417-D D	50011-D AD	56953-D D	60791-D BD	66086-D D	66254-D D	66435-D D	66661-D AD
GB 2065-137 D26	EP --31-005 D28	US 4278-936 D31	EP --33-686 D34	BE -888-562 D37	DE 3007-545 D37	FR 2474-882 D37	J5 6091-900
FR 2471-192 D32	DE 2951-087 D29	GB 2068-544 D33	FR 2474-828 D37				
NL 8006-772 D32	J5 6093-703 D37	FR 2475-227 D37		66090-D D	66257-D D	66453-D ADG	66705-D DE
FI 8003-837 D34			60794-D BCD	BE -888-592 D37	DE 3012-198 D37	FR 2475-057 D37	J5 6092-113
DE 3045-179 D36	50021-D BDJ	56983-D AD	EP --33-694 D34				
J5 6092-791 D37	EP --31-051 D28	BE -887-219 D32	FR 2474-827 D37	66091-D D	66258-D ABD	66456-D AD	66716-D DL
	NO 8003-552 D31	GB 2068-031 D32		BE -888-593 D37	DE 3027-929 D37	FR 2475-060 D37	J5 6092-145
46424-D ADH	FI 8003-808 D34	BR 8100-183 D34	60796-D D				
GB 2065-150 D26	J5 6092-799 D37	FR 2473-883 D36	EP --33-702 D34	66092-D AD	66264-D D	66475-D D	66757-D D
NL 8006-336 D29		NL 8100-258 D36	FR 2475-044 D37	BE -888-598 D37	DE 3042-266 D37	GB 1597-354 D37	J5 6092-208
J5 6090-831 D36	50056-D D	SE 8100-340 D37					
DE 3044-925 D37	EP --31-126 D28		60837-D BD	66093-D AD	66275-D DE	66476-D DEF	66764-D BD
	DE 2951-411 D28	58792-D ADF	FR 2472-610 D34+	BE -888-599 D37	DE 3046-898 D37	GB 1597-357 D37	J5 6092-217
47730-D BD	BR 8008-357 D31	BE -887-280 D33	J5 6092-794 D37				
US 4272-512 D26	J5 6091-818 D37	GB 2068-429 D33		66094-D BCDE	66282-D DE	66481-D D	66783-D DE
GB 2068-231 D33		FR 2475-053 D37	60887-D DJ	BE -888-601 D37	EP --34-649 D37	GB 1597-464 D37	J5 6092-247
FR 2474-864 D37	50111-D CDE		GB 2068-760 D34				
	EP --31-257 D28	58923-D ADE	FR 2474-017 D36	66106-D CD	66283-D DE	66483-D ADEF	66806-D BD
47823-D D	BR 8008-501 D33	DE 3003-647 D33+	NL 8100-223 D36	CA 1103-978 D37	EP --34-650 D37	GB 1597-473 D37	J5 6092-441
BE -886-707 D27+	J5 6092-272 D37	GB 2070-632 D37	NO 8100-111 D37				
GB 2066-071 D28+			SE 8100-303 D37	66107-D D	66285-D DJM	66491-D AD	66807-D BD
FR 2471-775 D33	50114-D DJM	58952-D ADJ		CA 1103-984 D37	EP --34-661 D37	GB 1597-799 D37	J5 6092-445
J5 6092-805 D37+	EP --31-267 D28	DE 3030-249 D33	60888-D DJ				
	FR 2472-037 D33	ZA 8007-376 D37	GB 2068-761 D34	66114-D CD	66292-D D	66496-D D	66808-D BD
47836-D AD	J5 6091-886 D37	FR 2475-061 D37	FR 2475-031 D37	CA 1104-079 D37	EP --34-675 D37	GB 1597-845 D37+	J5 6092-446
BE -886-779 D27							
GB 2065-472 D27	50256-D CD	59006-D D	60948-D AD	66118-D ACD	66299-D CDEF	66498-D AD	66818-D DE
BR 8008-458 D32	GB 2066-231 D28+	EP --33-180 D33	GB 2068-974 D34	CA 1104-926 D37	EP --34-684 D37	GB 2070-407 D37	J5 6092-733
NL 8006-921 D32	CS 7606-994 C28	NL 8000-484 D36	FR 2475-062 D37				
FR 2471-776 D33	NL 7909-266 D32+	NO 8100-230 D37		66122-D D	66301-D DE	66499-D D	66819-D D
J5 6092-806 D37	DE 2952-794 D32+		60963-D DE	DD -148-854 D37	EP --34-693 D37	GB 2070-408 D37+	J5 6092-740
DE 3048-075 D37	J5 6091-896 D37+	59059-D ACD	GB 2069-000 D34+				
	FR 2474-901 D37+	EP --33-291 D33	BR 8100-598 D37	66123-D ADF	66302-D DE	66500-D D	66820-D CD
47837-D ADF		FR 2474-278 D36		DD -148-855 D37	EP --34-694 D37	GB 2070-410 D37+	J5 6092-746
BE -886-780 D27	50295-D D	BR 8100-480 D37	62289-D BD				
GB 2066-830 D29	GB 2066-304 D28+		WP 8102-105 D34+	66124-D CDHJ	66303-D DE	66501-D D	66821-D BDE
BR 8008-412 D32	SE 8008-115 D28+	59087-D D	US 4286-056 D37	DD -148-860 D37	EP --34-695 D37	GB 2070-411 D37	J5 6092-784
NL 8006-920 D32	FI 8003-603 D34+	FR 2471-952 D33					
FR 2471-996 D33	DE 3043-518 D37+	BR 8008-108 D35	62448-D DJ	66138-D D	66304-D DE	66504-D CD	66822-D DE
DE 3048-076 D37		NO 8003-760 D31	DE 3005-115 D35	DD -148-889 D37	EP --34-696 D37	GB 2070-430 D37	J5 6092-785
	51989-D ADJ	GB 2068-354 D33	EP --34-739 D37				
47838-D AD	EP --31-730 D29	J5 6091-892 D37		66139-D BD	66310-D ADEF	66506-D D	66823-D DE
BE -886-781 D27	J5 6095-304 D37		62579-D BD	DD -148-890 D37	EP --34-724 D37	GB 2070-449 D37+	J5 6092-786
GB 2066-663 D29		59094-D D	EP --33-840 D35+				
BR 8008-459 D32	52130-D DJ	FR 2472-016 D33	NO 8100-114 D36+	66140-D D	66320-D BD	66521-D AD	66824-D BD
NL 8006-922 D32	GB 2066-690 D29+	SE 8008-673 D33	PT --72-348 D37+	DD -148-891 D37	EP --34-759 D37	GB 2070-501 D37	J5 6092-787
FR 2471-777 D33	NO 8003-956 D34+	NO 8003-781 D32					
J5 6092-807 D37	NL 8007-105 D34+	J5 6092-800 D37	62597-D DE	66148-D D	66355-D BDE	66530-D D	66825-D BD
	FR 2472-952 D35+	DE 3047-049 D37	EP --33-903 D35	DD -148-922 D37	EP --34-846 D37+	GB 2070-580 D37	J5 6092-788
47839-D ADF	CS 8000-005 D37		DE 3004-825 D35				
BE -886-782 D27		59152-D CDE	BR 8100-744 D37	66149-D D	66364-D AD	66558-D ADG	66826-D BD
GB 2066-276 D28	55330-D ABD	GB 2068-232 D33		DD -148-923 D37	EP --34-861 D37	GB 2070-631 D37+	J5 6092-789
BR 8008-455 D32	DE 3001-878 D31	DE 3040-728 D34	62622-D D				
NL 8006-919 D32	EP --34-692 D37	FR 2474-832 D37	EP --33-987 D35	66150-D D	66365-D D	66565-D BCD	66827-D D
FR 2471-997 D33			BR 8100-543 D37	DD -148-924 D37	EP --34-869 D37	GB 2070-641 D37	J5 6092-790
J5 6093-734 D37	55418-D BD	60328-D AD					
	EP --32-270 D31	US 4280-994 D33	62653-D DEH	66151-D D	66368-D CD	66574-D ADE	66829-D BD
48041-D DE	NL 8000-173 D34	CA 1104-936 D37	EP --34-047 D35+	DD -148-925 D37	EP --34-872 D37	GB 2070-657 D37+	J5 6092-793
EP --30-680 D27	PT --72-329 D37		BR 8100-629 D37+				
DE 2950-032 D28		60442-D D		66154-D D	66370-D BDE	66590-D D	66830-D BDE
NO 8003-461 D31	55423-D BD	BE -887-396 D34	62654-D DE	DD -148-944 D37	EP --34-876 D37+	GB 2070-751 D37	J5 6092-795
FI 8003-587 D34	EP --32-286 D31	GB 2068-929 D34	EP --34-048 D35+		NO 8100-171 D37+		
J5 6092-814 D37	BR 8007-330 D30	FR 2475-030 D37	BR 8100-635 D37+	66156-D D	66392-D AD	66594-D BD	66831-D BDE
	J5 6092-218 D37			DD -148-946 D37	EP --34-920 D37+	GB 2070-767 D37	J5 6092-796
48100-D BD		60596-D D	62665-D D				
EP --30-814 D27	55584-D D	DE 3004-226 D34	EP --34-065 D35	66158-D BD	66393-D DE	66604-D D	66834-D AD
NO 8003-660 D30	GB 2067-391 D31	FR 2474-884 D37	BR 8100-633 D37	DD -148-955 D37	EP --34-922 D37	GB 2070-900 D37	J5 6092-808
FI 8003-756 D34	FR 2473-869 D36						
J5 6095-122 D37	NL 8006-726 D36	60609-D D	62670-D BD	66176-D D	66394-D BDE	66605-D DE	66835-D AD
	SE 8100-193 D37	DE 3004-294 D34	EP --34-083 D35	DE 2952-708 D37	EP --34-925 D37	J5 6061-982 D37	J5 6092-810
48101-D BD		FR 2475-028 D37	FR 2474-829 D37		GB 2070-599 D37		
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FI 8003-757 D34	BE -887-176 D32	DE 3004-661 D34	DE 3006-709 D36		66422-D D		
J5 6095-123 D37	BR 8100-320 D36	EP --33-928 D35	EP --34-775 D37	66200-D D	FR 2474-822 D37	66645-D ADJ	66892-D AC
	NL 8100-284 D36	BR 8100-719 D37		DE 3006-659 D37		J5 6091-814 D37	J5 6092-999
48103-D ADF	NO 8100-181 D37		64373-D BD		66423-D D		
EP --30-822 D27	SE 8100-293 D37	60708-D BD	EP --34-307 D36	66220-D DEF	FR 2474-823 D37	66646-D ADJ	66899-D AB
J5 6093-733 D37		EP --33-462 D34	BE -887-529 D36	DE 3007-077 D37		J5 6091-815 D37	J5 6093-046
	55627-D ADE	DE 3021-259 D34	DE 3005-897 D37		66424-D D		
48129-D BD	GB 2067-554 D31	BR 8100-648 D37		66228-D D	FR 2474-825 D37	66649-D ADJ	66943-D AC
EP --30-885 D27	FR 2472-558 D34		64412-D D	DE 3007-143 D37		J5 6091-836 D37	J5 6093-741
FR 2470-794 D31	J5 6092-252 D37	60776-D D	EP --34-429 D36		66425-D D		
J5 6095-196 D37		EP --33-635 D34	GB 2070-421 D37+	66243-D CD	FR 2474-830 D37	66650-D AD	66944-D AC
	55639-D ACD	PT --72-375 D37		DE 3007-383 D37		J5 6091-838 D37	J5 6093-742
48265-D DE	GB 2067-573 D31		64698-D D		66426-D D		
GB 2065-634 D27+	FR 2474-036 D36	60786-D D	GB 2070-217 D36	66246-D D	FR 2474-831 D37	66659-D D	66980-D DM
NO 8002-549 D32	US 4285-986 D37	EP --33-670 D34	FR 2474-826 D37	DE 3007-396 D37		J5 6091-888 D37	J5 6093-840
J5 6093-800 D37+		FR 2474-816 D37			66429-D DE		
	55657-D DF		66081-D BDE	66247-D ADE	FR 2474-861 D37	66660-D D	67029-D AD
48270-D BDE	GB 2067-609 D31	60788-D D	BE -888-551 D37	DE 3007-397 D37		J5 6091-895 D37	J5 6094-322
GB 2065-648 D27+	FR 2473-853 D36	EP --33-681 D34			66430-D AD		
EP --31-651 D29	SE 8100-311 D37	FR 2474-889 D37			FR 2474-865 D37		
NO 8003-851 D32							
PT --72-208 D32							
J5 6092-898 D37							

D DEG 95-053 D37	67292-D D SU -789-401 D37	67441-D BD SU -789-576 D37	67630-D D SU -791-655 D37	67870-D D US 4285-976 D37
D D 95-054 D37	67293-D D SU -789-402 D37	67442-D D SU -789-577 D37	67668-D D US 4285-099 D37	67871-D D US 4285-978 D37 +
D AD 95-055 D37	67295-D D SU -789-406 D37	67443-D D SU -789-578 D37	67683-D DG US 4285-276 D37 +	67872-D D US 4285-979 D37 +
D DE 95-108 D37	67296-D D SU -789-410 D37	67444-D D SU -789-579 D37	67692-D AD US 4285-338 D37	67873-D D US 4285-980 D37 +
D ADE 95-109 D37	67297-D DM SU -789-411 D37	67445-D D SU -789-580 D37	67693-D D US 4285-342 D37	67874-D D US 4285-981 D37
D ABD 95-112 D37	67298-D D SU -789-412 D37	67446-D BDE SU -789-581 D37	67694-D DF US 4285-343 D37	67875-D DE US 4285-982 D37 +
D ABDE 95-124 D37 +	67299-D D SU -789-413 D37	67506-D DEF SU -789-643 D37	67695-D DE US 4285-349 D37 +	67876-D D US 4285-983 D37
D DE 95-141 D37	67301-D DE SU -789-415 D37	67510-D D SU -789-668 D37	67722-D D US 4285-490 D37	67877-D DE US 4285-984 D37 +
D DE 95-143 D37	67302-D D SU -789-416 D37	67518-D DEJ SU -789-697 D37	67743-D DG US 4285-688 D37	67878-D DE US 4285-985 D37
D BDE 95-182 D37 +	67303-D DEG SU -789-417 D37	67520-D D SU -789-706 D37	67744-D DE US 4285-689 D37	67886-D D US 4286-002 D37
D DJ 95-305 D37	67304-D DJ SU -789-418 D37	67526-D DJ SU -789-712 D37	67747-D DE US 4285-697 D37	67907-D ACDF US 4286-059 D37 +
D DJ 95-306 D37	67305-D D SU -789-419 D37	67538-D D SU -789-748 D37	67748-D D US 4285-698 D37	67908-D BD US 4286-061 D37 +
D DJ 95-307 D37	67306-D DH SU -789-420 D37	67546-D D SU -791-367 D37	67759-D D US 4285-719 D37 +	67909-D D US 4286-065 D37
D DJ 95-313 D37	67307-D DE SU -789-421 D37	67547-D D SU -791-369 D37	67768-D D US 4285-735 D37	67910-D D US 4286-066 D37
D DJ 95-314 D37	67308-D D SU -789-422 D37	67548-D D SU -791-372 D37	67773-D AD US 4285-747 D37 +	67921-D AD US 4286-082 D37 + J5 6091-837 D37
D DHJ 95-333 D37	67309-D D SU -789-426 D37	67552-D DJ SU -791-391 D37	67785-D D US 4285-774 D37	67922-D AD US 4286-087 D37
D DEM 95-390 D37	67310-D DE SU -789-427 D37	67614-D DHJ SU -791-609 D37	67786-D D US 4285-776 D37	67957-D CDE ZA 8003-336 D37 + ZA 8003-336 D26 +
D D 95-396 D37 +	67311-D D SU -789-429 D37	67615-D DJ SU -791-610 D37	67794-D DJ US 4285-792 D37	
D DL 95-399 D37	67312-D DE SU -789-430 D37	67616-D D SU -791-617 D37	67798-D DJ US 4285-796 D37	
D D 1031-115 D37 7043-282 D37	67313-D DG SU -789-431 D37	67617-D DJ SU -791-618 D37	67809-D DJ US 4285-819 D37	
D AD 1035-427 D37 0105-857 D37	67314-D D SU -789-432 D37	67619-D D SU -791-622 D37	67812-D ADE US 4285-826 D37	
D AD 1035-435 D37 0031-970 D37	67315-D ADH SU -789-433 D37	67620-D D SU -791-623 D37	67813-D D US 4285-832 D37	
D AD 1035-435 D37 0031-970 D37	67317-D DF SU -789-435 D37	67621-D D SU -791-624 D37	67818-D ADE US 4285-840 D37 +	
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-DAS	10 SEP 81	2,009,917 - 3,010,863
-PS	10 SEP 81	2,537,799 - 2,941,830
EUROPE		
-Unexamined	9 SEP 81	35,011 - 35,490
-Granted	9 SEP 81	00,087 - 16,935
FRANCE	14 AUG 81	2,475,347 - 2,475,842
UNITED KINGDOM	16 SEP 81	1,597,851 - 1,598,400
		2,070,901 - 2,071,470
HUNGARY	28 AUG 81	H002,658 - H002,666
		T020,473 - T020,731
JAPAN		
-Unexamined	—	47,002,618 - 55,129,921
	3 AUG - 9 AUG 81	56,095,501 - 56,099,000
-Examined	20 AUG - 26 AUG 81	81,035,801 - 81,036,840
NETHERLANDS	17 AUG 81	167,573 - 167,832
NORWAY	24 AUG 81	8,000,187 - 8,102,005
SWEDEN	31 AUG 81	8,000,629 - 8,102,276
SOVIET UNION	—	364,201 - 793,753
UNITED STATES		
-Reissues	1 SEP 81	Re30,725 - Re30,732
-Defensives	1 SEP 81	T101,001 - T101,004
-Patents	1 SEP 81	4,286,337 - 4,287,606
PCT	3 SEP 81	8,102,376 - 8,102,502

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Earliest Priority	Patent No
		Publication Date					IPC
MEDA-			A89		69369W/42	=US 3964-992	
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SE28.7.75)							
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)							
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26							

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NOTE TO SUBSCRIBERS

West German New Law Patentschriften are now being issued and will appear in this (D38) and future Derwent publication weeks. They have the country code DS and their number range overlaps that for the Auslegeschriften. Patentschriften (distinguished by PS at the end of the abstract) and Auslegeschriften (distinguished by DS at the end of the abstract) will appear together in numerical order, irrespective of their status.

Auslegeschriften which are based on granted EP specifications have neither DS nor PS at the end of the abstract. They are distinguished by their number range e.g. DS 286----, DS 296----, and by "Based on EPG-----" which appears immediately after the local filing information.

D1: FOOD; FERMENTATION

D11: BAKING

DEC 1981

A/★ D11 D/38 ★CS 8009-604
 o-thermal, conveyor-type bread oven heater
ERABEK V 31.12.80-CS-009604
 (0.06.81) A21b-01/14

R- D11 28843 A/16 =GB 1597-980
 hine for grooving automatically the tops of unbaked loaves -
 high speed blades cutting across loaves on conveyor to oven
OFRAPAIN LYON 04.10.77-FR-029735
 (6.09.81) *BE-861-674 A21c-11/12
 (2.77 as 052917 (006HM))

ad-making appts. includes notch-cutting units which operate
 ultaneously upon respective loaves advancing side-by-side on
 nveyor. Each unit has a knife which is moved along an
 ative path lengthwise of the conveyor to cut a loaf, and is
 rned along an offset parallel inoperative path.
 ecifically each cutter knife is on an endless chain with a
 om-run operative path, and a top-run inoperative return path
 h includes a knife-wetting felt. (8pp)

IO-★ D11 68433 D/38 ★GB 2070-908
 -docked fried dough crusts prodn. - by control of partial
 mination during frying with two mesh conveyor belts
ENO'S INC 04.03.80-US-127238
 (16.09.81) A21b-05/08
 (2.81 as 005916 (478HM))

-docked fried dough crusts are prepd. as follows: (a) a dough
 repd. contg. one or more leavening agents(I) but is handled so
 o minimise premature leavening reaction; (b) the dough is
 eted and cut into imperforate crust-sized pieces; (c) the
 erforate pieces are confined between reticular forms of a
 sh size to limit delamination and cooked in hot oil; (d) the
 sts are removed from the hot oil and rapidly cooled but are
 confined until the internal and external gas pressures
 ome equalised.

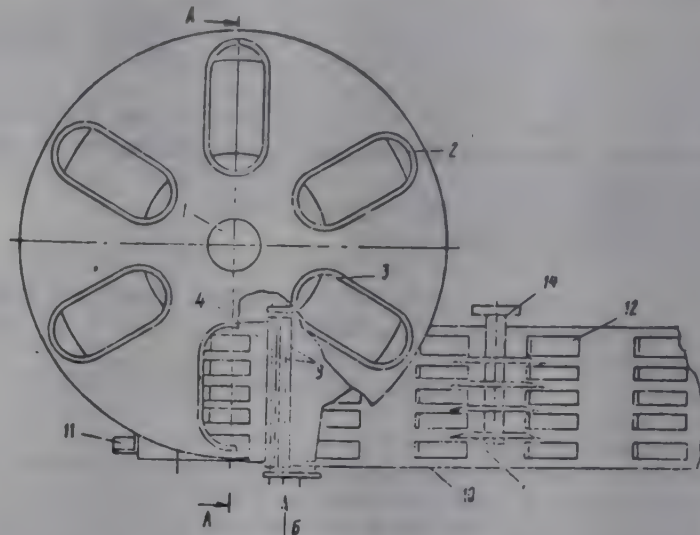
tep (a) (I) include time-responsive (pref. yeast) and H₂O-
 onspive (e.g. baking powder) agents. To prevent premature
 vening, dough is pref. kept at 80-90 deg.F prior to proofing, and
 10-160 deg.F/relative humidity 90-100% in a steam chamber
 ing proofing (to dough temp. 100 deg.F; vol. increased by
). A suitable dough contains 61% flour, 33% H₂O, 2.5% yeast,
 a total of 3.5% of salt, oil, chemical-(I) and conditioners.
 ethod affords a crust that has increased vol. for visual and
 e appeal, a relatively greaseless, crispy but tender texture,
 a fried flavour. The prod. is suitable for topping, freezing etc.
 timately for use e.g. as a pizza. (14pp)

KU/★ D11 68765 D/38 ★J5 6096-670
 ditive for improving taste and nutritive quality of boiled rice -
 nprises purified rice bran oil, beta cyclodextrin, edible
 tritin, vitamin/E and and water
FUKUMOTO S 28.12.79-JP-171968
 (04.08.81) A231-01/10
 (12.79 as 171968 (42WB))

ditive (I) is composed of purified rice bran-oil (II), beta-
 lodextrin (III), edible dextrin (IV), natural vitamin E (V) and
 ter (VI). Rice is mixed with (I) and then tempered.
 Pref. (I) is composed of 40% (II), 6% (III), 20% (IV), 1.2% (V) and
 8% (VI). (I) is diluted with water contg. enzyme and/or calcium
 , and then mixed with rice, so that the enzyme digests part of
 rice starch and the calcium ion is contained in rice as
 trition. The rice mixed with (I) is easily boiled, without being
 aked in water for 30 mins. - 1 hr. as usual.
 The addn. of (I) to rice before boiling makes the boiled rice rich
 flavour and nutrients, and improves its texture. (3pp)

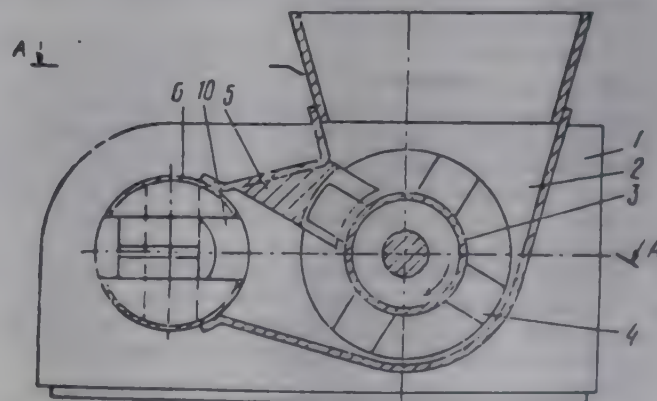
ME=★ D11 69536 D/38 ★SU-793-750
 ng-loaf cutting device - has additional disc cutters and floating
 nders for sepg. loaves
MINSK MEAT DAIRY 11.03.79-SU-737133
 P62 (D12) (07.01.81) B26d-04/28
 (03.79 as 737133 (822GW))
 e device can be used for cutting bread loaves and in the prodn.
 minced meat prods. It comprises a rotating hopper with
 npartments (2) for the loaves, support platform (3) in the form
 an open ring, disc blades (13), floating cylinders (9), and
 veyor (10) mounted under the support platform with stops (11).

The support platform is split, and the floating cylinders are
 located in it and connected to the platform by means of spindles
 and levers. The hopper compartments are the same distance
 from the centre. The disc blades are located between the stops
 and the conveyor has provision for adjusting the distance
 between the stops and support platform. The floating cylinders
 have a traverse restrictor. Bul. 1/7.1.81. (3pp Dwg.No.1)



KIKI=★ D11 69521 D/38 ★SU-793-547
 Dough proportionator during bread baking - has hopper and
 rotating pressing attachment with pusher rods which fill
 compartments in dividing head to make portions
KIEV KIEVKHLEBMASH 31.10.78-SU-680062
 Q31 (20.02.81) A21c-05/04 B65b-03/06
 (31.10.78 as 680062 (29MI))

Proportionator for floury pasty mass, during the baking of bread,
 has chamber (2) containing moving attachments (3) in the form of
 a cylinder with pusher rods (4) and a partition (5). Uniform
 loading on the mass is created together with the accuracy of the
 proportionation, and the quality of the mass is improved, as a
 result of a once-through treatment with reduced friction on the
 side walls of the chamber, by fixing the partition (5) firmly to the
 inner walls of the chamber. Each pusher rod is formed from a
 series of projections and the partition has slits for these to pass
 through. Flanges are fastened to the end surfaces of the delivery
 attachments (3), the flange radius equalling the distance from the
 centre axis to the edges of the pushers. Bul. 1/7.1.81. (3pp
 Dwg.No.1)



BENI- D11 10971 D/07 =US 4286-939
 Dough balling machine with adjustable ball shells - has
 mechanically adjusted rolling gully eliminating dough leakage
 completely
BENIER BV 16.07.79-NL-005535
 (01.09.81) *NL7905-535 +B29b-01/02
 (10.07.80 as 168391 (006JB))

Appts. for forming dough balls has an upright rotary rounding
 drum about which extends a spiral rounding trough of variable
 dimensions for rolling balls of varying size.

The bottom of the trough comprises adjacent frame-supported
 flat sections, while its wall, spaced from the drum, comprises
 corresponding sections having their bottom ends abutting the

bottom sections at all times, but with their upper regions movable in or out, specifically individually or by a drive common to all. (5pp)

JOUL/ D11 33679 B/18 = US 4287-215
Bran bread prepn. - from dough contg. protein-rich wheat flour and millstone-ground bran prepd. from protein-rich wheat
JOULIN G 21.10.77-FR-031711
(01.09.81) *DE2846-248 A21d-13/02
18.10.78 as 952586 (393PW)
Prodn. of bran bread comprises fermenting with yeast a dough based on wheat flour, bran and water and baking. The wheat flour comprises at least 12 (14) wt.% proteins. The bran is obtd. from the wheat flour ground (pref. dry) by a millstone and which,

after grinding, has been sieved to keep only the particles of 0.1 mm.

Pref. the wheat from which the bran is obtd. comprises ca. wt.% proteins and the wheat has been cultivated and conserved without chemical products.

The bread is pleasant to eat, easy to digest and has dietary properties which are partic. useful in the case of intestinal disorders. (2pp)

See Also

D23 J56065813

D12: MEAT; FISH PROCESSING

PHIM * D12 D/38 ★ BR 8101-011
Hydroxy-substd. heterocyclic carboxylate compsns. - used in smoking meat products
PHILIP MORRIS INC 20.02.80-US-122901
E13 P15 (25.08.81) A24b-03/12

EIRI/ * D12 68014 D/38 ★ CA 1105-663
Apparatus for squeezing roes from small fish - by passage through adjustable slit with water stream (NO 21.4.80)
EIRIKSSON T 25.09.78-NO-003237 (08.03.79-CA-323056)
(28.07.81) A22c-25
08.03.79 as 323056 (295BZ)

Roe is obtained from fish by passing the fish as a flowing stream to a slit dimensioned such that fish with roe do not pass through but fish without roe do. The fish are forced through the slit. Fish and intestines are separated from roe and water by sieving. The roe is finally separated from the water. Pref. the forcing through the slit is effected using a cylinder rotating towards the slit. The cylinder is covered with a flexible material which exerts a frictional force on the fish.

The device is particularly designed for squeezing the roe from small fish e.g. capelin and herring, the roe being more valuable than the fish itself which may subsequently be used for meal manufacture and animal fodder. (13pp)

LOUB/ * D12 68344 D/38 ★ FR 2475-359
Tool to open duster shells etc. - has approaching jaws of which one uses chisel edge to penetrate shell joint
LOUBEYRE G 11.02.80-FR-003214
(14.08.81) A22c-25
11.02.80 as 003214 (448HM)

Hand tool is for opening the shells of molluscs, esp. oysters. The tool comprises two opposed jaws between which the mollusc is placed. The jaws can be displaced towards each other by manually operated lever gearing offering a mechanical advantage. One jaw has a chisel-edged nose which penetrates between the edges of the mollusc shells and then urges them apart as the jaws approach each other.

The chisel edged nose pref. comprises two flat faces forming a dihedral with an included angle between 10 and 40 deg. The nose is pref. made up of two triangular blades, one face of each blade forming a face of the chisel edged nose. The jaws are pref. mounted on opposed extremities of a pair of levers crossing on a common pivot, scissors fashion. The jaw opposed to the chisel-edged nose pref. offers a serrated, concaved surface to grip the mollusc in opposition to the nose.

Used in opening oysters and other molluscs. The steel is opened easily and without fatigue. There is no danger of a cut hand as when opening with a knife. Opening is clean and the shell is not splintered so there is no danger of the consumer eating fragments of shell. (11pp)

UNIC D12 45822 A/26 = GB 1598-313
Turning flexible tubular skin, e.g. sausages inside-out - so that skin can be internally coated without risk of damage
UNION CARBIDE CORP 23.12.76-US-753817
A92 (16.09.81) *BE-862-205 D06g-03
22.12.77 as 053399 (006NS)

Flexible tubular food casing is humidified to at least 8 wt.% moisture level before shirring it to form a stick, through the bore of which one end of the casing is pulled to simultaneously invert and deshirr it. Pref. the casing is inflated and then flattened, while being inverted and deshirred as it leaves the stick bore, after which it is wound into a roll or re-formed into a shirred stick. Humidification pref. to 10-20 wt.% avoids casing damage during handling. (5pp)

JOHJ * D12 68434 D/38 ★ GB 2070-9
End closure for sausage casing - formed by twisting casing a invaginated cord produced into casing prior to compression
DEVRO INC 27.02.80-GB-006542 (27.02.81-GB-006176)
(16.09.81) A22c-13

27.02.81 as 006176 (295BZ)

A strand of sausage casing is closed at one end by a twisted end portion of the strand invaginated into the strand and axially compressed against the end wall of the strand.

The strand of sausage casing is supported on a tubular mandrel which has a piston axially slidable within it. An end of the strand is twisted into an axially extending cord which is advanced into the open end of the casing. An anvil is movable into and out of abutment with the casing to provide a compression surface in coaction with the piston to compress the invaginated cord into an end knot.

The end closure is applied to a shirred sausage casing e.g. collagen, prior to filling with an emulsion on a stuffing horn. (7pp)

KOLL/ * D12 D/38 ★ HU H002-
Appts. for producing axial wrinkles in plastics hose - partic. mfg. artificial sausage skins
KOLLROSS G 21.10.80-HU-002554
A32 (A97) (28.08.81) A22c-13/02

UNIC D12 47636 W/28 = NL-167-
Shirred sausage casing stick with end plug - of compressed integral with remaining casing
UNION CARBIDE CORP 27.03.74-US-455367
+ Q34 Q67 (17.08.81) *US3892-869 A22c-13
26.03.75 as 003631 (160PW)

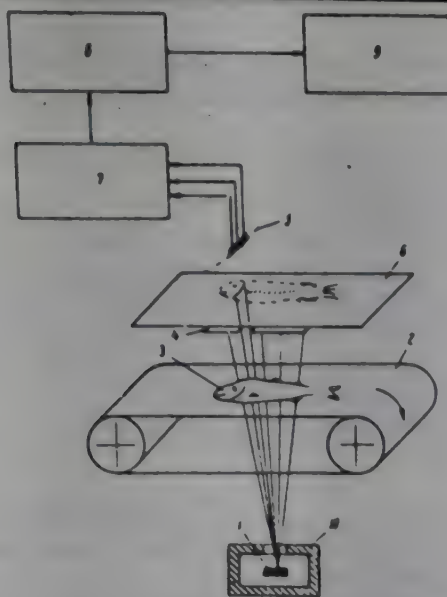
The method shuts off one end of a hollow stick of folded tubular material, e.g. as used for sausage manufacture. Part of the stick at the end to be shut off, is pressed inwards, after which a surface is placed against this end. A plug is formed by the end thrust rod moved axially to and from inside the stick, pressing part thrust inwards against the surface.

Before the part of the stick is pressed inwards, a hollow cylindrical shaping tube is inserted in the stick, this being removed after the plug has been formed. (7pp)

HAMJ- * D12 D/38 ★ NO 8000-
Processing slaughterhouse waste
HAMJERN A/S 28.01.80-NO-000192
(24.08.81) A23k

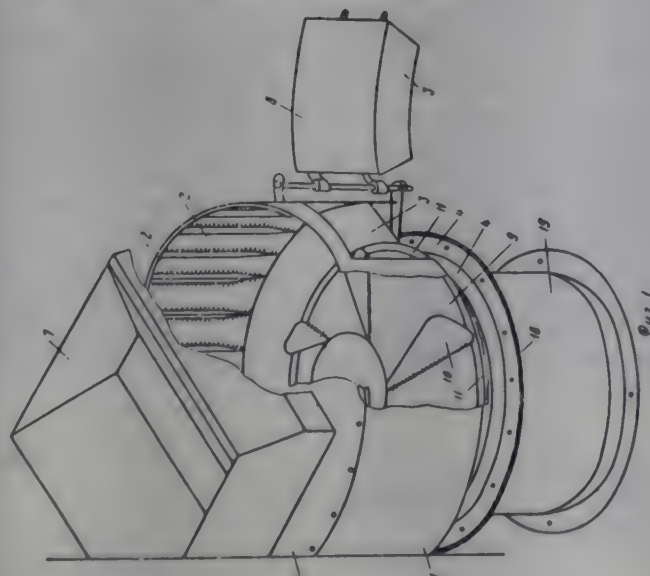
SEAF * D12 69189 D/38 ★ SU-69
Contactless method for finding position of shoulder bones in fish has matrix of photosensors above screen, whose shape follows fishbone configuration
SEA FISHERY OCEANOGRAPHY 09.01.78-SU-568159
X25 P53 (28.05.81) B22c-25/14
09.01.78 as 568159 (29MI)

Contactless method for determining the coordinates of shoulder bones in fish, during automatic fish-processing, e.g. removal of the heads from the bodies. This is done by X-raying the moving fish with an ionising radiation and projecting the skeleton of the fish on to a fluorescent screen. The accuracy of determination is increased by placing a matrix of photosensors above the screen. The shape of the sensors duplicates the shape of the shoulder bones in the fish, the flow of ionising radiation stopped down, and the coordinates are determined according to the signals, corresponding in time, from all the photosensors in the matrix. Bul. 19/23.5.81. (2pp Dwg. No. 1)



A = ★ D12 69259 D/38 ★ SU-791-363
 Interhouse waste processing for use in feedstuff - includes
 al two-stage hydrolysis with urea in presence of hydrogen
 de and intermediate addn. of keratin hydrolysate
 R MEAT DAIRY RES 11.06.79-SU-800092
 12.80) A23k-01/10
 9 as 800092 (835VE)
 ghter house waste is treated hydrothermally for use as an
 l feedstuff, becomes assimilable and its nutrient value is
 ved, if waste material thermally is hydrolysed with urea in
 ice of H₂O₂; before drying a protein component is added,
 consists of hydrolysate from keratin-contg. raw material.
 ically, 2 t. waste obtd. from cattle on the same day of
 s, unpressed and contg. 80-90% water, is loaded into a
 ntal autoclave with 15 kkg. urea and 10 kg. 30% H₂O₂. The
 ct is hydrolysed at 110 deg.C., 0.5 kg/sq.cm. press for 1 hr.
 a. The pressure is lowered to atmos. and 500 kg. hydrolysate
 ed from the urea hydrolysis of keratin. The mixt. is further
 ysed for 6 hrs. at 0.9-1.2 kg/cm. squ. pressure and finally
 in the boiler for 1 hr. After discharge from the boiler, final
 g is conducted in a pneumatic dryer.
 feeding stuff contains (in %): moisture 9.0, protein 45.0, fat
 h 7.0, cellulose 18.0, non-N-extract 18.0. The yield is 22% on
 material. The economic effect amounts to 20 rubles per t of
 l feedstuff. Bul. 48/30.12.80. (2pp)

= ★ D12 69522 D/38 ★ SU-793-548
 oment for removing sub-products from meat processing -
 ertical ribs inside body and radial ribs on rotating disc, with
 tor and door to discharge them
 SKINSK MEAT COMPL 27.02.79-SU-731435
 02.81) A22b-05/08
 79 as 731435 (29MI)
 oment for treating the sub-products obtd. during the primary
 ment of cattle in the meat ind., has cylindrical body (1) with
 s (2) on its inner surfaces, drive to rotate the conical disc (9)
 is fitted with radial ribs (10) and a circular strengthening
 These are mounted in the body with the formation of an
 ar gap between them. Grippers on the circular
 rthening rib serve to remove the tailings. Productivity is
 ased by fitting an elastic collar and a collector (3) for the
 oducts. These are placed in the lower part of the body and
 as a truncated cone. The elastic collar is located on a disc
 between the circular rib and the grippers, and the radial ribs



(10) have a streamlined varying profile; the ribs inside the body
 are mounted vertically and their lower ends are conical. (4pp
 Dwg.No.1)

WEIN/ ★ D12 69542 D/38 ★ US 4286-354
 Meat grain three dimensional template resting on meat - with
 calibrated angled conduits receiving skewer marking grain
 WEINHAUS R S 22.05.79-US-041492
 (01.09.81) A22c-17/10

22.05.79 as 041492 (295DH)

Template comprises a cylindrical block which can rest on the
 surface of a joint of meat. The block has bores which are planar
 and form preset angles to the axis of the block and accept a
 skewer so that it makes a preset angle to the meat surface.
 Typically the block has bores at 30, 45, 60, 90 deg.

In an embodiment the block has further bores arranged to lie
 on cones so that on the exterior surface of the block, the ends of
 the bores lie on concentric circles.

The template allows a user to insert a skewer into a joint of
 meat at a preset angle. The angle chosen and the positioning of
 the template depends on the cut of meat and is made in
 accordance with tables which ensure that the skewer is aligned
 with the meat grain. The user carves the meat perpendicular to
 the skewer so that the slices have a vertical grain. (12pp)

NMHB D12 69556 C/39 #US 4286-355
 Fish filleting machine - comprising conveyor, belly filleting
 knives, back filleting knives, rib knives and severing knives

NORDISCH MASCH R BAADER 30.05.79-ZA-002698 (01.06.79-
 US-044713)

(01.09.81) *ZA7902-698 A22c-25/16

01.06.79 as 044713 (006JB)

Fish filleting appts. comprises a conveyor which feeds fish tail-
 first to knives for back filleting, rib cutting, flesh stripping, and
 for cutting off the tail. Before the tail-cutting knife is a guide for
 the fish backbone, across which at least the flesh-stripping knife
 traverses, one at each side as the fish advances.

Little flesh is left on the bones, and is cut to appear smooth on
 the fillets. (4pp)

SEAS- ★ D12 69543 D/38 ★ US 4286-356
 Apparatus for removal of meat from crab body - uses jet of
 compressed air rotated to encompass attached meat

SEA SAVORY INC 29.08.79-US-070736

(01.09.81) A22c-29/02

29.08.79 as 070736 (295DH)

A crab body has its carapace removed together with its claws,
 flippers and viscera to leave two sections of meat separated by
 the visceral cavity and connected by the bottom shell. Jets of air
 are directed in a circular path under pressure towards the meat.
 The outlets of the jets are rotated to produce a path which
 encompasses the meat to be removed.

The appts. used includes a work station below which the prepd.
 crab body is supported. The jets are positioned outwardly and
 upwardly of the supported body so that the pressurised air jets
 are directed inwardly and downwardly.

The appts. may be used to remove the meat from blue, rock and
 sand crabs of the Atlantic Ocean, and the Dungeness crabs of the
 Pacific. (5pp)

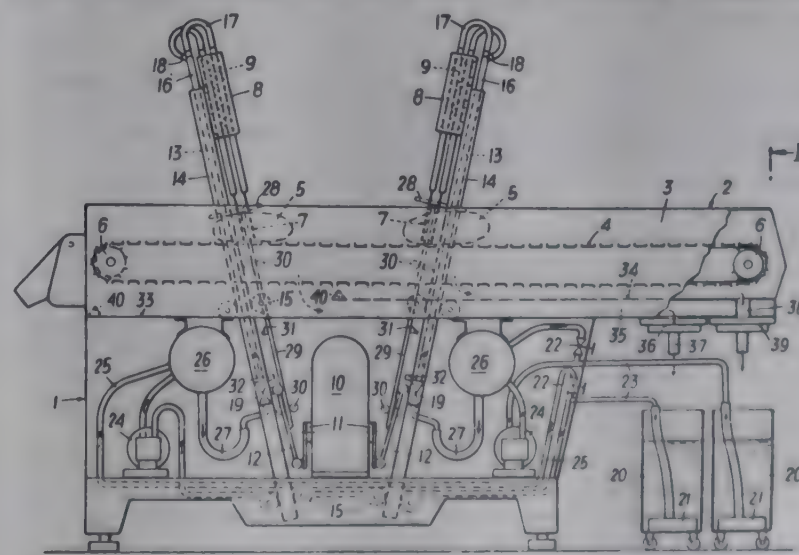
PROS- ★ D12 69558 D/38 ★ US 4286-510
 Brine injection in meat by two independent needle assemblies -
 with separate feed and recovery of excess brine AT 15.12.80)

PROSENBAUER & CO 09.01.79-AT-000156

(01.09.81) A23b-04/02 A231-03/34

31.12.79 as 108598 (295DH)

A motor-driven crank drives a pair of vertically reciprocating



frames. Each frame carries a set of needles which penetrate a piece of meat carried beneath the frames by a conveyor. Each of the needle assemblies is fed from an independent storage tank, pump and pressure regulating valve.

The fluids from the tanks are injected on the downward stroke of the frames and any excess fluid is recovered and returned independently to the respective storage tanks. Preferably the frames are slightly inclined to the vertical by complementary angles so that they form a V. Preferably the frames include stripper plates and shut-off valves.

Angling of the frames prevents the needles of the downstream set entering the apertures in the meat formed by the other set. Each set injects brine of a different concentration. (7pp Dwg.No.1)

FARH D12 33689 B/18 = US 4287-217
Cellulose hydrate hose used as sausage skin - is coated externally with permeable elastic copolymer and internally with impermeable film (SF 30.3.79)

HOECHST AG 16.05.78-LU-079665 (05.08.77-LU-077930)
A97 + P42 P73 Q67 (A11 A14) (01.09.81) *EP---1-545 B05d-07/22 + A231-01/31 F161-11

04.08.78 as 931133 (963PW)

Multiple-layered film in the form of a tubular sausage casing is claimed comprising (1) central layer of a cellulose hydrate-based material; (2) an inner continuous layer of water- and water vapour-impermeable thermoplastic resin mainly comprising vinylidene chloride; and (3) an outer lay of water- and water vapour-permeable elastic copolymer selected from (a) a copolymer mainly comprising acrylate and/or methacrylate with a minor amt. of acrylic acid and/or methacrylic acid; (b) copolymer mainly comprising butadiene, isoprene and/or chloroprene; and (c) blend of these elastic copolymers.

The material has the advantages of cellulose hydrate casing e.g. shrinkage to give tightly fitting casing, but is not sensitive to shock or trear (propagation) on cutting sausage open. (14pp)

RICH/★ D12 69740 D/38 ★US 4287-218
Ready to eat moulded meat loaf - prepd. by packing meat pieces, emulsion, broth, spices etc. in sealable mould, evacuating and cooking

RICHNI 22.04.76-US-679186 (01.10.75-US-618350)
(01.09.81) A22c-17 A231-01/31

22.04.76 as 679186 (955RH)

Bovine, ovine, porcine or avian meat is ground into small pieces, which are mixed to draw protein to the surface, then combined with a meat broth. The mixt. is placed in a mould and a flexible film is laid over the top. A vacuum is applied to eliminate air holes and voids, and draw the film in to seal the mould. The meat is then cooked while still under vacuum.

The yield is high and the prod. has excellent flavour, texture and appearance. (5pp)

UNIL★ D12 69816 D/38 ★WP 8102-378
Prod'n. of water-holding protein material - from defatted oil-seed meal, for stabilising fat emulsions

UNILEVER NV 28.02.80-GB-006807
(03.09.81) A23j-01/14

27.02.81 as E00021 (367RH) (E) J50137999 1.Jnl.Ref N(DK SU)

Prod'n. of proteinaceous materials with a high water-holding capacity is carried out by (a) treating a defatted oil-seed meal with an aq. soln. having a pH of 6.0-9.0 to solubilise at least part of the protein in the meal; (b) lowering the pH to 2.0-3.0 to dissociate the protein into sub-units; (c) heating at 80-100 deg.C to aggregate the sub-units and form a water-insoluble protein-contg. material; (d) adjusting the pH to 6.0-8.0; and (e) isolating proteinaceous material by ultrafiltration.

The products are useful as thickeners for stabilising aq. fat emulsions, e.g. in the mfr. of simulated meat products, sausages, pate, etc. (10pp)

See Also

D11 SU 793750

D13 BE 888698

D13 US 4287219

D13: OTHER FOODSTUFFS

NEST★ D13 67971 D/38 ★BE-887-787
Moulding composite confection on ice cream etc. - within ring of meringue(s) etc. located in mould channels

SOC PROD NESTLE SA 12.03.80-FR-005534
(04.09.81) A23g A23p

04.03.81 as 887787 (448NS)

The prod. consists of a more or less vertical cylindrical core of semi-fluid material, e.g. ice cream, whipped cream, with rigid vertical edible elements embedded in and stuck all around the circumference. These elements pref. are meringues, biscuits, waffles, wafers, nougat or chocolate.

The prod. is formed in a vertical, cylindrical, annular mould, open at top and bottom. The mould wall has vertical channels all around the circumference in which meringues etc. can be inserted. The mould pref. is placed coaxially over and elevator which is raised to support a circular base panel horizontally within the mould, the edge of the base panel having a slight clearance within the ring of meringues.

Ice cream etc. is filled continuously into the mould on top of the base panel which is continuously lowered by the elevator until the panel is at the bottom of the mould. Filling pref. starts with the panel about half way up the mould cavity.

Rapid production of gateaux or consistent quality and appearance. (6pp)

MAYC★ D13 67991 D/38 ★BE-888-698
Reshaping meat prod. etc. to fit tightly in plastic package - in mould cavity with fixed side and relatively movable end walls

MAYER O & CO INC 23.05.80-US-152759

Q31 (D12) (28.08.81) A23b B65b

06.05.81 as 888698 (448RH)

A mould and a moulding process for reshaping a deformable food prod. which is to be a close fit inside a preformed plastic package is claimed. The prod. is placed in a mould cavity which has fixed

be no air spaces between the prod. and its package. The preformed package can be of flexible semi-rigid or rigid plastic. Pref., flexible and semi-rigid packages are reformed in position around the prod.; rigid packages are pref. filled with a prod. which has been reformed to fit it.

Used for packaging deformable food prods. in plastic, partic. delicatessen prods. such as sausage and meat loaf. A correct wt. of a meat prod. can represent many different shapes and sizes. (28pp)

FMCC★ D13 D/38 ★BR 8100-858
Citrous fruit juice extraction
FMC CORP 13.02.80-US-120966
(25.08.81) A23n-01

UTIR-★ D13 68017 D/38 ★CA 1105-913
Automatic treatment of solid city waste - with paper sepn. and reprocessing and organic waste sepn. for feedstock production (SE 7.11.77)

UTIR SRL 09.04.76-IT-048954

C04 F09 J01 P41 (C03) (28.07.81) B03b-09/06 C05f-09

07.04.77 as 276020 (295NS)

Solid city waste is treated automatically to recover materials for subsequent use. The bags or containers holding the waste are torn and coarse materials are rejected and sent to a dump or an incineration plant for the production of steam needed in the plant. Boards are sepd. and paper mixed with plastic films are also separated. The plastics film are then separated from the paper by a dry process. The organic materials are separated and used to produce stockfeed or fertiliser. Iron components are removed and glass is removed at a station downstream of the plant producing stockfeed. Pref. the sepd. paper and organic materials are sterilised. Paper pulp is produced using a hydropulper and a rotating sieve, the materials which will not pass through the sieve being removed while the remainder are pulped.

DOLE/ ★ D13
Modified liq. or dried milk prodn.
DOLEZALEK J 17.11.80-CS-007797
(30.06.81) A23c-09/12

HENK ★ D13 68098 D/38 ★DE 3007-469
Sweets and dried fruit adhesion preventing sepg. oil mix - contg. medium chain tri:glyceride and tri:glyceride-soluble wax ester mixt.

HENKEL KG AUF AKTIEN 28.02.80-DE-007469
Q34 (10.09.81) A23b-07/16 A23g-01 A23g-03 B65d-85/60
28.02.80 as 007469 (200BZ)

Separating oil for sweets and dried fruit consists, by wt of (A) 94-98.5 (96-98)% liq medium-chain triglyceride, contg mainly 8-10C fatty acids, and (B) 1.5-6(2-4)% mixt of triglyceride- soluble natural wax esters.

Mixt (B) pref consists of equal parts beeswax, carnauba wax and candelilla wax. (A) contains esp 60% 8C- and 36% 10C fatty acids.

(B) improves the separating effect of (A) and imparts a glossy, not-too-hard surface to sweets. The separating oil does not penetrate into dried fruit, but adheres on surface.

The separating oil can be sprayed into moulds, packaging material, on sweets, candied or dried fruit, to prevent sticking together or to moulds. (5pp)

BIOL- ★ D13 68128 D/38 ★DE 3008-171
Nutritional table salt prepn. - by mixing carnallite-contg. dead sea water concentrate with rock salt or sodium chloride

BIOLABOR BRACHMAN W 04.03.80-DE-008171
(10.09.81) A23l-01/23

04.03.80 as 008171 (200NS)

Table salt having useful nutritional and physiological properties is prepd by mixing a carnallite-contg salt concentrate, (A), recovered from Dead Sea water by evaporation, with 70-90 (76) wt% w.r.t total mix., of rock- or common salt.

In carnallite ie.KCl.MgC12.6H2O, the MgC12 is non-hygroscopic. The high MgC12 content provides Mg ions during digestion. (A) is recovered economically. A daily intake of 10g mixt of 24% (A) and 76% (B) can provide 200 mg MgC12 out of the total 250 mg MgC12 required in diet. (9pp)

BATT D13 89608 A/49 =EP G006-856
Carbohydrate based ruminant feedstuff - contg. glucosyl-urea to increase cellulose and nitrogen assimilation

BATTELLE-INSTITUT EV 10.06.77-CH-007159
C03 (09.09.81) *WP7800-017 A23k-01/22 C07h-13/12

01.06.78 as 900014 (922AS) (F) DS-727691 US2612497 US2687354 E(CH DE FR GB LU SE)

A feedstuff for ruminants is based on carbohydrates (I) and a crystallised glycosylurea (having a purity of at least 90% and not containing more than 10 wt.% chemically unbound urea and glucose) as a stimulant for the digestion and assimilation of (I). (I) may be a mixture of 30-70 wt.% (of the feedstuff) starches and 20-50 wt.% (hemi)celluloses. The feedstuff also contains water, binders, premixes, fat and/or flavours.

(II) is produced by heating one equiv. of glucose with one equiv. urea at 60-70 deg.C. in the presence of a strong acid (H2SO4) as a dehydrating agent and diluting with 30-50 wt.% water so that, by concentrating and cooling, (II) of the requisite purity will deposit by crystallisation. (7pp)

BIOT- D13 86357 C/48 =EP --35-013
Prophylactic determination of food putrefaction - by determining spectral data of sample and comparing with corresponding statistical data

BIOTEKNISK INST 01.05.79-DK-001788
J04 S03 (D16) (09.09.81) *WP8002-458 G01n-21/64

05.09.79 as 901136 Based on WP8002458 (295PW) (E) SE-409623 FR2368710 US4084905 US4030827 GB1244374 DS2104393 EP--03015 US3449571 E(DE FR GB NL SE)

Rot in potatoes is determined by a direct, prophylactic method. Spectral data for a sample of the potatoes are determined and compared with corresponding data which are statistically correlated to the probability of rot development. Pref. the spectral data are fluorescence data induced by ultra violet light.

The method is used for the detection of infections in potatoes caused by the fungi *Phoma* and *Fusarium*. It may also be used to detect other rot e.g. the presence of toxins or aflatoxins caused by *Aspergillus* infections in grain varieties. (21pp)

SCHA/ D13 66248 D/37 =EP --35-062
Concentrate based on yeast liq., useful in human or animal nutrition - prepd. by partial evapn., adding milk or starch prods. etc., then drying

SCHANZE R 27.02.80-DE-007383

C03 (D16) (09.09.81) *DE3007-383 A23k-01

08.12.80 as 107710 (1251) (G) DS1061608 DS-174864 DE1792016 WP7900183 DE2512258 DS2629268 DE1492787 FR-921734 DS2643093 E(AT BE CH DE FR GB LI NL)

Prod. of a concentrate (A) comprises first evaporating yeast liq. opt. after adding a soln. or suspension of by-prods. (B) from the dairy, starch or food industries or from industrial fermentation processes, to give a pre-concentrate (C) of 16-50% dry matter content. This is mixed with suitable raw materials to increase dry matter content to 35-60%, then the blend dried to over 80% dry matter.

The final prod. contains, per 100 pts. dry matter, (a) 20-60 pts. yeast liq. solids; (b) 30-60% milk by-prods. solids; (c) 5-25 pts. starch prod. solids; (d) 0-15 pts. cellulose and-or prods. rich in crude fibre; (e) 0-25 pts. fermentation process solids, and (f) 0-20 pts. solids from alcoholic fermentation, pulps or hydrolysates. (A) themselves are also claimed.

(A) are useful for human and partic. animal nutrition. It can be made with a sstandardised compsn.; has satisfactory stability; does not have any unpleasant taste; and is made simply and economically (esp. reduced energy costs for evaporation) from waste materials. (A) are rich in proteins, B vitamins, minerals, trace nutrients, enzymes and 'unidentified growth factors'. (32pp)

FARH D13 62503 D/35 =EP --35-125
Free-flowing solids prodn. from salinomycin culture broth - by fermenting to minimum extractable fat content and spray drying with the addn. of anticaking agents

HOECHST AG 15.02.80-DE-005642

B04 C03 (D16) (09.09.81) *DE3005-642 A23k-01/17 + C12p-01

05.02.81 as 100801 (280AT) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

In isolation of solids from salinomycin culture broths, (a) the lowest possible level of extractable fats and fat-like substances is attained in the fermentation and (b) a physiologically tolerable anti-caking agent is added during the spray-drying. Salinomycin culture broth solids contg. physiologically tolerable anti-caking agents are claimed.

Salinomycin is used as a growth and feed utilization improving feed additive. It is also used in veterinary medicine as a coccidiostatic agent. Unpurified solids from salinomycin fermentation are suitable for use as feed additives. Observation of the conditions specified above gives a non-caking product; observation of either condition alone does not impart non-caking properties.

Pref. the salinomycin fermentation is continued until the extractable fat content has fallen to below 2%. The anticaking agent, which is pref. added before spray drying, is pref. finely powdered calcium carbonate or silicic acid. (11pp)

COMI- ★ D13 68342 D/38 ★FR 2475-350
Grain drying chamber with horizontal air distribution channels - located and fitted without supplementary fasteners or welding

COMIA FAO SA 07.02.80-FR-002664

P12 (14.08.81) A01f-25/14 A23b-09

07.02.80 as 002664 (448HM)

In grain drying chamber grain is filled into the space between a pair of parallel, vertical walls. A series of air distribution channels extends horizontally between the walls. Each channel is in the form of an inverted gutter, i.e. with channeled side facing downwards. One end of each channel communicates with an air supply hole in the wall at that end.

The air supply end of the channel extends through the wall and has an enlargement on the outside which is of similar cross-section, but will not pass through the hole. The other end of the channel has a longitudinally projecting integral to ngue which passes through a slot in the second wall and is folded over an the outside of that wall, wall. The chamber is pref. pressed in sheet side walls topped with a dihedral ridge-roof. The cross-section of the channel pref. tapers progressively, reducing from the air supply end.

Used for drying bulk grain. This type of air distributor not only series as a stiffener between the walls, but is fitted without any supplementary fastening such as bolts, rivets or welding. Speed of assembly and dismantling for removal are greatly increased. (9pp)

GOAV- ★ D13 68343 D/38 ★FR 2475-354
Heat treatment vessel for milk prods. esp. thick cream - circulates heat transfer fluid through passages in rotary agitator impellers

GOAVECSA 08.02.80-FR-002852
P13 (14.08.81) A01j-13

08.02.80 as 002852 (448KB)

The vessel is pref. vertical cylindrical and contains a vertical, coaxial, rotary shaft fitted with an agitator in the form of impeller blades. The vertical shaft and the blades now have internal passages through which heat transfer fluids are circulated under pressure in order to warm or cool the contents of the vessel above the surface level of the contents, the rotary shaft pref. has a rotary coupling with branch inlet and outlet for heat transfer fluid for circulation.

The coupling pref. has a rotary inner member, integral with the shaft which contains inflow and return passages for heat transfer. (11pp)

FRIN/ ★ D13 68345 D/38 ★FR 2475-360
Prepn. of butter flavoured with herbs or condiments - added to the churned milk cream at end of mixing

FRINOTM 08.02.80-FR-002754
(14.08.81) A23c-15/12

08.02.80 as 002754 (597NS)

The butter, ready for using in cooking after removal from the refrigerator, is prepd. by adding to the churned milk cream, at the end of the known mixing operation, a predetermined amt. of herbs and/or condiments. The homogenised mass is then moulded, wrapped and frozen. Pref. herbs are parsley, chives, chervil, sorrel, basil, spinach, provence herbs, thyme, laurel, and rosemary.

It avoids work and time required to prepare the flavoured butter from butter when required in cooking. The butter is stable to cold storage. (5pp)

FROM- ★ D13 68346 D/38 ★FR 2475-361
Prepn. of dairy prods., pref. cheese, using ultrafiltered retentate - treated with additive or formed into layered and/or veined prods.

FROMAGERIES BEL 07.02.80-FR-002708
(14.08.81) A23c-19/06

07.02.80 as 800270 (597AS)

The process comprises ultrafiltration of milk, opt. after standardising in fat and opt. maturation with lactic ferments, followed by treatment of the retentate selected from incorporating an additive; preparing multilayer dairy prods.; preparing veined dairy prods.; and preparing dairy prods. having one or more layers with a veined appearance.

The process enables easier prepn. of the above prods. as the curds produced in the normal cheese making process only retain additives with difficulty produced in the normal cheese making process only retain additives with difficulty. (11pp)

LOWE- ★ D13 68414 D/38 ★GB 1598-069
Semi-moist animal food made from raw, blanched or cooked meat - mixed with shortening, soya, sugar, farina and CMC in a bowl chopper with no cooking after mixing

LOWE FC & SON LTD 21.12.76-GB-053301
A97 C03 (16.09.81) A23k-01/10

21.12.77 as ----- (513RH)

Semi-moist animal food for pets is made by mixing uncooked, blanched or cooked meat and/or offal, starch-contg. materials and sugars and chopping the mixt. in a bowl chopper until a homogeneous plastic prod. is obtd. without subsequent cooking of the mixt.

In a pref. process, tripe and liver are heated at 212 deg.F for 0.5 hours and lights are blanched, then the meats are chopped to a fine grist in a bowl chopper. Shortening, soya, sugar and farina and added, together with a premix of potassium sorbate and propylene glycol plus CMC and salt and a small amt. of colouring and water. Chopping is continued to give the correct texture, then the mixt. is minced and packaged.

About 33% of the meat and/or offal and all the non-meat ingredients are in the raw state with the proteins in the natural condition; the high water-holding capacity of these contributes significantly to the character of the compsn. The prod. contains less water soluble material w.r.t. water than known prods. No flavouring agents are required, the flavour being determined by the combined organoleptic properties of the ingredients. (2pp)

BOEH D13 19762 A/11 = GB 1598-253
Stable buffered aq. food acid solns. - prepd. by partially neutralising a mixt. of lactic acid and citric acid etc. with potassium ions

BOEHRINGER INGELHEIM 07.01.77-DE-700568

Aq. non-crystallising solns. of organic food acids, other than tartaric acid, have dry solids content above 55 wt.%, 8-20% of the number of equivs. of food acids present are in the form of their K salts, the remainder are in the form of the free acid or other salts. Pref. the pH of a 1:10 diluted soln. is 2.7-3.3. Suitably the solns. comprise lactic acid with up to 25% citric acid.

Inexpensive buffered solns. are provided which are easy to pump, can impart agreeable acidulous taste and do not lead to side effects such as saccharose inversion or gelatin degradation. Used esp. in confectionary, drinks and also in leather tanning. (5pp)

KERR- ★ D13 68431 D/38 ★GB 1598-362
Emulsified food prepn., esp. low calorie butter - by emulsifying a fat with an aq. phase of skimmed milk or sweet buttermilk contg. caseinate salt(s)

KERRY CO-OPERATIVE 31.12.76-IE-002866
(16.09.81) A23d-03/02

28.12.77 as 053991 (513RH)

Emulsified food prepn. is made by emulsifying an aq. phase comprising skimmed milk or sweet buttermilk contg. caseinate salt(s), with a fat phase. The fat phase is e.g. a fat or oil derived from full fat milk, esp. butter, butter-oil or cream or a mixt. of these. The fat phase may also contain vegetable oil. The caseinate salt used is pref. derived from skimmed milk, e.g. by acid pptn. of curd followed by treatment of the curd with alkali. The caseinate salt is pref. in spray dried form. Pref. the aq. phase makes up 25-65 wt.% of the whole compsn. Emulsification is pref. carried out at 40-50 deg.C, the pH of the emulsion is adjusted to 6.4-6.8 with a buffering agent, the emulsion is pasteurised at 72 deg.C for ca. 15 seconds, cooled to 14 deg.C and allowed to solidify. The solidified emulsion is pref. cooled to 11 deg.C and mechanically worked to achieve uniform distribution of droplets of the aq. phase.

Prods. may be made in the form of butter-like prods. with a relatively low calorie content and relatively high protein content cf. natural dairy prods. such as butter. (6pp)

TENC ★ D13 68435 D/38 ★GB 2070-911
Machine for hulling pistachio nuts - with rotating abrasive disc carrying nuts along tortuous path directed by vanes

TENNECO WEST INC 05.03.80-US-127498
(16.09.81) A23n-05

09.10.80 as 032611 (295HM)

Machine for hulling nuts consists of a disc horizontally mounted for rotation about a vertical axis. The upper surface of the disc is formed with an abrading surface. Nut guides are mounted with their lower surfaces spaced above the abrading surface and extend at least partially across the surface to direct a nut along a predetermined path.

Pref. the guides are vanes, successive ones being oppositely angularly positioned relative to the radii of the disc, to define a successively inward and outward reciprocating path for the nuts.

The machine is particularly designed for hulling pistachio nuts. The kernels are not damaged and the machine abrades the hulls into fragments smaller than the kernels and centrifugally urges them to the periphery of the disc where they are collected. (14pp)

PHYL- ★ D13 D/38 ★HU H002-660
Enriched, homogenised animal feed additive - based on agricultural waste and dicalcium phosphate contg. urea and trace elements

PHYLAXIA OLTOANYAG 23.01.81-HU-000141
C03 (28.08.81) A23k-01/17

MEZO- ★ D13 D/38 ★HU T020-488
Cattle feed additive - contg. minerals and microelements in compsn. and quantity determined by analysis of blood serum

MEZOGAZDASAGI TERME 25.07.75-HU-ME1879
C03 (28.08.81) A23k-01

CHEM- ★ D13 D/38 ★HU T020-489
Processing tropical plants, esp. cassava leaves - to give protein-rich foodstuff and animal feed

CHEMIMAS VEGYIGEP 30.01.80-HU-000196
C03 (28.08.81) A23k-01 A23l-01/20

EGYE ★ D13 D/38 ★HU T020-490
Prepn. of carbadox-contg. concentrates - for weight-increase-promoting animal feedstuffs

EGYTG YOGYSZER VEGYESZETI 20.02.80-HU-000389
C03 (28.08.81) A23k-01/16 C07c-125

CHIN ★ D13 D/38 ★HU T020-491
Water-resistant, protein- and carbohydrate-contg. animal feedstuffs - prepd. by treatment with formaldehyde

CHINOIN GYOGYSZER 13.07.78-HU-CI1844

Carbonated drink prodn. from aq. liq. satd. with carbon dioxide - by contact with porous active carbon obtd. from palm fruit, used in mfr. of canned and bottled beverages

GENERAL FOODS CORP 10.10.79-US-083736

(25.05.81) A231-02 B01f-01 C01b-31/08 C01b-33/28

09.10.80 as 141816 (15NS)

An aq. liq. satd. with CO₂ is contacted with porous active C of adsorptivity 20 cm³ or more of CO₂ per gram of porous active carbon at 35 to 78.5 deg.C. under a pressure ranging from super-pressure to about 50 psig (3.5 kg/cm² gauge pressure). One volume or more of CO₂ is satd. in one vol. of the aq. liq. The porous active carbon is produced from palm fruit and has pore dia 4 to 50 Angstrom.

Process is used to produce a bottled or a canned beverage. (14pp)

MATS ★ D13 68636 D/38 ★ J5 6095-901
Mfg. carrageenan by gelling with aq. salt soln. - where gel obtd. is sepd. from aq. salt soln. using centrifuge, dried and pulverised

MASAYUKI MATSUMOTO 28.12.79-JP-173175

A11 (03.08.81) A231-01/04 C08b-37

28.12.79 as 173175 (57KB)

Process comprises cooling extracted carragheenan liq. obtd. in extn. purificn. process of carragheenan to 20-50 deg.C, jetting it in fine line in an aq. soln. contg. alkali metal salt with concn. 0.5-5wt.% to gel, sepg. the gel from the aq. salt soln. by suitable process such as centrifugal hydroextractor and dehydrating, drying and pulverising the obtd. gel.

The extd. liq. is concd. to 2-3 times concn. in the process of gelling deposition without a vacuum concentrator. As the gel is formed in fine fibre, it has great surface and press dehydration time is reduced to 1/3-1/4 of the conventional process. As the gel is easily dehydrated, normal temp. soluble carragheenan can be mfd. with cheap equipment, simple operation and low mfg. cost.

As alkali metal salt, at least 1 of sodium salt, potassium salt, ammonium salt, calcium salt, magnesium salt, etc. is used. (2pp)

AJIN ★ D13 68764 D/38 ★ J5 6096-669
Animal feed for pigs, cows etc. - contains cyclic peptide Permetine A obtd. by culturing Bacillus circulans microorganisms, for excellent growth acceleration

AJINOMOTO KK 28.12.79-JP-172275

C03 (04.08.81) A23k-01/17 A61k-37/02

28.12.79 as 172275 (117RP)

Feeds, e.g., wheat, barley, starch, oil cake, fish powder, or others, contain 2-20 ppm cyclic peptide antibiotic Permetine A which is obtd. by isolation and refining from the culture liq. of Bacillus circulans. The feeds has not only excellent growth acceleration action on livestock, e.g., pig, cow, etc., but also can be used safely and continuously for a long time.

For example, Permetine A was refined and then mixed with a small amt. of corn starch powder. Then, various feeds contg. 2.0-20.0 ppm Permetine A were prepd. and used as feeds for chicken. Also, feeds contg. 10 ppm colistine were used for comparison. As a result, the growth of chicken fed with feeds contg. Permetine A was much more outstanding than those fed with feeds contg. colistine and controls. (2pp)

MAZN ★ D13 68767 D/38 ★ J5 6096-678
Sweetener prepd. by extn. of licorice with aq. alkali hydroxide soln. - and heat treating glycyrrhizin to give prod which does not gel at acidic pH

MARUZEN KASEI KK 28.12.79-JP-172494

B03 E13 (04.08.81) A231-01/22

28.12.79 as 172494 (42BZ)

A sweetener (I) contg. a cpd. (II), obtd. by treating at high temp. glycyrrhizin, (III) which is extracted from a licorice (IV), with aq. alkali hydroxide soln., is new.

(II) is prepared as follows; (1) root of (IV) is extracted with warm water, (2) pH of the extract is brought to about 2.0 by addn. of hydrochloric acid, to form a ppt. of (III), (3) 10N-NaOH soln. is added to the ppt. followed by heat-treatment at 120 deg.C for 30 min., (4) the soln. is mixed with a hydrochloric acid soln., after cooled, (5) thus formed ppt. is washed with water and dried, (6) the dried product is dissolved in KOH-soln., and (7) (II) is allowed to ppt. with addn. of alcohol.

(III) has a strong sweetness as 100-300 times high as that of sucrose, and therefore it has been used as a substitute of sucrose because of its low calories. But it forms gel when used in acidic pH range. (II) forms no gel in acidic pH range, although it is considered to be a cpd. having a structure similar to that of (III). The sweetness and taste of (II) are also similar to those of (III). (3pp)

HIGE- ★ D13 68768 D/38 ★ J5 6096-679
Seasoning soln. prepn. - by treating raw materials contg. protein with protease at high temp., then with peptidase and/or glutaminase at low temp

HIGETA SHOYU KK 29.12.79-JP-171849

(04.08.81) A23j-03 A231-01/22

29.12.79 as 171849 (42RH)

Raw material (I) contg. proteins is treated with a protease not contg., or contg. a slight amt. of, peptidase at a high temp., and subsequently with peptidase and/or glutaminase at low temp. The treatment of the first step is performed at 50-55 deg.C for 3-12 hrs., while that of the second step at 35-45 deg.C for 10-40 hrs.

Used to produce seasoning soln. (II) contg. a large amt. of glutamic acid. In this method, (1) the efficiency of glutamic acid formation is high, (2) various germs do not grow in the process, and (3) it is not necessary to use antifungal agent. (4pp)

KYOW ★ D13 68769 D/38 ★ J5 6096-680
Seasoning prodn. - by coating mixt. of sodium guanylate and organic acid with fat

KYOWA HAKKO KOGYO KK 28.12.79-JP-170391

E12 (04.08.81) A231-01/22

28.12.79 as 170391 (42RH)

A seasoning (I) is prepd. by coating a mixt. of sodium guanylate (II) (1 pt. wt.) and organic acid (III) (0.3-3 pt. wt.) with a fat having a m.pt. 40-90 deg.C.

(II) is used in fish meat-paste, ham, sausage, etc. with sodium inosinate and sodium glutamate. (II) must have phosphate group at 5'-position of ribose in purine-nucleoside in order to exhibit seasoning-effect. But the phosphate gp. is released by the enzyme present in meats, fish-meats, and vegetables, losing its seasoning effect. The present method prevents the enzymic decomposition of (II), when (II) is mixed with these foodstuffs.

Examples of (III) are fumaric acid, citric acid, tartaric acid, etc. Mixt. of (II) and (III) can be coated by the fat by one of the following methods. (1) the mixt. is suspended in a melted fat and the suspension is sprayed and cooled; (2) a melted fat is sprayed on the surface of the mixture. (5pp)

DAUC ★ D13 68770 D/38 ★ J5 6096-686
Food preservative compsn. - contg. zeolite absorbing one or more of (arabo ascorbic acid, its salt or their deriva.

DAIICHI SEIYAKU KK 27.12.79-JP-172416

(04.08.81) A231-03/34

27.12.79 as 172416 (42AT)

Zeolite (I) absorbing one or more cpds. (II) comprising one or more of ascorbic or araboascorbic acids, their salts and deriva. is new.

Prepn. of (I) comprises mixing zeolite with a soln. or suspension of (II). The wt. of zeolite used is 1-50 times that of (II). Before the treatment, zeolite should be calcined at 200 deg.C for about 2 hrs. As zeolite, both natural and synthetic zeolites are used.

(I) absorbing (II) is used for prevention of food-decomposition. (II) have been used as antioxidant for foodstuffs, but, are decomposed by heavy metal ions, aminoacids and other components in the foodstuffs, losing its antioxidant-effect. (I) controls the humidity in the food-contg. vessel, releasing (II) gradually, and preventing food-decomposition. (4pp)

TANA/ ★ D13 68887 D/38 ★ J5 6097-248
Water soluble calcium citrate-calcium malate composite prepn. - by adding calcium hydroxide or carbonate to malic and citric acid soln. or calcium chloride to sodium salt(s) soln.

TANAKA S 28.12.79-JP-173172

B05 E12 (05.08.81) C07c-51/41 C07c-56/24

28.12.79 as 173172 (59BZ)

Citric acid (up to 70 wt.%) and malic acid (at least 30 wt.%) are dissolved in water and Ca(OH)₂ or CaCO₃ is added to neutralise the soln. giving a water-soluble composite of Ca malate and Ca citrate in a wt. ratio of = 2:3. Alternatively, the composite may be prepd. by dissolving Na citrate (up to 70 wt.%) and Na malate (at least 30 wt.%) in water and adding a stoichiometric amt. of CaCl₂ to ppt. crystals.

The composite is soluble in water in an amt. higher by 590% than the sum of solubility of Ca citrate and malate. The composite is usable for replenishing Ca in vivo. (6pp)

TAKE ★ D13 68902 D/38 ★ J5 6097-298
Extraction and purification of glycyrrhizin - by contacting liquorice extract with polycondensate of aldehyde and aromatic amino cpd. and eluting with aq. alkali

TAKEDA CHEMICAL IND KK(MAZN) 28.12.79-JP-173818

B03 E13 (05.08.81) C07h-15/24

28.12.79 as 173818 (83RS)

The method comprises contacting liquorice extract (Spanish juice) (I) with polycondensate (II) of aldehyde (III) and aromatic cpd. (IV) having amino gp. or amino gp. and phenolic hydroxyl

gp., and eluting glycyrrhizin (V) adsorbed on (II) with aq. alkaline.

(III) is e.g. formaldehyde, acetaldehyde, glyoxal, etc. (IV) is e.g. aniline, m-phenylenediamine, tolylenediamine, aminophenol, resorcinol, etc. Partic. suitable combination is m-phenylenediamine/formaldehyde. Amino gp. content of (II) pref. 10-17 wt.% (based on N). The adsorption is carried out by passing (I) through a column packed with (II). Water used for eluting (V) has pH of 9-13. The aq. soln. of (V) obtained is neutralised, desalted and freeze-dried or spray-dried.

(II) has high adsorbing capacity for (V), and releases (V) readily without use of expensive organic solvents. (4pp)

POLA D13 65183 Z/00 = NL-167-580
Flavouring method

POLAK'S FRUTAL WORKS INC (DOUW) 11.09.67-US-666980
B05 E19 (17.08.81) *BE-720-629 A231-01/23
30.01.79 as 000738 Div.ex 10.9.68-012899 (913MR)

Pyridine or pyrazine derivs. (I) are used as flavourants or aromatisers to impart or enhance roasted or burnt aromas to foods and drinks. (I) are 2-acetyl 3-hydroxy-pyridine, 5H-6,7-dihydro- cyclopenta (b) pyrazine, or 2-5 methyl 5H-6,7- dihydro- cyclopenta (b) pyrazine and/or 2-acetyl 3-methyl-pyrazine.

(I) are used as 0.005-100 ppm in roasted grain (eg popcorn, cornflakes), seeds/beans (esp. baked beans), confectionery. (3pp)

WELC- D13 24208 B/13 = NL-167-714
Anthocyanin pigment recovery from plant materials - by ultrafiltration, esp. from black grape solids extracted with aq. sulphur di:oxide solns. (NL 15.3.79)

WELCH FOODS INC 13.09.77-US-832814
B07 E24 (B04 D21) (17.08.81) *DE2839-502 C09b-61
13.09.78 as 009319 (913PW)

Anthocyanines are recovered from a water and SO₂ contg. extract of vegetable material by ultrafiltration to separate the monomeric anthocyanines in the filtrate from macromolecular material. Before the ultrafiltration process, the SO₂ content is determined and then maintained at 500-2000 (pref. 1000-1200)ppm.

The anthocyanines are natural colourants, giving shades from red to purple, and are used in liq. or solid foods and luxury foods, cosmetics and pharmaceuticals. (8pp)

POTA= * D13 69187 D/38 ★SU-672-729
Potato-based foodstuff prodn. - by pressing, grinding sulphiting, and partial cooking and adding conc. juice and starch to dried pulp

POTATO FOOD IND INS 03.08.77-SU-514807
(25.05.81) A231-01/21
03.08.77 as 514807 (835VE)

Loss of dried material is minimised and a better quality product is secured as follows: 1.5-3% surfactant is added to the pressed bulk, the mixture is dehydrated, cell fluid is sepd. the product is crumbled and dried, leaving 90-96% starch and dried pulp.

The cell fluid is concd. by multi-stage freezing and centrifuging and finally dried. The dried material or the liquid concentrate are mixed with the dried pulp for final desiccation. (3pp)

KAME/ * D13 69203 D/38 ★SU-754-856
Animal fodder supplement prepn. - includes neutralising waste vegetable material enzymic hydrolysate with ammonia, treating with lime and evaporating

KAMENNYI VI 12.10.78-SU-674184
C03 (D16) (30.05.80) C12c-11/22 C13k-01/04
12.10.78 as 674184 (70VE)

Waste obtd. by fermentation of a vegetable material in yeast biomass prodn. is neutralised with ammoniacal water, then evapd. and dried to produce a fodder additive. This method is improved by treating the product, before the drying, with lime at 60-80 deg.C, and continuously introducing air. Subsequently, gypsum formed during this process is removed.

By this method, the ammonia content in the final product is reduced, thus improving its properties as a fodder additive. Ammonia is recovered. Valuable protein-vitamin based prod. is obtd. Bul. 20/30.5.81. (2pp)

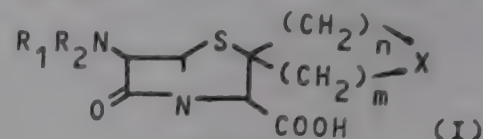
UNIO D13 53860 A/30 = SU-791-245
Spiro-thiopyran or-pyran penicillin derivs. - useful as antibiotics and feed additives esp. against Gram-negative strains producing lactamase

UCBSA 18.01.77-GB-001906
B02 C02 (23.12.80) *DE2801-850 A61k-31/43 C07d-499/82
18.01.78 as 566099 (GW)

Penicillin derivs. of formula (I) and their non-toxic, pharmaceutically acceptable salts (esp. Na or K salts) have been prepd. in the formula, X is O, S or SO; n and m are each 1 or 2, R₁

or 2,6-dimethoxy benzoyl; or R₁+R₂ are together a divalent residue esp. (hexahydro- 1H-azepin- 1-yl) methylene). (I) are prepd. e.g. by standard acylation of corresp. 6-NH₂ cpds.

(I) are broad-spectrum antibacterials useful as animal feed additives and therapeutically in human or veterinary medicine. They are esp. useful against gram-negative species which elaborate beta-lactamase. Bul. 47/23.12.80 (5pp)



FARH D13 08318 A/05 = SU-791-257
Treating microbial cellular mass with ammonia and alcohol solvent - to remove lipid and nucleic acid from protein food product

HOECHST AG 27.07.76-DE-633666
C03 E35 (23.12.80) *BE-857-229 + C12d-13/06
26.07.77 as 504953 (GW)

A process for reducing the lipid and nucleic acid content of a microbial cellular mass comprises treating with NH₃ or NH₄OH and a solvent of formula R₁-(CH₂)_n-OR₂ where R₁ and R₂ are H and n is 1-3, or R₁ is OH and R₂ is H, CH₃ or C₂H₅ and n is 2 or 3. After sepg. the liq. the residual cellular mass is washed with water and dried.

The process is used in the prepn. of protein material by fermentation used in food prods. and forage. Compared with previous purification processes, the purificn. is more complete, and it avoids the use of toxic solvents and the inconveniences of the high temp. alkaline sepn. Bul. 47/23.12.80. (4pp)

POUL= * D13 69258 D/38 ★SU-791-357
Prod. of artificial parthenogenesis in chickens - by activating thermally pretreated isolated large follicles and incubating in specified nutrient medium

POULTRY RES INST 19.06.79-SU-781767
C03 P14 (30.12.80) A01k-67
19.06.79 as 781767 (835VE)

The process is used in chicken stock with a low frequency of natural parthenogenesis as follows: follicles measuring 17-37 mm. are removed from a chicken and left in a warm flow at 45-46 deg.C. for 30-40 min. in presence of nutrient medium contg. 48-50% chicken protein in Hanks soln. The follicles are subsequently incubated in vitro in this medium.

Typically, all the large follicles were removed from 60 virgin white Leghorns and the surrounding membranes were removed. The follicles were placed in 40 mm. centrifuge tubes containing nutrient medium with added chicken protein (details are given). The tubes covered with cellophane film to preserve sterility, were warmed at 45-46 deg.C. for 30-40 min. on a water bath to activate the follicles. These were then incubated for 24 hrs. at 41.7-42 deg.C. and subsequently dried at 37.5-37.7 deg. C to 58-60% water-content. The success rate was 96% against 40-50% or even 0.1% in some strains. The procedure allows genetic studies to be conducted with a much reduced no. of tests. Bul. 48/30.12.80. (2pp)

SALT= * D13 69260 D/38 ★SU-791-364
Salt mixt. used as animal feedstuff additive - contg. limestone and magnesia from waste solids and brine from sodium chloride mfr.

SALT IND RES INST(LIVE=) 06.06.79-SU-776931
C03 (30.12.80) A23k-01/17
06.06.79 as 776931 (835VE)

The food value of salt mixt. is enhanced by adding CaCO₃ and Mg(OH)₂. The salt mixt. comprises (in wt.%): NaCl 70.5-79.5, Na₂SO₄ 9.2-13.7, Na₂CO₃ 0.5-0.9, CaCO₃ 10.0-14.5, Mg(OH)₂ 0.8-1.4. The salt is made by evapn. of waste from salt prodn. to give a dry solid. Before concn. 1 pt. sludge is mixed with 4-6 pts. mother brine.

Typically, 200 ml. sludge contg. (in g/l): CaCO₃ 217, NaCl 137, Mg(OH)₂ 20, Na₂SO₄ 2.6, remainder - water, are mixed with 800 ml. brine contg. (in g/l): NaCl 240, Na₂SO₄ 50, Na₂CO₃ 3.4, remainder - water. The slurry is dried to give a prod. contg. (in wt.%): NaCl 70.5, CaCO₃ 10.0, Na₂SO₄ 9.2, Mg(OH)₂ 0.8, Na₂CO₃ 0.5. Tests indicated that the proposed salt was less toxic than pure NaCl when used with cows and pigs.

By using salt purification waste, the presence of unsightly dumps from salt production could be avoided, and animal salt could be made from low cost material. Bul. 48/30.12.80. (3pp)

VITE = ★ D13 69261 D/38 ★ SU-791-365
 Prodn. of cattle feed additive - from milled grain and urea using tripolite as plasticiser during extrusion

VITEB AGRIC STATION 05.09.77-SU-522131

C03 (30.12.80) A23k-01/22

05.09.77 as 522131 (835VE)

Cattle feed is improved by mixing milled grain with urea and a plasticiser, after which the product is passed through a press-extruder. Costs are reduced and the efficiency of the additive is raised by using as plasticiser, precipitated tripolite.

Tripolite is similar to Na-bentonite in its props., e.g. porosity, moisture capacity, plasticity. Both materials are similar in composition and are used to purify syrups, vegetable oils and fruit juice. The cost of 1 t. tripolite is however 4 times less than 1 t bentonite. (2pp)

DONS = ★ D13 69262 D/38 ★ SU-791-366
 High nitrogen, additive for ruminant feedstuff prodn. - by treating urea and hydrocarbon oil cultivated yeast mixt. with aq. formaldehyde soln. for low toxicity

DONSK AGRIC INST 07.03.79-SU-733924

A97 C03 (D16) (30.12.80) A23k-01/22

07.03.79 as 733924 (835VE)

The total N-content is raised and toxicity eliminated if aq. urea soln. before HCHO treatment, is mixed with nutrient yeast biomass cultivated on hydrocarbon oils. The liquid is mixed with HCHO at 25-50 deg.C, pH 3-5. The wt. ratio of urea:nutrient yeast:formaldehyde:water is 4:1-1.5:1.5:5.

Typically, 120 g. urea, 100 ml. water and 30 g. nutrient yeast are heated to 25 deg.C., after which 80 g. 37% HCHO are added. The soln. is stirred continuously until the temp. falls to 40-50 deg.C. and 1 ml. (1.19) HCl is added. The product hardens and the temp. rises to 80 deg.C. with loss of some water. Bul. 48/30.12.80 (3pp)

ORSH = ★ D13 69523 D/38 ★ SU-793-553
 Protein coagulation, e.g. during casein prodn. - by calculating coagulation temp. from acidity of coagulant

ORSHAN MILK COMPLEX(LERE =) 24.10.77-SU-536931

(07.01.81) A23c-19/02

24.10.77 as 536931 (29MI)

Method for the coagulation of protein, in the dairy ind. during the production, e.g. of casein, primarily by mixing skimmed milk with a coagulant up to a preset pH value, and heating to the coagulation temp. The technological process is simplified, the number of parameters that have to be controlled is reduced, and loss of main product is also cut down, by regulating the temp. and the acidity of the mixture, by the effect of the flow-rate of the added coagulant. The mixing and heating are carried out with simultaneous heating of the coagulant, with its temp. established in relation to the acidity. (2pp)

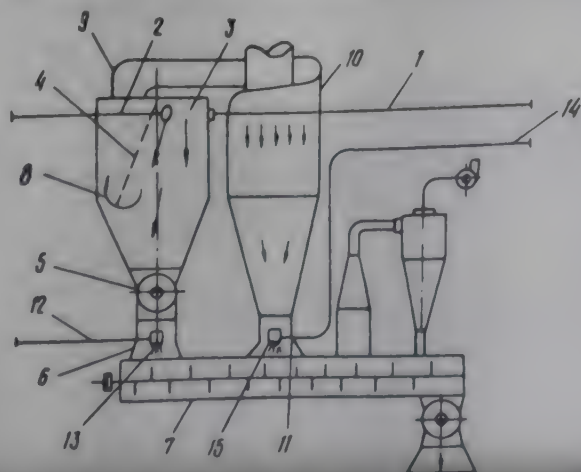
RANC = ★ D13 69524 D/38 ★ SU-793-555
 Animal feedstuffs prodn. - by dividing material into coarse and fine fractions, treating former with alkali and latter with molasses before mixing in screw-mixer

RANCH FODDER EQUIP(AGRI =) 03.08.79-SU-805454

C03 (07.01.81) A23k-01

03.08.79 as 805454 Add to 676264 (29MI)

Method for manufacturing animal feedstuff mixtures, according to Parent Cert. No. 676264, where the mixt. of dry ingredients was divided in accordance with the granulometric composition using a flow of air. This resulted in coarse and fine fractions, with the liquid ingredient added to the latter to form a mixture, to which the coarser fraction was added subsequently and the final mixture pressed. The nutritional values of the mixture are increased by treating the coarse fraction with an alkaline soln. prior to mixing it in with the fine fraction. (2pp Dwg.No.1)



RETR/ ★ D13 69601 D/38 ★ US 4286-884
 Appts. for continuous hydrolysis of keratinous material - with heated vessel operated at atmospheric pressure and further heated pressurised vessel

RETRUM R 10.01.80-US-110950 (11.12.78-US-968479)

C03 (01.09.81) A23j-01/10 B01f-07/04 C07g-07

10.01.80 as 110950 (295AS)

Keratinaceous material is continuously hydrolysed as described in the Parent Patent. It is effected using an appts. which consists of a first vessel where the material is violently agitated by paddles which rotate at 150-350 rpm. The material in the vessel is heated to a temp. less than 212 deg. F and without any significant pressure build-up.

A pump connects the outlet of the first vessel with a second vessel where the material is further agitated, heated to 265 to 365 deg. F and subjected to a pressure of 25 to 150 psig. The pump prevents escape of pressure from the second to the first vessel. A further pump discharges the hydrolysed material and some pressure from the second vessel.

Appts. is efficient, controllable and fully continuous to produce a fodder of improved nutritional value from feathers, hair, nails, etc. (10pp)

FMCC ★ D13 69665 D/38 ★ US 4287-058
 Fruit juice sepn. from slurry of pulp and seeds - by cylindrical screen and auger with controlled back pressure (BR 16.6.81)

FMCC CORP 04.12.79-US-100174

P41 (01.09.81) B01d-25/38 B04b-01/20 B04b-03/04

04.12.79 as 100174 (295AT)

A sepg. appts. comprises a cylindrical screen in which an auger is rotated to advance a slurry from an inlet end of the screen. At the downstream end of the appts. is a discharge port selectively closed by a valve to adjust the back pressure in the appts. The auger presses the liq. phase of the slurry through the screen while the solids residue is discharged through the valved port.

At the downstream end of the auger is an extension carrying paddles which direct the solids to the discharge port which is located on a non-perforated portion of the screen which surrounds the paddles. A stripper plate is associated with the port to remove debris from the paddles.

The appts. recovers fruit juice from a mixt. of juice, pulp and seeds. It may also remove particulate pulp from a wash. The appts. does not use a fixed aperture discharge port to produce the required back pressure. This eliminates the problems of the fixed aperture becoming blocked by seeds. (9pp)

IBPI- ★ D13 69739 D/38 ★ US 4287-216
 Chocolate confectionery prod. contg. dispersed carbonated candy - both components having low moisture content

IBP IND BUITONI PER 16.11.79-IT-050844

(01.09.81) A23g-09

31.12.79 as 108703 (955RH)

A confectionery prod. comprises chocolate and popping carbonated candy in wt. ratio 10:1 to 1:10. Both components contain 0.1-5 wt.% moisture; the candy is composed of sucrose, glucose, lactose, maltose or fructose, and contg. 0.1-1 wt.% of carbon dioxide, hydrogen, air or inert gas at a pressure of 1-80 atmospheres.

The compsn. combines the flavour of chocolate with the popping sensation of the candy. (3pp)

RHON D13 62885 A/35 = US 4287-219
 Meat-like, spun protein filaments - contg. finely dispersed fat particles

RHONE-POULENC INDUSTRIES 10.02.77-FR-004307

F01 (D12) (01.09.81) *NL7801-518 A23j-03

22.02.80 as 123917 (+ 08.02.78-US-876053) (963PW)

Prepn. of a shaped article is claimed comprising a spun, filamentary edible protein matrix which has dispersed in it fat-contg. globules of 1-60 microns dia. Degree of saponification of the fat-contg. material is up to 5%. Protein in the matrix is undegraded.

Process comprises mixing an edible protein gel prepd. and maintained at 2-25 (2-7) deg.C with liq. fat-contg. material to form a spinning soln; extruding soln. through shaping orifice and then into a coagulating bath to give shaped prod. Time for which the protein gel and fat-contg. material are in contact up to extrusion through orifice is up to 2 minutes (pref. 1-20 secs).

Pref. gel is an aq. alkaline soln. contg. 5-40 (10-25) wt.% protein. Fat-contg. material pref. comprises 0.5-60 (5-30) wt.% of the mixt. based on wt. of protein.

The fat is well distributed in the prod., esp. fibres. Prod. simulates meat and may be used as a substitute. (11pp)

FRIY ★ D13 69741 D/38 ★ US 4287-220
Free flowing solid compsn. contg. farinaceous waste prods. - and rice, soya or peanut hulls, useful in animal feeding

FRITO-LAY, INC 19.02.80-US-122803

C03 (01.09.81) A23k-01/14

19.02.80 as 122803 (1251NS)

A solid flowable compsn. comprises (wt.%) (A) 40-80% soyabean, rice and/or peanut hulls, and (B) 20-60% waste prods. from cooked farmaceous food prods. mfr. (B) contains 20-50 wt.% undissolved solids and 50-80 wt.% total moisture, and the final blend has moisture content 20-50%. Pref. (B) contains corn and/or potato solids, esp. at least about 10% of each, and are pref. derived from mfr. of fried potato or grain derived chips, including solids from corn steeping liquor, comminuted or slivered potatoes, and sweepings. Also new are animal feeds and feed components contg. 10-50% of this blend.

Waste prods. (B) from snack food mfr. a converted into a useful prod. of relatively high energy and good protein contents, and problems associated with their disposal are avoided. (6pp)

KRFT ★ D13 69815 D/38 ★ WP 8102-377
Thixotropic desserts with reversible gel structure - contg. gelatin, starch, sweetener, fat and protein source

KRAFT INC 27.02.80-US-125114

(03.09.81) A23c-19/09 A23l-01/04

15.09.80 as U01206 (367AT) (E) US3726690 US4254156 US3666493 US3455698 US2714069 N(JP)

Prod. of thixotropic dessert prods. which are pourable at ambient temp. and gelled at refrigeration temp. is carried out by (a) forming a homogeneous aq. mixt. of gelatin, starch, sweetener and a proteinaceous material (I); (b) adjusting the fat content of the mixt.; (c) homogenising the mixt. after the addn. of any fat source other than cream cheese or cream; (d) pasteurising the mixt.; and (e) adjusting the pH to below 4.6 and cooling to ambient temp.

Specifically, (I) is cream cheese, cottage cheese, Neufchatel cheese, casein, an edible caseinate salt or an edible soya protein salt. The prods. are esp. useful as cheese cake fillings. They have a long shelf-life, can be whipped, and have a pleasant soft non-rubbery mouth-feel. (25pp)

SUSO D13 51680 D/29 = WP 8102-420
Recovering betaine from diluted molasses - by chromatography on crosslinked sulphonated polystyrene cation exchanger

SUOMEN SOKERIOY 29.02.80-US-125991

A96 B05 C03 (03.09.81) *BE-887-652 + B01d-15/08 C07c-99/12 C07c-101/12 C13j-01/06

26.02.81 as F10014 (1251WB) (E) SE-157330 SE7604244 DS1136711 GB1448524 US2375165 US2586295 US2937959 US3214293 N(DK FI HU JP RO SU) E(AT CH DE FR GB LU NL SE)

Method for recovering betaine (I) from molasses (A) comprises first diluting (A) to solids content about 20-50% then applying to a column, flooded with water, of cross-linked polystyrene sulphonate cation-exchange resin(B). This is eluted with water to recover a (I)-rich fraction. (B) contains 2-12 wt% divinylbenzene and consists of uniform particles of mean size 20-400 mesh (US Standard Sieve).

The (I)-contg fraction is pref to about 80% solids, then seeded and crystallised at 75-95 deg C under vacuum. The resulting anhydrous (I) crystals are sepd from the residual syrup which can be recycled to the diluted molasses feed.

(I) is a feed additive for cattle, pigs and poultry and is also used in pharmaceuticals. (39pp)

FOSS- ★ D13 69840 D/38 ★ WP 8102-467
Quantitative determ. of two constituents of foodstuffs etc. - by using IR absorption photometric measurements

FOSS ELECTRIC AS N 19.02.80-DK-000723

C03 J04 S03 (03.09.81) G01n-21/17 G01n-33/02

19.02.81 as DK0018 (1248HM) (E) No-Citns. N(JP) E(AT CH DE FR GB LU NL SE)

Quantitative determ. of the content of at least 2 constituents in a solid or semisolid sample of a foodstuff or animal feed or raw materials for such prods. (that are not milk based) involves dispersing the sample and mechanically subdividing in presence of dispersing agent. Then the dispersion is used for a quantitative infra-red absorption photometric determ., comparisons being made with reference standards.

The 2 constituents are typically fat and protein, and they can be quantitatively determined with good accuracy in spite of the large number of different components that may be present in the dispersion. The procedure is easy to apply and the results of determns. are reproducible. (22pp)

See Also

D15 GB 1598389	D16 DD 149080	D16 DD 149081
D16 DD 149082	D16 NL 167594	D16 US 4287304
D21 J5 6097532	D22 EP 35161	D22 GB 1598062
D23 EP 35298	D23 J5 6098297	

D14: FOODSTUFF MACHINERY

FMCC ★ D14 D/38 ★ BR 8100-856
Single file fruit feeder for collecting station

FMCC CORP 13.02.80-US-120967

(25.08.81) A23n-15

FMCC ★ D14 D/38 ★ BR 8100-859
Fruit feeder

FMCC CORP 13.02.80-US-120965

(25.08.81) A23n-01

WESS ★ D14 68123 D/38 ★ DE 3008-132
Fruit flesh and skin separator - with contra-rotating centrifuge basket and hammer mechanism (PT 19.8.81)

WESTFALIA SEPARATOR AG 04.03.80-DE-008132 (00.00.77-DE-750787)

(D16) (10.09.81) A23n-04

04.03.80 as 008132 Add to 2750787 (39BZ)

The Parent Patent No.2750787 described a machine for the continuous separation of the flesh of fruits from the skin, specially for grapes in the wine production, by a rotor with radial hammer heads, surrounded by a centrifuge basket. It is now suggested to run the centrifuge basket at a slower speed than the hammer heads, at a ratio varying from 2:1 to 4:1. Both revolve pref in opposite directions; a scanning device cuts out first the hammer mechanism and then the basket when the speed becomes excessive.

This creates an adequate difference between the peripheral velocities of basket and hammers to peel off the skin, but keeps the hammer velocity low enough not to crack the pips. (17pp)
Dwg. No.21

CGRR ★ D14 68320 D/38 ★ EP --35-445
Linear accelerator for charged particles - using metric waves, esp. for sterilising foods or pharmaceutical prods.

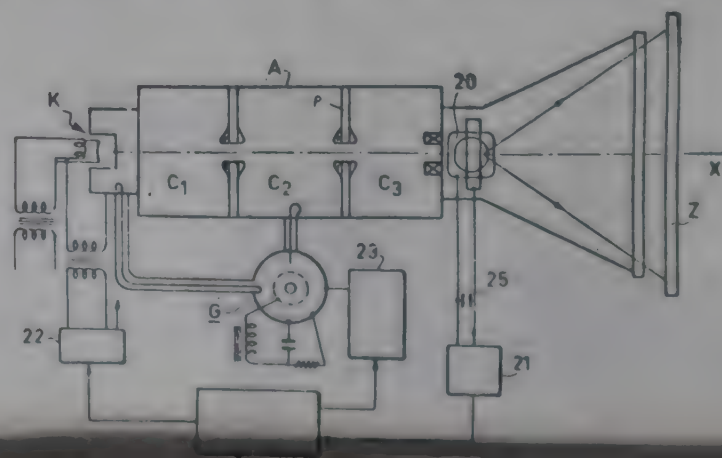
CGR MEV 04.03.80-FR-004835

K08 X14 (X25) (09.09.81) G21k-05/04 H05h-09

26.02.81 as 400295 (1144HM) (F) No-Citns. E(DE FR GB NL SE)

A generator (21) of electromagnetic waves includes a thermionic valve provided with an anode, a cathode, and at least one grid; and produces a signal injected into a linear accelerator (A) possessing a row of resonant cavities (C1, C2, C3). At least one cavity is electromagnetically coupled to the space between the grid and anode of the valve.

Accelerator (A) is fed with high voltage pulses; and the beam



from the accelerator is focussed and moved by a deflection coil so it can sweep across a target. The pref. valve is an oscillating triode (G) or tetrode; and the accelerator (A) pref. produces metric waves. A modulator is pref. used to provide a pulsed high voltage to the accelerator cathode (K).

Conventional appts. for sterilising industrial prods. uses microwaves; but the invention provides a much simpler appts. with low cost. (15pp Dwg.No.4)

ALTE- D14 02189 B/02 = GB 1597-879
Food drying cabinet with fan circulation of hot air - ensures uniform removal of moisture

ALTERNATIVE PIONEER 15.06.77-US-806774
+ P27 Q76 (16.09.81) *DE2806-989 + F26b-09/06

31.05.78 as 025582 (006BZ)

Food dehydrator is of box-like form, and has a perforated wall with spaced horizontal rows of airflow holes. Alongside the wall is a co-extensive plenum chamber housing a blower fan, and pref. an electric heater between the fan and the perforated wall.

Pref. the dehydrator box is provided with multiple spaced removable horizontal perforated food-support trays. (6pp)

KONZ-★ D14 D/38 ★HU T020-492
Split hydrostatic sterilising machine for canning plants - with waste heat utilisation and reduced water requirements

KONZERV-ES PAPRIKAI 28.03.80-HU-000730
Q74 (28.08.81) A231-03/12 F24j-03/04

KDFO=★ D14 D/38 ★HU T020-503
Appts. for classifying granular materials - in food and chemical industries separates fractions from moving belt

KRASNODARSK FOOD IN(KYPO=) 10.04.80-HU-000865
J01 P41 P43 (28.08.81) A23n-15 E03h-05/06 B07b-13/10

TOAY★ D14 69134 D/38 ★J8 1035-928
Water-dispersible granules mfr. - by mixing powdery material with soln. of cpd. which generates gas on heating, granulating and heating with microwave radiation

TOA YAKUHI KOGYO KK 00.00.73-JP-077647 (28.06.69-JP-051328)

B07 J04 (20.08.81) A61k-49/04 B01j-02 B01j-19
28.06.69 as 077647 /73 Div.ex.051328/69 (83HM)

Method comprises mixing powdery material (I) with soln. of cpd. (II) capable of generating gas by heating, granulating the mixt., and heating the wet granules by microwave of 500-3500 MC.

(I) is e.g. BaSO₄, AlSiO₃, instant coffee, powdered milk, etc. (II) is e.g. NaHCO₃, yeast, etc. The solvent for (II) has pt. lower than m.pt. of (I), and is e.g. water, (m)ethanol, chlorinated hydrocarbons, etc. The granulation can be carried out by any of usual methods. It is pref. to spray the mixt. into microwave heating chamber. The heating time is 0.1-10 min.

Used for prodn. of medicines, instant foods, etc. The granules have fine porous structure and can be dispersed or dissolved in water rapidly. (2pp)

DILU- D14 34665 W/21 = NL-167-605
Dispersal of powdered solids in liquids - in a machine giving a constant ratio of liquids to solids

DILUMELT SRL 20.03.74-FR-009512 (14.11.73-FR-040496)
J02 + P41 (17.08.81) *DE2453-810 B01f-03/12 B01f-05 B01f-15/02

13.11.74 as 014783 (160)

The system disperses a powder in a liquid, the latter being distributed in a thin layer over a supporting surface. The layer of flowing liquid is formed into a tube from the delivery point of the powder to the dispersal point by means of a throttle.

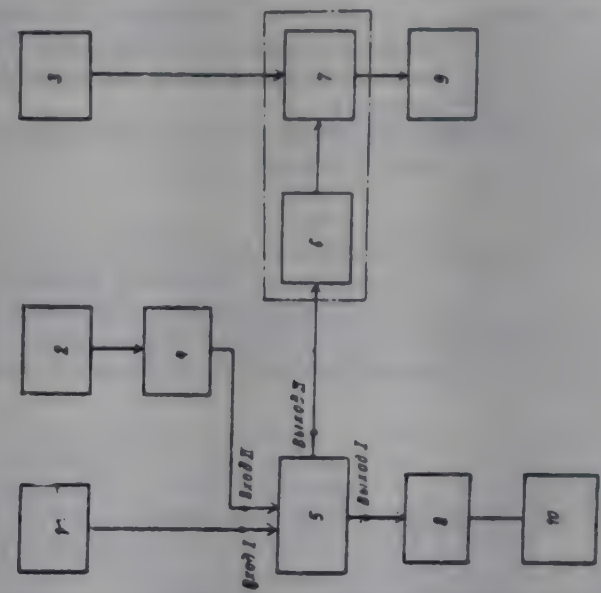
At the discharge point of the liquid, the powder is continuously delivered to the tube and enclosed by it, being directed to the throttle simultaneously with the liquid but separately from it. (6pp)

UFOD=★ D14 69263 D/38 ★SU-791-368
Combined fodder granulation control appts. - has outputs from fodder moisture measurer and count converter to logic circuit to optimise steam supply valve position in steady state

UKR FODDER IND RES 03.11.78-SU-679621
T06 X25 (30.12.80) A23n-17

03.11.79 as 679621 (840GW)

Fodder granulation control appts. contains a water content measurer (1) and a controlled (8) steam feed valve (10). Greater productivity is obtd., the quality of the granules is improved and time is saved during press start-up. By introducing a counter (2), current load sensor (3), converter (4), logic circuit (5), code setter (6) for regulator (7), and feed remote control mechanism (9), productivity is increased 18%, by relating the fodder moisture content to the kind of fodder and its quality. Bul. 48/30.12.80. (3pp Dwg.No.1)

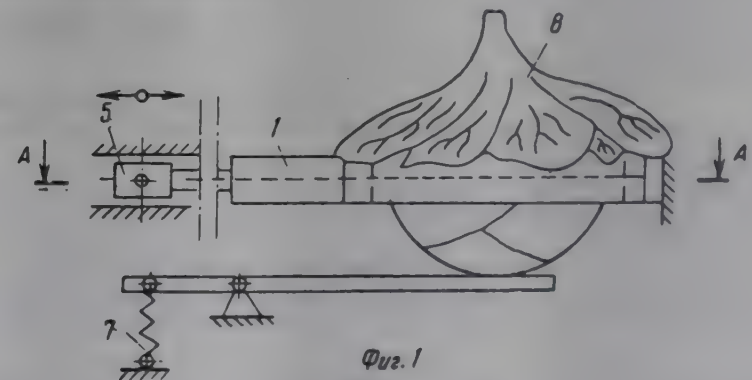


UYPE=★ D14 69515 D/38 ★SU-793-463
Separating equipment for cabbage hearts and outer leaves - has frame with loop of pliable material and actuating mechanism to tighten loop

PETROZAVODSK UNIV 02.10.78-SU-671244
P12 (07.01.81) A01d-45/26 A23n-07

02.10.78 as 671244 (29MI)

Equipment for separating the hearts of cabbages and cleaning the heads free of the outer (rosette) leaves, comprising a feeding mechanism, a base and working unit with drive. Mechanical damage to the cabbages is reduced, with combination of the cabbage-cleaning operation and the removal of the leaves, by making the base in the form of a circular frame (1), with the working unit placed inside it. The latter is made as loops of a pliable material, made so that it can vary its diameter. Underneath the frame is an attachment, made as a bracket held in place by the spring (7), to hold the cabbage in place. Bul. 1/7.1.81 (2pp Dwg.No.1)

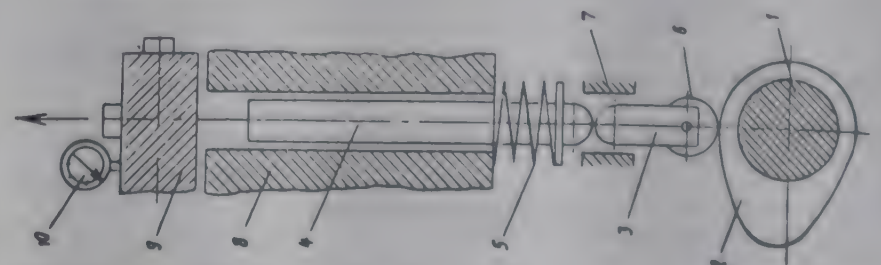


LIBU=★ D14 69518 D/38 ★SU-793-507
Milk homogeniser - has homogenising head which is acted on by plungers with return springs, lifted by cams, via roller pusher rods

LITH BUTTER CHEESE 21.12.76-SU-431090
P13 (05.02.81) A01j-11/16 B01f-03

21.12.76 as 431090 (29MI)

Homogeniser for liquid products, e.g. in the food industry, such as milk, includes an homogenising head (9), pump with plungers (4), contained inside a cylindrical block (8), drive shaft (1) and cams (2), return spring (5), attachment for reducing friction, and drive motor. The quality of the homogenisation and the working life of the machine are increased, by giving each of the cams (2) a profile which guarantees uniform motion of each plunger (during the compression stroke, conforming to the rule expressed in an equation. The attachment to reduce friction is the roller (6). Bul. 1/7.1.81 (3pp Dwg.No.1)



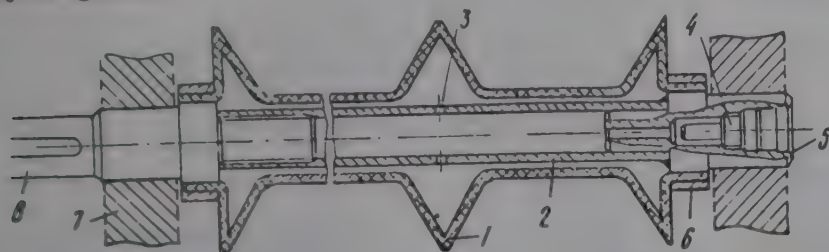
MOSN ★ D14 69525 D/38 ★ SU-793-557
Agricultural product sorting machine working unit - has hollow shaft with holes, and surrounding elastic sheath filled with working medium under pressure

MOSCOW NATECONOMY INST 22.01.76-SU-318429

P43 (07.01.81) A23n-15 B07b-13/04

22.01.76 as 318429 (29MI)

Working unit for a sorting machine, has shafts (2) with hollow elastic sheaths (1) forming calibrated openings. The quality of the sorting, as a result of regulating the sizes of the calibrated openings, is achieved by making each shaft (2) hollow with holes (3) distributed through its length. A connecting pipe (4) at one end supplies a working medium into the hollow sheath. Bul. 1/7.1.81 (2pp Dwg.No.1)



GFOO= ★ D14 69526 D/38 ★ SU-793-558
Mechanical processor for fruit - has bath with moving water, upper and lower roller conveyors with cylindrical cutters and horizontal disc knife

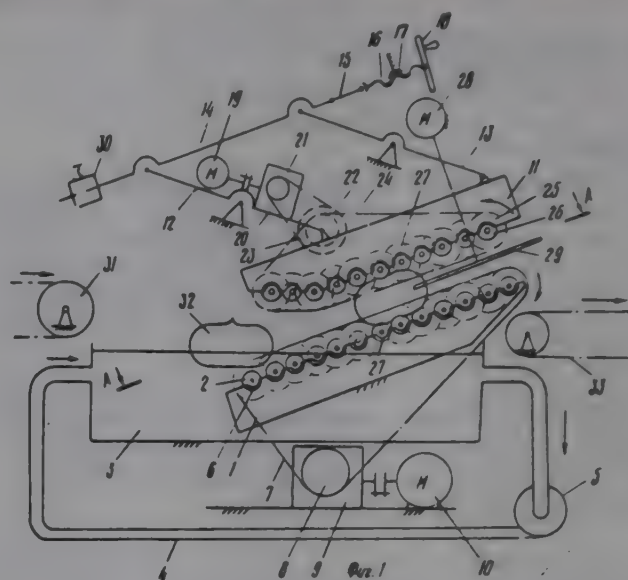
GEORG FOOD IND TECH 19.02.79-SU-728355

(07.01.81) A23n-07 A23n-15

19.02.79 as 728355 (29MI)

Machine for the mechanical processing of citrus fruits, e.g. for cutting them, has bath (3) inside which is a roller conveyor (1) with knives, and manifolds for feeding water into the bath.

Productivity is increased, as a result of processing several fruit at the same time, by mounting a second conveyor, in the frame (11) above the first, being similarly positioned and designed to hold the fruit whilst they are being cut. Knives, in the form of cylindrical cutters (27) are located between the rollers of the conveyors, with additional disc knife (29) placed horizontally between the two conveyors, to cut the fruit in halves. The top conveyor is fitted into a pivoted parallelogram so that its position can be adjusted relative to the main conveyor. (3pp Dwg.No.1)



See Also

D16 DE3006814

D15: WATER TREATMENT

MODA- ★ D15 67990 D/38 ★ BE-888-696
Treating organic material and water with oxygen - and with water at supercritical temp. and pressure during reaction

MODAR INC 08.05.80-US-147946

Q73 Q74 (28.08.81) C02f F23g F24j

06.05.81 as 888696 (597AT)

The material is mixed with water and an oxygen contg. fluid to form a homogeneous mixt. and reacted such that during at least a part of the reaction the water is at a supercritical temp. and pressure.

The process is pref. continuous using 2-25%, pref. 2%, organic material with a reaction time not above 5 mins. When the mixt. contains inorganic material esp. sea water, it is pref. heated to a sufficiently high temp. to make the inorganic material insoluble. Heat generated is pref. re-injected into the reaction and exit material is pref. recycled to the mixt. Pref. reaction conditions are above 374 deg. C and 218 atmos.

The process is used to treat toxic organic wastes, forest prods. and fossiles opt. in the presence of sea water. It enables a high rate of reaction in a simplified appts. with max. recovery of energy. (29pp)

PRIK/ ★ D15 D/38 ★ CS 8002-381
Scavenging additive for circulating system

PRIKRYL J 08.04.80-CS-002381

(30.06.81) C09k-07

SPIL/ ★ D15 D/38 ★ CS 8004-645
Elimination of solids and biochemical impurities from water

SPILKA V 30.06.80-CS-004645

(30.06.81) C02f-01

SPIL/ ★ D15 D/38 ★ CS 8004-646

Waste water tank transportation

SPILKA V 30.06.80-CS-004646

(30.06.81) C02f-03/12

SPIL/ ★ D15 D/38 ★ CS 8004-877

Piggery waste water processing processing

SPILKA V 09.07.80-CS-004877

(30.06.81) C02f-03/02

SPIL/ ★ D15 D/38 ★ CS 8004-878

Waste water purification

RUML/ ★ D15 D/38 ★ CS 8005-864
Treatment of sludge from plating works - by treatment with silicates and combustion

RUML V 00.00.80-CS-005864

M11 (30.06.81) C02f-11/10

WASS- ★ D15 68037 D/38 ★ DD-149-057
Clear sludge and liq. manure treatment - by opt. thermolysis, consecutive enzyme addn. in given sequence and separation

INST WASSERWIRTSCHA 07.05.79-DD-212681

(24.06.81) C02f-11/14

07.05.79 as 212681 Add to 140244 (200HM)

This is a Patent of addn. to 140244, which discloses a continuous clear sludge or liq. manure decomposition process by opt. thermolysis, enzyme treatment and prod. separation into stabilised sludge and a liq. phase. Improvement is that the enzymes are added consecutively in a defined sequence.

The enzymes can be proteases, brewery enzymes, lipases, amylases and celluloses. Enzyme treatment takes 5-180 min. at 10-60 deg.C and pH 6-9. Enzyme conc. is below 0.5 (0.1-0.5)%, w.r.t. dry wt. of organic cpds. to be degraded. Stabilised sludge quality is improved by aeration.

Enzyme treatment time is shortened, e.g. to 20 min. to 2 hrs. depending on enzyme. Enzyme quantity added is reduced. The process can be extended to prim. sludge treatment, is opt. continuous or intermittent and smell is reduced. (5pp)

WEBE/ ★ D15 68080 D/38 ★ DE 3007-064
Small farmyard manure gas plant - using hand pump instead of motorised paddle mixer

WEBER F 26.02.80-DE-007064 (00.00.77-DE-711146)

P11 (D16) (10.09.81) A01c-03/02

26.02.80 as 007064 (39AT)

The Parent Patent No. 2711146 described a farmyard manure gas plant of small enough size to be suitable for single farms. To make this system independent of any electric power, the paddle mixer in the manure fermentation pit, driven by an electric motor, is now replaced by a hand pump which is built into the pit at an angle and is also used to feed straw, grass and other waste into the pit.

This makes the system more suitable for farms in remote localities or in developing countries. (6pp)

GRUN/ ★ D15 68083 D/38 ★DE 3007-075
 Chemical seal water emergency desalination kit - made of collapsible plastic hose with embedded steel wire spiral
GRUNDMANN P 26.02.80-DE-007075
Q24 (10.09.81) B63j-01 C02f-01/42

26.02.80 as 007075 (39RH)

A device for the prepn of drinking water from sea water by chemical desalination is prescribed as emergency equipment for ships and aircraft in most countries. It consists of a corrugated plastic hose, with a corrosion resistant (plastic-coated) helical spring in the folds of the hose. An injection moulding technique produces a reinforced screw top for a solid connection with the filter head. The hose has a conical shape for storage in a flat folded position.

This design retains its stability and flexibility even when stored at extreme temperature conditions. It takes up little storage space. (8pp)

SCHM/ ★ D15 68161 D/38 ★DE 3028-039
 Sewage treatment system - with digestion chamber below spiralling oxidation trench

SCHMIT J 03.03.80-AT-001150

(10.09.81) C02f-03/32

24.07.80 as 028039 (39)

A sewage treatment system consists of a digestion chamber, followed by an oxidn trench. The digestion chamber is totally enclosed except the inflow and outflow pipes and has a spiral partition which forces the liquid into a swirling motion from centre to periphery.

The oxidn trench is formed in a basin which lies over the digestion chamber and is also divided by a partition into a trench shaped like an Archimedean spiral.

The result is an intensified sludge deposition rate, without any troublesome smells and without any undesirable discharge of floating scum. (8pp)

THET- D15 65005 B/36 =EP G003-879
 Water purifying appts. - including an ultraviolet source cooled by a fast moving airstream

THETFORD CORP 21.02.78-US-879204

X26 P34 (D22) (09.09.81) *EP---3-879 + A611-02/10 C02f-01/32

09.02.79 as 300196 (1358DJ) (E) DE2225984 DE2307877 DE2551622 US3356099 E(BE DE FR GB NL SE)

Liquid sanitising apparatus, e.g. for purifying water, has a duct around an elongate UV lamp, and a system passing air through a zone of the duct so that ozone is formed at high concentration, the ozonised air then being contacted with the liquid. Cooling air is passed along at least part of the lamp length at higher speed than the ozonised air to cool the lamp to a temp. for max. radiation output to be achieved.

The cooling air is pref. passed by a high-velocity flow stage part of the duct of smaller diameter than a lower-velocity contact stage which has a large diameter sleeve through which the air moves slowly exposed to radiation. (12pp)

FARB D15 69833 C/40 =EP G015-416
 Modular block for osmotic sepn. processes - of tubular form with set of plates which is twisted into position within mounting frame

BAYER AG 24.02.79-DE-907319

J01 (09.09.81) *DE2907-319 B01d-13

14.02.80 as 100748 (39BZ) (G) AU-412451 DE2632044 DE2650341 DE2717048 E(AT BE CH DE FR GB IT NL)

A modular block for osmotic separation processes is represented by a pressure permeation unit with a pressure tube, closed at the face end, and a filtration unit. The solution is admitted and discharged and the permeate is discharged through channels in the flanges. The pressure tube can be swivelled in the modular block to expose one end face so that the filtration unit can be exchanged.

The filtration unit consists of a base plate and a stack of membrane filter plates, with spacers between them and with channels in the plates carrying away the permeate.

The filtration unit can thus be exchanged with a minimum of difficulty. (10pp)

LIND- D15 58863 D/38 =EP --35-112
 Refuse and sludge mixture - converted to pressed mouldings after mixing partly oxidised and digested sludge with comminuted refuse

LINDEMANN MASCH GMB 30.01.80-DE-003177

(09.09.81) *DE3003-177 C02f-11

24.01.81 as 100513 (G) DD---1602 US3448375 DS2222657 DS2558255 CH-410803 AT-290425 2. Jnl. Ref E(AT CH DE FR LI NL)

A mixture of solid and liquid wastes which is capable of rotting, specially refuse and biologically active sludge, is prepared by oxidising raw sludge or a mixture of raw and partly digested sludge in a basin in a first stage until a first unstable equilibrium

This oxidised sludge or a mixture of oxidised and partly digested sludge is added in a second stage in fine distribution to solid refuse which has preferably first undergone a coarse reduction.

This mixture is easily processed to pressed mouldings. Quick rotting and sanitisation is achieved without smell. (31pp)

FARB ★ D15 68249 D/38 ★EP --35-243
 Flotation system and appts. - uses bell-mouthed nozzle with conical deflection element

BAYER AG 05.03.80-DE-008476

F09 J01 P41 (09.09.81) B03d-01/14 C02f-01/24 C02f-03/12

26.02.81 as 101402 (39DH) (G) No-Citns. E(AT BE CH DE FR GB LI NL)

In a flotation system, the pulp is passed in the flotation cell through a bellmouthed nozzle. A conical deflector element is arranged in the centre line of the fluid jet to produce a mixture with the gas (air) which is drawn in through the annulus. The floats are extracted in counterflow to the liquid.

Useful in the chemical industry, e.g. for the flotation of dye pigments or for de-inking of waste paper, in the sewage treatment for the removal of biosludge from biologically treated effluents. The nozzle achieves very fine gas bubbles with a minimum of turbulence and without impellers. It is simple and has two adjustable parameters, the gas flow rate and the liquid flow rate. (25pp)

LINM ★ D15 68251 D/38 ★EP --35-248
 Biological sewage treatment - in two stages with phosphorus precipitants added in first stage

LINDE AG 29.02.80-DE-007782

(09.09.81) C02f-01/52 C02f-03/12

26.02.81 as 101413 (39AT) (G) DE2321725 DE2548701 DE2640875 FR-844812 DE1642399 1. Jnl. Ref E(AT BE CH DE FR GB IT LI NL SE)

Biological treatment of sewage by the activated sludge system includes two stages with separate sludge circuits. In the first stage, the bulk of the organic pollutants is digested. In the second stage, the residue and any anorganic nitrogen compounds are oxidised. To ppte. all cpds. with a phosphorus content, bivalent iron salts and/or calcium hydroxide is added as a ppte. The agent is added at the end of the aeration tank or in the last cascade.

This combines a simple and economical removal of phosphates with a high cleaning efficiency for organic pollutants and a high degree of nitrification. (14pp)

KERJ ★ D15 68258 D/38 ★EP --35-264
 Liquid farmyard manure treatment - in algae-bacteria culture tank followed by rotifera culture tank at specified pH value

KERNFORSCHUNGS JULICH 04.03.80-DE-008127

+P14 (09.09.81) A01k-67 C02f-03/32

28.02.81 as 101469 (39RH) (G) DE2519887 DE2655614 DE2259788 E(DE FR GB IT NL)

Liquid farmyard manure is treated in two stages. A first stage with a mixed algaebacteria culture is followed by a second cleaning stage, using a rotifera culture. The former takes place in open-air basins and lasts 3-6 days at an average temp. of 18 deg.C. The pH-value of this culture is controlled (over 8.5) to prevent any increase in the rotifera population. The treatment in an aerated rotifera tank lasts 2-4 days (6-8 pH). The rotifera are finally sepd. from the clean liq.

This creates a reliable method which requires no toxic flocculants or power-consuming separators. The separated rotifera are excellent foodstuff for fish. (3pp)

CIMB- ★ D15 68370 D/38 ★FR 2475-520
 Water softening filter esp. for domestic coffee making machines - employs ion exchange resin regenerated periodically with household salt

OFF CIMBALI GIUSEPP 08.02.80-IT-020740

P28 (14.08.81) A47j-31/44 C02f-01/42

23.12.80 as 027334 (448AS)

A small water softening/purificn. unit partic. for a domestic coffee-making machine, comprises a filter element in the form of a casing packed with ion exchange resin. The element has an outlet connection which is removably coupled to the water inlet of the machine. The inlet port of the element is immersed in water in the machines water tank.

Pref. the resin is retained in the casing between one perforated screen at the outlet end and a second perforated screen at the inlet end. For regeneration of the resin, the element is removed from the tank, inverted, and placed beneath a water tap. A quantity of sodium chloride is palced in a funnel on top of the inlet screen. Tap water is run through the funnel to dissolve salt and carry it through the resin. This back-flushing also cleans the resin.

Used for softening water partic. to prevent scale formation in the boiler of a coffee making machine. The softener is small

enough and cheap enough to be viable for fitting inside the water tank of domestic coffee making machines. (8pp)

AGRI-★ D15 68412 D/38 ★GB 1597-966
Scrubbing foul air with oxygenated water - in presence of active biological material

AGRICULTURAL BY-PRO 11.05.77-GB-019805
J01 (16.09.81) B01d-53/34

31.05.78 as ----- (295BZ)
Fouled air is scrubbed by spraying it with oxygenated water in the presence of active biological material. The dissolved oxygen content of the water is above 50% and pref. above 75% of the satd. value at inlet temp. of the scrubber. Pref. the scrubber is a vertical cylinder with countercurrent flows of water and air. Pref. the water is recirculated through a pond which contains an aerator which also promotes biological growth.

The appts. treats foul air e.g. from an offal cooker. (5pp)

LONG-★ D15 68417 D/38 ★GB 1598-103
Cleaning semi-cylindrical screen with rotating scraper - with spring loaded rakes on radial arms

LONGWOOD ENG CO LTD 09.03.78-GB-009292
(16.09.81) C02c-01/22

09.03.78 as 009292 (295BZ)

A semi-cylindrical screen is constructed from semi-circular bars. The bars are cleaned by a rotating scraper assembly which carries a set of rakes which contact the screen bars. Each rake is pivoted to the scraper arm and is biased by a coil spring to contact the screen. If an obstruction is encountered, the rake yields against the bias of the spring.

In an embodiment, the scraper assembly has two diametrical arms, each of which carries a set of rakes.

The appts. cleans a screen used in a storm water overflow. If any of the rakes encounters an obstacle, it yields but the other rakes remain in contact with the screen. (5pp)

LONG-★ D15 68419 D/38 ★GB 1598-130
Clearing inclined screen bars by scraper - with independent rakes yielding on contact with obstruction

LONGWOOD ENG CO LTD 16.03.78-GB-010429
Q42 (16.09.81) B01d-35/28 E03f-05/14

16.03.78 as 010429 (295AS)

A screen composed of an array of parallel bars inclined to the vertical, is cleaned by a scraper assembly which is reciprocated vertically over the bars. The scraper has typically 3 independent rakes which are mounted on a common frame which is reciprocated. The frame tilts on the downward stroke to move the rakes out of contact with the bars but on the upward stroke the rakes contact the bars unless an obstruction is met.

If any rake is obstructed, it pivots on the frame to bypass the obstacle while the other rakes remain in contact with the bars. Gravity acts as the bias to hold the rakes against the bars. Counterweights can be attached to the rakes to increase the bias.

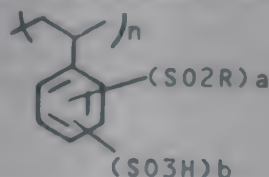
Appts. removes debris from the screen of a pumping station. An obstruction due to a tree branch at one part of the screen does not affect the cleaning of other parts. (6pp)

ROHM D15 05441 B/03 = GB 1598-389
Crosslinked anion-exchange resin - with styrenyl side-rings carrying sulphonamide gps., prepd. from chlorosulphonated intermediate prods.

ROHM & HAAS CO 17.04.78-US-897067 (27.06.77-US-810340)
A91 B04 E19 (A13 D13 D17) (16.09.81) *NL7806-891 C08f-08/32

26.05.78 as 023074 (974JB)
Novel crosslinked synthetic polymeric anion exchange resins have pendant substd. styrenyl rings with an ave. of 0.7-7.0 SO₂R and 0-0.4 SO₃H gps. per pendant styrenyl ring. R is a polyamine or quat. amine salt, ether contg. a single prim. or sec. amine gp. linked to the SO₂. R contains at least one tert. amine or quat. ammonium functional ion exchange gp. The resins are free from sec. crosslinking.

Pref. the resins are of formula (I) where a, b and R are as defined above and n is undefined. (15pp)



FOVA-★ D15 D/38 ★HU T020-479
Improving sandy soils by adding organic contg. layer - utilising sewage sludge opt, with additives

FOVAROSI CSATORNAZA 16.03.79-HU-FO0818
C03 P11 C04b-01/22

NICH-★ D15 68582 D/38 ★J5 6095-509
Rapid dissolution of a polymeric coagulant in water - by first pre-wetting coagulant with water soluble solvent, e.g. ethanol

NICHIREKI KAGAKU KO 30.12.79-JP-171495
A97 J01 (06.08.81) B01d-21/* C02f-01/56 C08j-03/08

30.12.79 as 171495 (51NS)

The method comprises wetting the aggregating agent with at least one water-soluble solvent viz. polyethylene glycol, (m)ethanol, propylalcohol, or butylalcohol to obtain a wetted agent or dispersing the aggregating agent in the solvent to obtain a suspension, and dissolving the wetted agent or the suspension in water to rapidly dissolve it.

In an example, 100wt.% parts of a cationic polymer aggregating agent was dissolved in 30-40 wt. pts. of a water-soluble solvent of polyethylene glycol to obtain a mixt. The mixt. was added to water and stirred for 5-30 mins. to obtain an aq. soln. contg. 10wt.% of the aggregating agent.

The aggregating agent is completely dissolved in water to obtain an aq. soln., which is viscous and transparent. (4pp)

ARAK★ D15 68639 D/38 ★J5 6095-906
Amphoteric copolymer mfr. - by transamidation of polymer contg. unsatd. acid amide, nitrile and monomer with a poly:amine

ARAKAWA KAGAKU KOGYO 28.12.79-JP-172657
A14 F09 (A97) (03.08.81) C08f-08/32 D21h-03/38

28.12.79 as 172657 (57RH)

Process comprises transamide reacting (a) a copolymer consisting of 40-75 mol.% of alpha, beta-unsatd. acid amide, 25-60 mol.% of alpha, beta-unsatd. nitrile and 0-10 mol.% of other copolymerisable monomer with (b) polyamine of the general formula, H₂N-A-NR₁R₂ or H₂N-(CH₂CH₂NH)_n-H (where A is 2-8C alkylene gp; R₁ and R₂ are H or 1-4C alkyl n is 1-5), in aq. medium.

Copolymer is useful as additive for mfg. paper, such as paper reinforcing agent, water filtration improver, filler yield improver, etc., It is also used effectively as flocculant to clarify organic or mineral aq. suspension or as reinforcing agent for wood or mineral fibre board.

As the polyamide, ethylene diamine, propylene diamine, butylene diamine, diethylene triamine, triethylene tetramine, etc. are cited. The transamide reaction is carried out in aq. medium with pH 8-12 at 20-100 deg.C. pref. 60-90 deg.C. for 0.5-10 hours. (9pp)

NIIG★ D15 68779 D/38 ★J5 6096-713
Removal of ash from activated carbon - by mixing with water to dissociate fine ash particles and activated carbon, then effecting sepdn.

NIIGATA ENG KK 29.12.79-JP-172818
E36 J01 (05.08.81) C01b-31/08

29.12.79 as 172818 (96RP)

Process for separating and removing ash mixed in activated carbon regenerating appts. e.g. wet-type oxidn. regenerating appts., comprises diluting activated carbon contg. relatively fine ash with clear water so that interfacial electrokinetic potential of ash particles is increased and activated carbon and ash particles are dissociated, and then separating and removing ash by utilising the difference of sedimentation rate between the activated carbon and the ash.

The process makes it possible to effectively separate and remove relatively fine ash from activated carbon obtd. with inexpensive operation and the activated carbon obtd. exhibits a good absorbing capability. (6pp)

TOAD-★ D15 68788 D/38 ★J5 6096-755
Cement additive for solidifying aq. organic sludge - prepd. from calcium and sodium aluminate

TOA DORO KOGYO KK 29.12.79-JP-171418
L02 P43 (05.08.81) B09b-01 C04b-07/35

29.12.79 as 171418 (34BZ)

Cement additive for solidification of organic sludge contg. a large amt. of water and organic matters comprises 100 wt. pts. of 12 CaO.7Al₂O₃ and 10-100 wt. pts. of Na₂O.Al₂O₃. The cement additive is prepared by mixing 12 CaO.7Al₂O₃ and Na₂O.Al₂O₃ that is calcined at 800-1,200 deg.C. pref. 1,000-1,10 deg.C to form solid soln. (1% of Na₂O₃.Al₂O₃ is dissolved in 12 CaO.Al₂O₃). Calcium sulphoaluminate hydrate is rapidly formed even in the presence of organic matters. Bauxite or Al sludge discharged from Al-processing plant is used as Al material, CaCO₃ or lime is used as calceous material, and Na₂CO₃ or Na₂SO₄ is used as Na source.

Opt. further gypsum can be added pref. anhydrous gypsum etc. and lime e.g. CaO. or Ca(OH)₂. to the aluminate cpd. In this case, the amt. of anhydrous gypsum is 50-300 wt. pts. pref. 80-200 wt. pts. and the amt. of lime is 10-100 wt. pts. pref. 20-100 wt. pts.

HIRA/ ★ D15 68816 D/38 ★ J5 6096-790
 Prodn. of high activity catalyst for purifying drinking water etc. - by impregnating ceramic material with colloidal soln. of platinum and/or palladium then heating at high temp.

HIRAI H 05.01.80-JP-000211

J04 (05.08.81) B01d-53/36 B01j-23/40 B01j-37/02 C02f-01 C04b-41/06

05.01.80 as 000211 (170RP)

Ceramic body is impregnated with colloidal soln. of Pt and/or Pd, then heated at high temp. The body is pref. a ceramic having high resistance to low and high temps. and to acids. Usually Pt and/or Pd are used in amt. of 5-8 mg per 10 sq./cm² of the surface of ceramic body. Raw materials of ceramic body are made in the form of plate, cylinder, tube, rod, etc. and fired at 800 deg.C, then immersed in the soln. of colloidal Pt and/or Pd, then heated at above 1250 deg.C.

Ceramic body having high catalytic activity for both of oxidn. and redn. is prepd. The ceramic catalyst is useful for the purificn. or quality improvement of drinking water, drinking foods, hot spring water, medicines, industrial chemicals, industrial water, waste water, exhaust gas, etc. (2pp)

HIRA/ ★ D15 68817 D/38 ★ J5 6096-791
 Mfr. of ceramic body carrying radioactive and catalytic substances - by immersing ceramic in liq. contg. alpha-source and emissivity regulator, then impregnating with noble metal colloidal soln.

HIRAI H 05.01.80-JP-000212

J04 K08 (05.08.81) B01d-53/36 B01j-23/56 B01j-37/02 C02f-01 C04b-41/06

05.01.80 as 000212 (170RH)

Ceramic body is immersed in a liq. contg. radioactive substance emitting alpha-rays and its emissivity regulator and dried, then infiltrated with a soln. of colloidal Pt and/or Pd and treated with heat at high temp.

Ceramic body having radioactivity and high catalytic activity for oxidn. and redn. is prepd. The ceramic body is useful for the purificn. or quality improvement of drinking water, drinking foods, hot spring water, medicines, industrial chemicals, industrial water, waste water, exhaust gas, etc.

For the ceramic body, fire-resisting, acid-resisting raw materials are made in the form of plate, cylinder, tube, rod, etc. and burnt at a temp. about 800 deg.C, then radioactive substance and Pt and/or Pd are made supported on it, and heat-treated above 1250 deg.C. Pt and/or Pd are used usually in amts. of 5-8 mg per 10 cm² of the surface of the ceramic body. Typically, for radioactive substance, uranium ore or yellow cake having 500-5000 count/min. (by Geiger counter) is ground to 1-3 microns particle size. It is used usually in amts. of 8-12 g (in terms of the mixt. with emissivity regulator) per 10 cm² of the surface of ceramic body. (4pp)

NICH- ★ D15 68926 D/38 ★ J5 6097-510
 Aggregating agent composite - comprising fibres, polymer type-aggregating agent and as wetting agent, a water-soluble solvent

NICHIREKI KAGAKU KO 30.12.79-JP-171494

A97 J01 (06.08.81) B01d-21/*

30.12.79 as 171494 (51RH)

The composite consists of a fibre, a polymer type aggregating agent, and a wetting agent. The wetting agent is a water-soluble solvent consisting of at least 1 of liquid polyethylene glycol, methanol, ethanol, propanol, or butanol. The fibre consists of asbestos, glass, wool, cotton, paper, pulp, polyester, polyamide, polypropylene, or polyvinyl chloride.

Its prodn. comprises wetting the fibre with the wetting agent to obtain a wetted fibre, and mixing the wetted fibre with a powder of the aggregating agent to produce the aggregating agent composite.

When the aggregating agent composite is added to water, dispersion of the fibre contained in the composite and dissolution of the aggregating agent contained therein are rapidly carried out.

In an example polypropylene fibre was mixed with polyethylene glycol to obtain a mixt. A cation system polymer type aggregating agent was sprayed to the mixt., and mixed with it to produce an aggregating agent composite. (5pp)

VODO= ★ D15 D/38 ★ J5 6097-512
 Sludge removal automatic control for sewage
 VODOKANAL WATER-CAN 28.12.79-SU-853257
 (06.08.81)

NIEN- ★ D15 68927 D/38 ★ J5 6097-513
 Separator e.g. for waste water contg. sludge - comprises tank having inner filtering surface with porous filtering tube located in tank

NIPPON ENVIRO KOGYO 29.12.79-JP-173484

J01 (06.08.81) B01d-23/02

29.12.79 as 173484 (26PW)

A method and appts. are claimed for sepg. a mixture into a solid and liquid, such as dirty water containing sludge at high conc. The appts. comprises a tank having a filtering surface at the inner surface, and a porous filtering tube located in the tank. The object is to filter the mixture, without clogging of the tube.

A filter cloth is laid on the inner surface of the tank. After closing a drain port of the tube, the mixture is fed into the tank and sepd. into the solid and liquid through the filter cloth. The solid is pptd. Then the drain port is opened to feed the sepd. liquid into the tube, and the liquid is filtered. (3pp)

MARU- ★ D15 68928 D/38 ★ J5 6097-517
 Water-oil mixt. filtering medium - comprises corrugated porous sheet of insoluble water-absorptive gel

MARUTOMO KOKEN KK 31.12.79-JP-172698

J01 P73 (06.08.81) B01d-39/16 B32b-29

31.12.79 as 172698 (26AT)

Medium for filtering a water-oil mixt. has a shape like corrugated cardboard and is inserted into a flat oil separator unit.

The novelty is that a porous sheet of an insoluble water-absorptive gel is corrugated and laid on a base sheet. Each side edge of the corrugated sheet is pressed to flatten each end of each corrugation to form a flat side zone and covered with an adhesive tape to adhere the flattened section of the corrugated sheet to the base sheet. Otherwise, the edge of the base sheet is wound with the flattened section to form a closed side edge. (2pp)

MITN ★ D15 68941 D/38 ★ J5 6097-598
 Descaling agent for pipes in sea water treatment plant - comprises hydrogen peroxide and biguanide polymer (salt)

MITSUBISHI GAS CHEM IND 07.01.80-JP-000463

A97 (06.08.81) C02f-05 C23f-14

07.01.80 as 000463 (23)

The agent consists of H₂O₂ and a biguanide polymer of formula (I) or a water soluble salt of (I).

(I) is $-X-N(R)-C(:NH)-NH-C(:NH)-NH-Y-N(R)-C(:NH)-NH-C(:NH)-NH-$

R is H or hydrocarbon group, X or Y or is 3-12C alkylene gp. 0.05-100 (0.1-50) PPM H₂O₂ is added to sea water to be treated and 0.05-100 (0.1-50) PPM, of (I) (water soluble salt) is added.

In an example sea water at 10 m³/hr and 0.3 m/s was used as cooling water in an iron works positioned on the coast. 0.1 PPM of H₂O₂ was added as an aq. soln. contg. 35 wt.% of H₂O₂ to the sea water, and 0.5 PPM of the water soluble salt of the biguanide and HCl was added as an aq. soln. contg. 20 wt.% of the salt to the sea water. Deposited scale did not form on the inner surfaces of the cooling plant of the iron works. (9pp)

HITG ★ D15 68942 D/38 ★ J5 6097-599
 Soft water prodn. - by adding calcium carbonate slurry contg. alkali metal carbonate to adjust pH

BABCOCK-HITACHI KK 09.01.80-JP-000547

J01 (06.08.81) C02f-05/06 C23f-14

09.01.80 as 000547 (51KB)

Method comprises removing Ca²⁺ from supernatant liquid exhausted from a thickener of a wet process type waste gas desulphurising appts. to obtain soft water. The improvement comprises adding slurry of CaCO₃ with alkali metal carbonate, such as Na₂CO₃, to the supernatant liquid, thereby adjusting pH of the liquid to above 8.5 for 30 minutes to ppte. solid substances (CaCO₃), and sepg. the pptd. solid substances from the liquid to obtain soft water.

Waste water is introduced from the waste gas desulphurising appts. to a thickener to obtain supernatant liquid. Na₂CO₃ and a slurry is added to the supernatant liquid in a reaction tank to ppte. solid substances (CaCO₃). The pptd. solid substances are sepd. from the liquid in a thickener to obtain soft water. (3pp)

TSUH ★ D15 68943 D/38 ★ J5 6097-600
 Waste sludge treatment - by adding aggregating agent, fibres and silicon oil emulsion to sludge and drying

TSUKISHIMA KIKAI KK(NICH-) 30.12.79-JP-171210

A97 (06.08.81) C02f-11/14

30.12.79 as 171210 (51KB)

Method comprises adding a polymer type aggregating agent of a mixt. of a polymer type aggregating agent and a surfactant a fibre and (c) a silicon oil emulsion to a waste sludge to obtain aggregated solids from the sludge, and dehydrating the

maintained at a level higher than the critical adsorption conc. (III).
(II) is obtd. by calcination at 400-700 deg.C. e.g. (450-600 deg. C), of magnesia prepd. by heat-decompsn. of Mg hydroxide, Mg carbonate, Mg hydroxy carbonate, etc. As (III) changes according to the adsorption-condition, (III).
The elution of Mg ions from (II) is suppressed when the conc. of (II) in the soln. is higher than a certain value (II). It is possible to remove (I) to very low concn. (J55054005) (6pp)

AGEN D15 39284 C/22 = J8 1035-958
Simultaneous removal of ammonia and organic material from effluent - by adding gas, e.g. steam, air, nitrogen etc. in presence of magnesia type adsorbent

AGENCY OF IND SCITECH 14.10.78-JP-126395
(20.08.81) *J55054-083 C02f-01/28
14.10.78 as 126395 (34RH)
Method comprises admitting gas, e.g. steam, air and nitrogen etc. in the presence of magnesia-type adsorbent, obtd. by heat decomposition of Mg(OH)₂, Mg carbonate, and basic Mg carbonate, so that the ammonia component is expelled and simultaneously the organic matters are adsorbed on the adsorber.

Adsorbent has granular size of less than 60 mesh, preferably less than 200 mesh and apparent density 0.47-0.37, and exhibits excellent settlability in aq. soln. Further this adsorbent is increased in its volume without any damage on adsorbability by adding at least 1 of kaolin, Fe₂O₃, CaO and Al₂O₃. By the removal of ammonia, adsorbability of the magnesia adsorbent against the organic matters is improved. (J55054083) (5pp)

SNAM D15 92386 X/50 = NL-167-661
Desalination of sea water by evapn. - with preheater in tube inside brine tank of each stage to reduce dimensions

SNAMPROGETTISPA 06.06.75-IT-024079
(17.08.81) *BE-842-201 + C02f-01/08
04.06.76 as 006129 (160PW)
The water desalination plant comprises a vertical cylindrical column with a topmost first evaporation stage supplied with primary steam and preheated seawater, and a lowermost and last such stage with condensate and concentrate outlets. Between these stages are intermediate ones, each with a supply tank. The preheated seawater discharges into the first stage tank. Each stage contains tubes mounted vertically in a steam chamber between top and bottom plates to form a surface evaporator, leading from the tank to a separation chamber below.

Each separation chamber is connected via a drop separator to the steam chamber of the stage below, each stage having a heat exchanger in the seawater feed pipe forming a preheater. In each intermediate stage, there is a single surface evaporator whose tubes fit in a bottom plate extending for the entire column width, and lead into a vessel secured at the top to this plate and at the bottom to the top plate of the next stage. The vessel is divided by a wall with liquid apertures into a separation chamber for the lower tube ends and which is connected via the drop separators to the steam chamber of the next stage; and into a liquid tank underneath for the evaporator of the next stage. The preheater in each intermediate stage is in a pipe running diametrically through the tank and connected to the next stage steam chamber at each end. (4pp)

NIDE D15 48999 V/27 = NL-167-662
Removal of heavy metal impurities from aq effluents - by adding alkalis and introducing oxidg. gas to ppte ferromagnetic iron cpds, absorbing heavy metals, and removing these cpds magnetically

NIPPON ELECTRIC KK 10.04.73-JP-041172
(17.08.81) *DE2363-291 C22b-07 + C02f-01/64
08.04.74 as 004782 (922DJ)
Metal ions-contg. waste water is purified simply by adding sufficient base to form 0.9-1.2 times the equivalents of the total equivalents of all the acid gps. present, adjusting the amt. of ferrous ion present to at least twice the total molar quantities of other heavy metal ions present, oxidising the suspension of ferrous hydroxide formed by bubbling through an oxidising gas at 10-100 deg.C so as to form a ferromagnetic crystalline ppt. in which the other heavy metals have been occluded and removing this ppt. by magnetic means from the liq. (7pp)

HENK D15 35586 S/21 = NL-167-700
1-aminoalkane-1,1-diphosphonic acids (salts)
HENKEL KG AUF AKTIEN 19.11.69-DE-958123
E11 (D25) (17.08.81) *DE1958-123 C07f-09/38
15.10.70 as 015156 (922DJ)
1-Amino-alkane-1,1-diphosphonic acids/salts are produced more simply by reacting a phosphorus trihalide with a monocarboxylic acid amide having a m.wt. of less than 46 and the formula R1-CO-

NR2R3 (where R1 is H, alkyl or phenyl and R2 and R3 are (ring-forming) organic gps. or H), hydrolysing the product and opt. converting the acid to a salt.

The pref. reagents molar ratio is 1:1 and the products are useful in water softening applications or as detergent builders. (9pp)

DIDI D15 11010 S/06 = NL-167-784
Recycling and recovering rinsing water - from scowling workpieces for plating

DIDIER-WERKE AG 09.12.69-DE-961562
M12 (17.08.81) *BE-754-457 C23g-01 + C23c-01 C23f-17
09.12.70 as 017989 (160PW)
The method coats items by dipping in a metal bath, the items being previously passed through a pickling and flushing bath. The contaminated liquid in the flushing bath is cleaned by neutralisation, followed by separation of precipitated solids.

The liquid flowing through the flushing bath is extracted and passed to the neutralisation station, where sufficient ammonia carbonate are added to bring the pH above 7. The liquid is then passed to a sedimentation station for separation of the solids, after which part of the cleaned liquid, supplemented by fresh water, is returned to the bath. The other part is directed to a liquid bath connected after the flushing bath. (4pp)

ALLM ★ D15 D/38 ★ SE 8000-757
Ion-exchange resins for use in nuclear reactors - contain beads with exchangeable hydrogen ions and others with exchangeable hydroxy ions

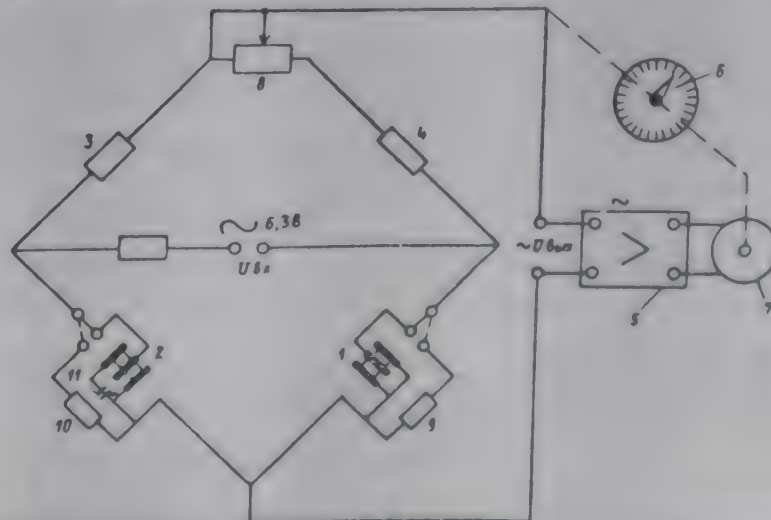
ASEA-ATOM AB 31.01.80-SE-000757
A91 K05 (31.08.81) G21f-09/12
31.01.80 as 000757 (903WB)
Ion-exchange resins for use in the cleaning circuit of a nuclear reactor consist of two types of resin, one contg. exchangeable H ions and one contg. exchangeable OH ions.

They are used for the treatment of effluent water from the reactor.

SEME/ ★ D15 69239 D/38 ★ SU-783-671
Unit for measuring micro-concn. of chemical reagents in natural water - uses sensors to detect change in conductivity between natural water and water with salt impurities added

SEMENOV R V 08.01.79-SU-710333
J04 S03 (30.11.80) G01n-27/22
08.01.79 as 710333 (1503GW)
The device is concerned with the measurement of the conductivity of natural water and with the protection of the environment. To increase sensitivity and accuracy of measurement, the comparison sensor includes an alternate capacitance, which only switches in the operating mode. The unit consists of a four-armed bridge, measuring sensor (1) comparison sensor (2), resistances (3,4), amplifier (5), automatic recorder (6), reversible motor (7), rheochord (8), resistance sensors (9,10), and variable capacitance (11).

A flow of natural water through both sensors causes an equilibrium and a disbalance signal of zero in the measuring diagonal. Water with added salt components then flows through the measuring sensor and the change in the conductivity causes a disbalance signal, which passes via amplifier to the recorder. By means of the motor the rheochord re-establishes the equilibrium in the bridge. The increase of the specific conductivity of the liquids brings about a difference in their active resistances. A capacitance resistance, equivalent to the capacitance resistance of the measuring cells, is created in the variable capacitance (11), and by differential methods the conductivity is calculated. Bul. 44/30.11.80. (2pp Dwg. No. 1)



UCAR = ★ D15 69268 D/38 ★ SU-791-394
Flocculant for beneficiating coal muds - contains styrene, butadiene and emulsifier
 UKR CARBON CHEM INS 20.04.79-SU-757441
 A97 J01 (A12) (30.12.80) B01d-21/* C02f-01/54
 20.04.79 as 757441 (314VE)

Flocculant for coal, coke and mineral dressing comprises (in wt.%): styrene 5-55, butadiene 40-90 and emulsifier the balance. The flocculant displays high selectivity towards coal mud. Suitable emulsifiers are sulphonols and synthetic fatty acids.

The flocculant is made by polymerising the styrene and butadiene in an aq. emulsion at 50 deg.C. The resulting flocculant is pptd. at 20-30 deg.C. (3pp)

AGMI = ★ D15 69280 D/38 ★ SU-791-415
Removal of organic impurity from waste water - using compsn. contg. porous carrier and paraffin wax and surfactant
 AS GEOR MINE MECH 13.03.78-SU-592679
 J01 (30.12.80) B01j-39/08 C02f-01/28
 13.03.78 as 592679 (114VE)

Compsn. for removing organic impurities (e.g. dissolved ions and molecules, micelles and drops) contains surfactant to intensify and economise purification process. The proposed compsn. is (in wt.%): surfactant 0.001-0.3; paraffin 5-20; porous carrier to 100. The proposed method lowers duration to 2 hrs. (previously 27-35 days).

Typically, compsn. contg. (in wt.%): organic amine 0.001; paraffin 5; water to 100, is used to purify water contg. 20 g/l. kerosene under static conditions (ie. without stirring) and gives purification duration 2 hrs.; degree of purification 95%. Bul. 48/30.12.80. (2pp)

RIVI/ ★ D15 69301 D/38 ★ SU-791-587
Active chlorine photometric determ. in chloride salts and aq. waste - by its bleaching effect on mohl's salt, potassium ferricyanide tri-valent iron salt and sodium fluoride in sulphuric acid soln.

RIVINA Z M 19.02.79-SU-728425
 E36 J04 S03 (30.12.80) C01b-07/* G01n-21/27
 19.02.79 as 728425 (815VE)

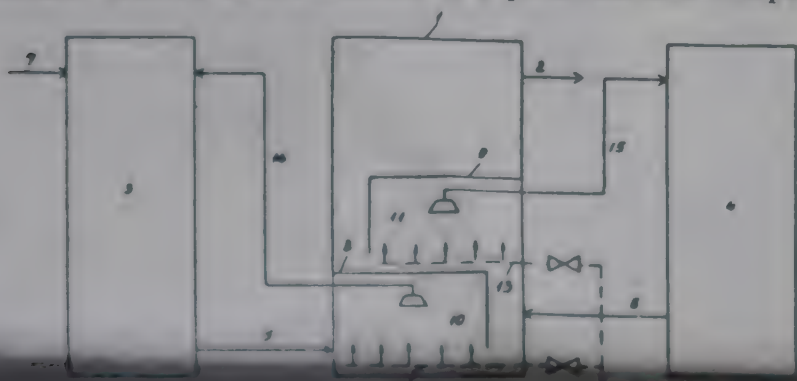
Free Cl is determined colorimetrically in presence of chlorides by its bleaching effect on a reagent of a soln. of Mohr's salt and potassium ferricyanide mixed with a soln. of ferric iron ions and NaF in a medium of 0.6-0.7N sulphuric acid. The ratios of the reagents are the Mohr salt:ferricyanide 1:5-10 and the ferric iron : NaF 1:2-3.

The method is used for quality control of chloride salts and determ. of Cl in aq. wastes, and shows high selectivity and reproducibility compared to the previous method using methyl orange as the reagent, which was affected by the acidity of the soln., the nature of the buffer, the rate of addn. of the reagent, and the presence of other agents capable of a bleaching effect. Bul. 48/30.12.80. (4pp)

AUSS = ★ D15 69320 D/38 ★ SU-791-606
Oil-contg. water and effluent bio-purificn. appts. - has pretreated liq. gravity fed to vertical receptacle with bent partitions secured alternately on opposite walls to trap impurities
 AS UKR S SEA BIOLOG 16.02.79-SU-726806
 H05 J01 (30.12.80) C02c-03/02
 16.02.79 as 726806 (840GW)

Appts. for bio-purificn. of oil-contg. aq. waste includes a vertical receptacle (1) divided into sections by transverse partitions, overflow pipes, aerators (12,13) and an active sludge receptacle (4) with return pipe. It can be used to collect and separate oil and oil prod. impurities from sea or fresh water, and for decontaminating effluents in oil-refining and petrochemical industry. By making the partitions (9,10) with bent down tips and securing them alternately on opposite walls, time is saved by prompt removal of the light impurities.

Another feature is introduction of a pretreatment receptacle



(3). The overflow pipe (14) of the lower section (10) communicates with the pretreatment receptacle, and the overflow pipe (15) of the upper section (11) with the active sludge receptacle. The return pipe (6) for superfluous active sludge communicates with the upper section. (3pp Dwg.No.1)

KEKA = D15 49355 B/27 = SU-791-608
Treating waste water from phenol-formaldehyde resin mfr. - by heating with formaldehyde, alkali and phenol formaldehyde condensate

KEMER KARBOLIT COMB (KECH) 26.12.77-SU-560372
 A21 (A97) (30.12.80) *DE2845-727 + C02f-01
 26.12.77 as 560372 (114VE)

Purification of resinified water from phenolformaldehyde (PF) resin prodn. by condensn. with HCHO in presence of alkaline catalyst increases degree of removal of basic monomers and eliminates waste by adding 15-20 pts. wt. (per 100 pts. wt. of resinified water) of emulsified PF resin and condensing at 65-85 deg.C.

The prod. is a 20% aq. soln. of phenolic-alcohol and is suitable for impregnating wood-fibre board.

Resin produced by previous and proposed method respectively contains free phenol 1 and 0.01-0.04%; free HCHO 0.4-0.8 and 0.03-0.07%. (3pp)

GIPR = ★ D15 69321 D/38 ★ SU-791-611
Purifying petroleum-contg. waste water - by flotation after treating with water contg. hydrocarbon gas from gas-satd. petroleum

GIPROVOSTOKNEFT 26.06.78-SU-632751
 J04 (30.12.80) C02f-01/24
 26.06.78 as 632751 (114VE)

Purificn. of petroleum-contg. waste water (by mixing with water satd. with hydrocarbon gas (under high press.) and flotation) is simplified by saturating the water-reagent by mixing it with petroleum satd. with hydrocarbon gas (pref. under 2-27 kg/sq.cm. press.).

The water-reagent is mixed with gas-satd. petroleum (passing to technological water and salt removal stages). After stratification the gas-satd. water (contg. 2-20 vol.% gas) is removed and used to treat waste water. For successful flotation the water-reagent should contain min. 1 vol.% of gas. (2pp)

DNEP = ★ D15 69322 D/38 ★ SU-791-612
Purificn. of waste water from benzene prodn. - using alkaline permanganate and peroxide flotation reagents for benzene, phenol and sulphide cpds. removal

DNEPRODERZHINSK IND 01.03.79-SU-734642
 E14 (30.12.80) C02f-01/24
 01.03.79 as 734642 (114VE)

Waste water from crude benzene prodn. (from coke oven gas) is subjected to flotation-purification to ensure simultaneous removal of benzene, phenol and sulphide cpds. by using permanganate peroxide flotation reagent in alkaline medium.

The proposed treatment gives: oxidn. of (in)organic impurities into gaseous prods.; formation of Mn-oxide flocs (which adsorb oil, benzene, alcohol and phenol); catalytic decomposition of peroxide cpd. giving active O; carbonisation of sulphides by CO2 gas (prepd. by oxidn. of impurities, oils etc.). The waste prods. may be blown away. The oxidn. process takes place throughout the entire waste water and so accelerates the purification process. (3pp)

DNEP = ★ D15 69323 D/38 ★ SU-791-613
Flotation-purification of waste water from benzene prodn. - by permanganate and peroxide cpds. treatment using activated silicic acid flocculant

DNEPRODERZHINSK ENG 19.03.79-SU-737566
 E14 (30.12.80) C02f-01/24
 19.03.79 as 737566 (114VE)

Waste water from crude benzene prodn. (from coke oven gas) by purification includes treating with permanganate/ peroxide flotation reagent in alkaline medium in presence of metal salts (catalysing decomposition of peroxide cpds. Reagent utilisation is improved by using as flocculant activated silicic acid.

Typically, 1 l. waste water at pH 9 and 20 deg.C. (contg. 2.8 g. solar oil and resin, 105 mg. benzene, 9 mg. phenol, 380 mg. sulphides and 0.4 g. finely dispd. solid matter) is stirred with 0.6 g. FeSO4 and 0.3 g. activated silicic acid (calculated on SiO2) before adding (without stirring) 0.1 g. KMnO4 and 0.4 g. H2O2 and vigorously shaking for 1-3 secs. and allowing to stratify over approx. 0.5 mins.

Proposed and previous method giving 100% purification respectively have reagent expenditure (g/l): KMnO4 0.1 and 0.2; H2O2 0.4 and 0.1; MnSO4.2H2O 0.4 and 0.4; activated SiO2 0.3 and

DNEP = ★ D15 69324 D/38 ★ SU-791-614
Purificn. of waste water from benzene prodn. - using permanganate and peroxide flotation agent and peroxide decomposition catalyst

DNEPRODERZHINSK IND 11.03.79-SU-737747
E14 (30.12.80) C02f-01/24
11.03.79 as 737747 (114VE)

Flotation-purification of waste water from crude benzene prodn. (from coke oven gas) by treating with permanganate/ peroxide flotation reagent in alkaline medium lowers reagent expenditure and maintains degree of purification by using metal salts (pref. Mn and/or Fe salts) catalysing peroxide decomposition and forming hydroxides.

To increase removal of suspended matter the process is terminated by passing the aq. phase through a granulated filter contg. activated charcoal and/or quartz sand. (3pp)

DNEP = ★ D15 69325 D/38 ★ SU-791-615
Flotation-purificn. of waste water from benzene prodn. - by alkaline permanganate and peroxide treatment using peroxide decomposition metal catalyst and electrolysis

DNEPRODERZHINSK IND 03.04.79-SU-746822
E14 (30.12.80) C02f-01/24
03.04.79 as 746822 (114VE)

Waste water from crude benzene prodn. (from coke oven gas) is purified by treating it with permanganate/ peroxide flotation reagent in alkaline medium in presence of metal salts (catalysing decomposition of peroxide cpd. and forming hydroxide). Permanganate and peroxide expenditure is reduced by supplementary electrolysis of the waste water (pref. using insol. electrodes, KMnO_4 and H_2O_2 with FeSO_4 or MnSO_4).

The electrolysis treatment gives electroflotation of impurities and electrochemical oxidn. of remaining (in)organic impurities (after treating with permanganate etc.). (3pp)

AAZI = ★ D15 69326 D/38 ★ SU-791-616
Removal of chlorinated organic cpds. from waste water - using mordenite tuff sorbent for long service life

AS AZERB INORGAN PH 26.02.79-SU-730271
E19 J01 (30.12.80) B01d-15/04 C02f-01/28
26.02.79 as 730271 (114VE)

Removal of chlorinated organic cpd. (e.g. CHCl_3 , dichloroethylene etc.) from waste water by a solid sorbent lowers cost by increasing no. of sorption-desorption cycles (without deterioration in degree of purification) by using natural zeolite sorbent (pref. mordenite).

The proposed mordenite fraction of size 1.5-2.5 mm. has chemical compsn. (in %): SiO_2 68.52-71.51; Al_2O_3 12.44-14.54; Fe_2O_3 0.52-1.09; CaO 1.67-2.72; Sr 0.15-0.17; Na_2O 1.69-2.29; K_2O 1.05-3.3; H_2O 10.45-11.5. (3pp)

VORO/ ★ D15 69329 D/38 ★ SU-791-626
Removal of beryllium from waste water - includes treating water with magnesium metal and sepg. off solid phase

VOROBV VI 22.03.79-SU-739748
E33 J01 (30.12.80) C02f-01/58
22.03.79 as 739748 (114VE)

Beryllium cpds. are removed from waste water (by treating with inorganic reagent and sepg. off solid phase). Fast and improved purification of water is obtd. by using 0.005-0.05 g/l metallic Mg reagent.

The proposed method gives satisfactory purification without use of electric current or large reagent expenditure, maintains necessary degree of purification under acidic conditions without lowering of filtration rate, allows regeneration of sepd. Mg/Be prod. to give Be and Mg (for recycling), and increased processing and filtration rates over the pH range 3-9.

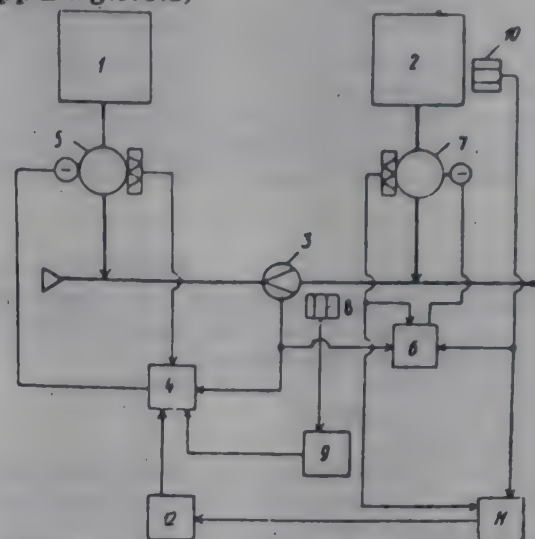
Typically, water contg. 2 micro.g/l of Be is treated with 0.05 g/l Mg for 5 min. before filtering to give Be content 0.2 micro.g/l. Bul. 48/30.12.80. (3pp)

GERZ/ ★ D15 69330 D/38 ★ SU-791-627
Prodn. process filtration water treatment control - by making coagulant flow correction on variation of alkali soln. flow-rate to regulate water pH value

GERZON VM 09.10.78-SU-695408
T06 (30.12.80) C02f-01/66 G05d-27
09.10.78 as 695408 (840GW)

Control of treatment of water for filtering involves relating the flow of alkali (1) into the water to be treated according to the water flow-rate and the pH-value (8) of the water before the site for inlet of a coagulant (2), and varying the coagulant after the alkali soln. inlet site according to the coagulant concn. (10) and the water flowrate. By making a 100% coagulant flow correction (12) on variation of the alkali soln. flow-rate, the pH-value of the

water is regulated accurately and coagulation is optimised. Bul. 48/30.12.80. (2pp Dwg.No.1)



KOZH/ ★ D15 69331 D/38 ★ SU-791-628
Oxidative detoxification of hydrazine-hydrate in waste water - by treatment with hydrogen-peroxide in presence of cupric salt to improve water purity

KOZHEMYAKINA IN 10.04.78-SU-602525
E36 (30.12.80) C02f-01/72
10.04.78 as 602525 (114VE)

Detoxification of waste water from hydrazine-hydrate prodn. (viz. oxidn. of dimethyl ketazine (DMK) is simplified to lower salt concn. (at analogous degree of purification) by oxidising with H_2O_2 using wt. ratio 1:1.2-1.7 at pH 6-7 and 50-60 deg.C. for 2-3 hrs. in presence of cupric salts.

The proposed method lowers DMK content to 0.1-0.35 mg/l and gives biologically oxidisable reaction prods. (e.g. acetic acid, N_2 , H_2O etc.). The remaining hydrazine-hydrate is oxidised with excess H_2O_2 by usual methods (e.g. 1-2 hrs. at pH 9.5-10). The copper sediment is removed by usual methods. (3pp)

LEBA = ★ D15 69332 D/38 ★ SU-791-629
Oxidative detoxification of phosphorus-contg. waste water - prevents introducing oxygenated gas via circulating detoxified water jet to ejection of toxic gas

LENGD BASIC CHEM IN 18.09.78-SU-664387
E36 (30.12.80) C02f-01/72
18.09.78 as 664387 (114VE)

P-contg. waste water (e.g. from yellow P industry) is detoxicated by oxidn. with oxygenated-gas at elevated temp. The purificn. is shortened and ejection of toxic gas prevented by introducing oxygenated-gas by a circulating jet of detoxified water. The process pref. uses oxygenated-gas partial press. 0.9-1.2 atmos., O_2 gas partial press. 0.1-0.6 atmos., and ratio of (dia. of jet):(dia. of reactor) = 1:(30-45).

A cylindrical reactor is filled to 2/3 of its height with waste water (contg. 0.01-5% elemental P and 0-35% solid residue) at 50-70 deg.C. Water is pumped from the bottom and sprinkled into the top of the reactor. (3pp)

INDY/ ★ D15 69333 D/38 ★ SU-791-630
Amine removal from industrial waste water - by alkaline oxidn. with chlorine-contg. reagent and removing sediment prior to further oxidn. in acid medium

INDYUSKIN PN 14.03.79-SU-737806
E19 (30.12.80) C02f-01/76
14.03.79 as 737806 (114VE)

Removal of amines from waste water by oxidn. with Cl-contg. reagent at 10-100 deg.C. and pH 8-10 increases purification by oxidising to residual active chlorine content (ACC) 0.1-2 g/l, sepg. waste water from sediment, and acidifying the water to pH 2-4.9 with HCl.

The proposed acidic oxidn. reduces chemical oxygen demand (COD) from 0.5-2 to 0.1-0.3 g/l and ACC from 0.1-2 to 0.00-0.05 g/l. to give degree of purification (in %): 100 for amine, $\text{NH}_4(+)$ -ions, and carbonate; 95-97 for organic cpds.

The prepd. liquid may be concd. to 305-315 g/l. NaCl concn. and used as source for Cl_2 and NaOH prodn. (3pp)

GORD/ ★ D15 69334 D/38 ★ SU-791-631
Industrial waste water purificn. - by oxidn. with chlorine at elevated temp. useful in sulphur and chlorine contg. additives mfr.

GORDASH YU T 13.04.79-SU-771510
(30.12.80) C02f-01/76
13.04.79 as 771510 (114VE)

Sulphur and chlorine contg. impurities are removed from waste water from additives mfg. by oxidn. with Cl_2 at 10-90 deg.C. and

then heating to the b.pt.

The proposed method converts S-Cl-compds. into sulphates and NaCl and gives utilisable detoxified prod. The degree of purification is 97.3-100% and gives complete removal of Na₂S, NaHS and petroleum prods.

Typically, waste water before and after proposed treatment respectively has properties: isopropenol content 2-10 and 0 g/l; chemical oxygen demand 220 and 5.2 g. O₂/l; pH 12.7 and 7.0. Bul. 48/30.12.80. (3pp)

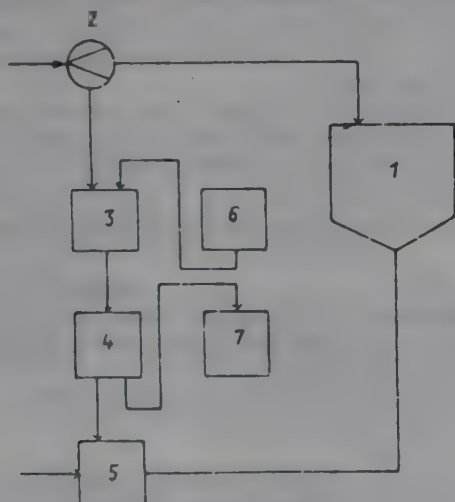
WATE = ★ D15 69335 D/38 ★ SU-791-632
Aq. waste oxidn. tank load control appts. - in which load increase leads to signals from oxygen flow-rate meter and active sludge concn. setter to oxygen flow-rate regulator

WATER SUPPLY CANAL 12.12.78-SU-695270
T06 (30.12.80) C02f-03 G05d-27

12.12.78 as 695270 (840GW)

Appts. for automatically regulating the load of an oxidn. tank (1) and including the effluent distributor (5) has greater reliability in bio-purification of sewage. Introduction of the oxygen flow-rate meter (2) and regulator (3), flow limiter (4), active sludge concn. setter (6) and a flow-rate limit signalling unit (7) dispenses with a complex sensor for the concn. of organic fouling. Increase or decrease of the organic fouling is compensated and excessive decrease is signalled.

Sewage is admitted to the oxidn. tank through the distributor. Oxygen is consumed by active sludge microorganisms during treatment, and so gaseous oxygen is supplied to the tank for stabilisation. The oxygen flow is proportional to the purification rate and metered. Bul. 48/30.12.80. (2pp Dwg.No.1)



ASBI = ★ D15 69336 D/38 ★ SU-791-633
Sewage biochemical treatment automatic control appts. - has sludge mix settling unit and active sludge concn. control loop with sensors generating signals for recording

AS USSR BIOLOG APPT 23.03.79-SU-739822
T06 (30.12.80) C02f-03 G05d-27

23.03.79 as 739822 (840GW)

Automatic control appts. for biochemical treatment of sewage contains a loop for regulating dissolved gas content in a vessel and another related loop for sampling the gaseous mix from the vessel. Introduction of a unit for settling of sludge mix, on active sludge concn. control loop, multicomponent solns. dispensing loop, gas mix oxygen and carbon dioxide content meters, pH-meter, sludge mix eH and carbon dioxide content meters, and carbon dioxide and air dispensers can provide data necessary for optimising the treatment. Bul. 48/30.12.80. (4pp)

UWAT = ★ D15 69337 D/38 ★ SU-791-634
Biological purificn. of waste water - includes two-stage clarification with increasing hydraulic load on bio-filter using recirculated water

UKR WATER TRANSPT 10.04.78-SU-602446
(30.12.80) C02f-03/10

10.04.78 as 602446 (114VE)

Purificn. of waste water, e.g. household and industrial includes preliminary clarification, biological purificn. on biofilters, sec. clarification, recirculation of purified water (removed together with bio-film ppte. from sec. clarification) and mixing it with purifying waste water before preliminary clarification.

The process is intensified by shortening prim. clarification and increasing hydraulic loading on the biofilter without lowering degree of purification by carrying out preliminary clarification with press. flotation using recirculating water as working fluid.

The max. hydraulic press. on the biofilter is 16-20 cu.M/sq.m. per day (3pp)

WATE = ★

D15

69338 D/38 ★ SU-791-637

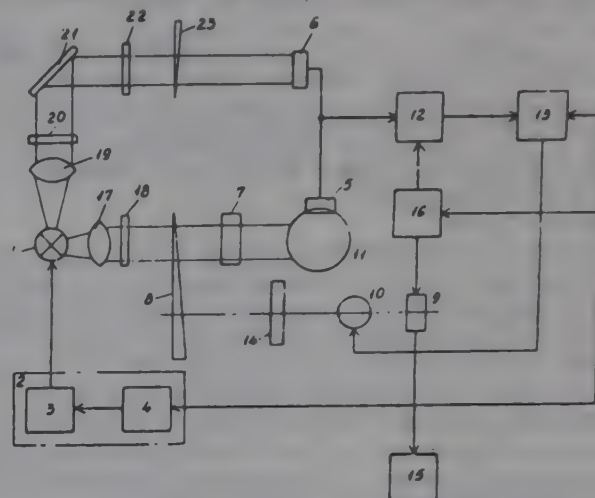
Sewage active ooze concn. photoelectric control appts. - has active and comparison optical channels forming imbalance signal on change of concn. and controlling optical wedge to restore equilibrium

WATER SUPPLY CANAL 20.02.79-SU-731887

T06 (30.12.80) C02f-03/12 G05d-27

20.02.79 as 731887 (840GW)

Sewage active sludge concn. control appts. includes a light source (1), stabilised supply (2), active (5) and comparison (6) optical channel receivers, rheochord (9), motor (10), amplifier (13), optical density indicator (14), recorder (15) and stabilised supply (16). It has greater accuracy and reliability. Introduction of an integrating photometric sphere (11) and matching pre-amplifier (12) for any imbalance signal enables accuracy to be increased to within $\pm 5\%$. Bul. 48/30.12.80. (3pp Dwg.No.1)



AUCO = ★

D15

69339 D/38 ★ SU-791-639

Purificn. of waste water from textile industry - using *Pseudomonas fluorescens* strain and powdered iron or its alloy for nonionic surfactant degradation

AS UKR COLLOID CHEM 04.04.79-SU-746982

J07 (30.12.80) C02f-03/34

04.04.79 as 746982 (114VE)

Waste water from textile industry contg. organic impurities is treated with *Pseudomonas fluorescens* 5/7 strain (by 2-3 fold) in presence of highly dispd. Fe powder or Fe/Co or Fe/Co/Ni powdered alloy using concn. 0.05-0.5 g/l, pref. 0.1 g/l. to improve removal of non-ionic surfactants.

Typically, 250 ml. waste water (contg. 0.05 g/l Prevotcell non-ionic surfactant) is treated with *Pseudomonas fluorescens* 5/7 (using 1 billion bacterial cells/ml and 0.1 g/l Fe powder for 16 hrs.) to give complete destruction of surfactant. Bul. 48/30.12.80. (3pp)

VOLG = ★

D15

69340 D/38 ★ SU-791-640

Water purificn. appts. bacterial slime prodn. - includes growing microflora in presence of bacterial mutant as growth stimulant, useful in chemical mfr.

VOLGODON SURFACTANT 20.04.79-SU-757448 (20.04.79-SU-756853)

(D16) (30.12.80) C02f-03/34

20.04.79 as 756853 (114VE)

Cultivation of microorganisms for use as active slime for waste water biological purification appts. in chemical and petrochemical industries includes aeration on a nutrient source of C, N, and P in presence of bacterial growth stimulants. The cultivation time is reduced by using bacterial mutant as growth stimulant (pref. added at 0.00002-0.0001% on vol. nutrient).

The prepd. active slime gives 1.8 fold greater purification of waste water (after 8 days cultivation), increases air-tank prodn. by 3-4 fold, and may be utilised in any biological purification appts. (3pp)

FEPU ★

D15

69341 D/38 ★ SU-791-641

Metallurgical gas purificn. water system scale formation inhibitor - contg. soluble sodium humate prod. from treating lignite with alkali and inorganic poly-phosphate additive

FERR METAL EFFL PURIF 10.05.78-SU-614924

J01 (30.12.80) C02f-05 C23f-14/02

10.05.78 as 614924 (114VE)

Scale formation inhibitor (e.g. for water purificn. and water-supply systems metallurgical gas purificn. appts.) increases efficiency by using polyphosphate as inorganic phosphate component. The proposed inhibitor contains wt. ratio of polyphosphate: alkaline-coal reagent (ACR) (calculated on P₂O₅) = (1-2):(16-20).

Typically, the proposed inhibitor (contg. (in g/l): Na-hexametaphosphate 0.2; ACR 4.8) and previous inhibitor respectively give inhibiting efficiency 98 and 80%. Bul. 48/30.12.80. (3pp)

POPO = ★ D15 69342 D/38 ★ SU-791-642
Recirculated industrial water treatment - using mixt. of sodium tri:poly-phosphate and copper-sulphate to prevent scale formation

POPOVNI 22.01.79-SU-731273

(30.12.80) C02f-05

22.01.79 as 731273 (114VE)

Treatment of recirculated water in chemical etc. industry, by sodium tripolyphosphate (STPP) and CuSO_4 increases efficiency of prevention of scale-formation (by 15-19 fold) by using 0.015-0.04 mg/l. of mixt. of wt. ratio STPP: CuSO_4 = (1-2):1.

The efficiency is assessed by counting the no. of hard-water crystals after boiling the water under test and evapg. test sample. (2pp)

UNAT = ★ D15 69343 D/38 ★ SU-791-644
Water-soluble salt pptn. inhibition - using sulpho-ureide and to retard rate of encrustation in gas bore-hole

UKR NATURAL GAS RES 16.04.79-SU-757353

E19 H01 (30.12.80) C02f-05/10 C02k-03

16.04.79 as 757353 (114VE)

Glycerin inhibitor for pptn. of water-sol. salts in gas bore-holes contains sulphoureide to retard rate of encrustation (by 7-9 fold). The proposed compsn. is (wt.%): glycerine 85-90; sulphoureide 10-15.

Glycerine is added to fused sulphoureide (at 80-85 deg.C.) to give a paste-like homogeneous mixt. (m.pt. 41-45 deg.C.).

Inhibitor granules (dia. 5-7 mm) are encapsulated in paraffin wax (layer thickness 1.5 mm). The inhibitor is dissolved in hot water and is passed together with stratum water. Crystalline salts (e.g. NaCl) adsorb the inhibitor and become coated in a layer which retards their cohesion and adhesion. The inhibitor prevents pipe corrosion and is used at dosage 16-30 g/l. water. (3pp)

SAMB/ ★ D15 69344 D/38 ★ SU-791-645
Prepn. of inhibitor of mineral salt pptn. - by reacting amine, ammonium chloride and/or urea with formaldehyde and phosphorous-tri:chloride, used in circulating water systems

SAMBORSKII V 21.02.79-SU-733315

A97 E19 (30.12.80) C02f-05/12

21.02.79 as 733315 (114VE)

The inhibitor of mineral salt pptn. in industrial circulating water systems, pumps, piping and shut-off appts. in petroleum etc. industries is prepd. by reacting polyethylene polyamine (PEPA), in petroleum etc. industries is prepd. monoethanolamine (MEA), NH_4Cl and/or urea in acidic medium with HCHO and P-cpd. prior to neutralisation of prod. The prodn. costs are reduced (by 43%) while maintaining inhibitor efficiency by using PCl_3 and removing 65-80% of formed HCl from the reactant mixt.

The PCl_3 is added after the other ingredients into the lower part of the reactor. The neutralisation stage uses 40-45% NaOH soln. to give pH 3.7-3.8. Approx. 2 tones of 28% HCl are removed using 1 ton PCl_3 to reduce process cost further. (4pp)

SAMB/ ★ D15 69345 D/38 ★ SU-791-646
Prepn. of inhibitor of mineral salt pptn. in water systems - by reacting amine, ammonium-chloride and/or urea with formaldehyde and di:methyl phosphite

SAMBORSKII V 21.02.79-SU-745762

A97 E19 (30.12.80) C02f-05/12

21.02.79 as 745762 (114VE)

Inhibitor of mineral salt pptn. (in circulating water systems, pumps, piping and shut-off appts. in petroleum prods. etc. is obtd. by reacting polyethylene polyamine (PEPA), monoethanolamine (MEA), NH_4Cl and/or urea in HCl medium with HCHO and P-cpd. prior to neutralisation of prod. The process costs are reduced while maintaining inhibitor efficiency and giving methylal commercial side-prod. (680 kg. per 1 ton DMP) by using dimethylphosphite (DMP) as P-cpd.

The process pref. uses HCHO in two-fold excess w.r.t. DMP. (3pp)

ABHE = ★ D15 69346 D/38 ★ SU-791-648
Industrial and domestic sewage hydro-transport and treatment - by recirculating foam soln. to start of delivery pipe and adding e.g. polyacrylamide

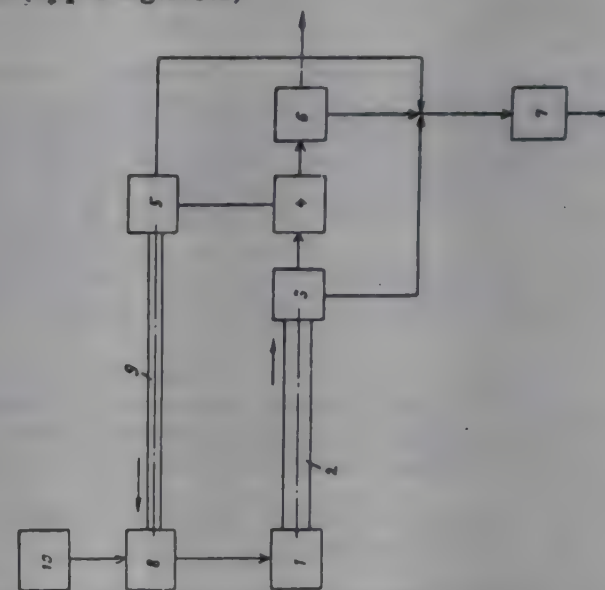
AS BELO HEAT MASS 27.04.79-SU-759822

(30.12.80) C02f-09

27.04.79 as 759822 (840GW)

Sewage treatment by a pumping station (1) communicating by delivery pipe (2) with primary settling tanks (3), bio-treatment in

aerotanks (4), foam fractionation of the off-flow and then dehydration of the foam soln. along with the residue is made more economical in hydro-transport and treatment of industrial and domestic sewage. By recirculation (9) of the foam soln. using the pump (8) and adding e.g. polyacrylamide (10) in the amt. of 0.5-1.0% of the sewage flow, energy is saved and operating costs are reduced. (3pp Dwg.No.1)



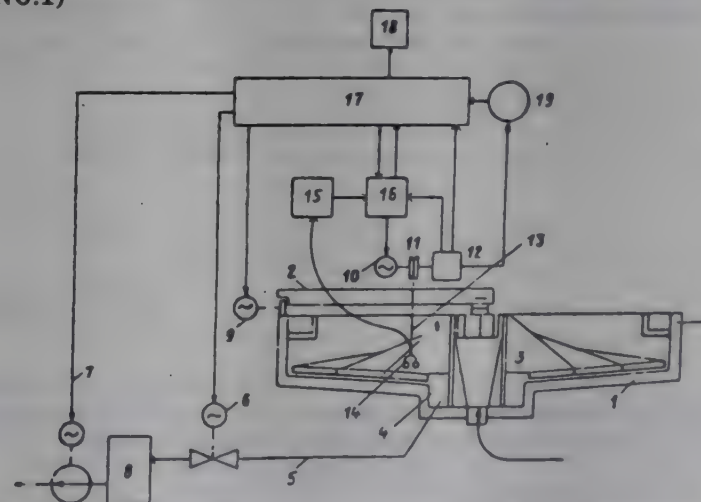
VODG = ★ D15 69347 D/38 ★ SU-791-649
Primary sewage settling tank residue discharge control appts. - has program regulator varying width of pulse to adjust actuator according to residue level in each measuring cycle

VODGEO WATER SUPPLY 30.08.77-SU-522710

T06 (30.12.80) C02f-11 G05d-09/12

30.08.77 as 522710 (840GW)

Control appts. for discharge of residue from a settling tank (1) by the line (5) contains an actuator (6), pump (7), receiver (8), electric drive (9), actuator (10) with shaft-mounted pulley (11) and position sensor (12), rope (13) for a residue level sensor (14), meter (15) and servo regulator (16). The appts. has greater reliability in mechanical treatment of sewage. Introduction of a program regulator (17), residue level recorder (18) and controlled time setter (19) permits usage in esp. complex conditions (e.g. in applying automation to primary sewage settling tanks). (5pp Dwg.No.1)



LECE ★ D15 69348 D/38 ★ SU-791-650
Pre-hydration treatment of sulphate cellulose waste water sediment - using granulated lignin based waste as filtration assistant

LENINGRAD CELL-PAPER INS 18.12.78-SU-696078

F09 (30.12.80) C02f-11

18.12.78 as 696078 (114VE)

Treatment of sulphate-cellulose waste water sediment (by adding filtration assistant and dehydrating) intensifies dehydration process (by reducing filtration resistance of sediment by 10 fold) by using sulphate-cellulose lignin residue (pre-treated with conc. H_2SO_4). The proposed assistant is pref. incorporated at 50-200% on dry wt. of sediment.

The proposed method increases the average size of suspended impurities, sediment porosity, and overall suspn. concn. and reduces process cost (by utilising lignin waste).

The lignin residue is pre-heated 15-30 mins. at 125-150 deg.C. with H_2SO_4 in ratio dry lignin: H_2SO_4 = 1:1-2. (2pp)

KALI= ★ D15 69350 D/38 ★ SU-791-654
 Suspension concentration by stirring with protein enzyme - increases sedimentation rate and purity of decanted liquid and lowers flocculant expenditure by pre pulverising the enzyme with surfactant

KALININ POLY 18.07.78-SU-649554

J01 (30.12.80) C02f-11/12

18.07.78 as 649554 (114VE)

Method of concn. of suspensions in chemical, microbiological, foodstuff, building etc industries (esp. in dehydrating waste liquid contg. finely dispersed impurities) by stirring with a yeast cell enzymes increases sedimentation rate and purity of decanted liquid and lowers expenditure of flocculant (by 3-5 fold) by pre-pulverising the cellular material in presence of surfactant in a fluidised-bed. The yeast cell material (of concn. 0.5-2%) is pulverised below 54 deg.C at pH 3-8 and is utilised 1-60 mins after puvlerisation using 1-50 g dosage per 1 cu.m. of suspn. (2pp)

CEPA ★ D15 69351 D/38 ★ SU-791-656
 Treating cellulose sulphate prodn. waste water sediment - by press flotation compaction with polyacrylamide contg. coal dust additive to reduce residual moisture content after mechanical dehydration

CELLULOSE PAPER IND RES 26.02.79-SU-730779

A97 F09 (30.12.80) C02f-11/14

26.02.79 as 730779 (114VE)

Treatment of sediment from waste water (esp. lignin based residue from sulphate- cellulose industry) by press.-flotation compaction with polyacrylamide (PAA), adding additive, and mechanically dehydrating lowers residual moisture content in the sediment by using coal dust additive (to give ratio coal dust:sediment = 1:1-3).

The moisture content is lowered by 10-23% compared to method using no additive and by 7-16% using sawdust additive. (2pp)

DUIN D15 11488 C/07 = US 4286-983
 Algicidal compsns. contg. di:amine cpds. - including new N-aryl-alkylene-di:amine derivs.

DUPHAR INT RES BV 26.07.78-NL-007908

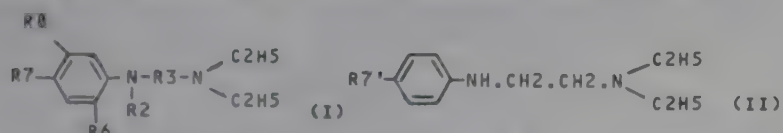
C03 (01.09.81) *GB2026-867 A01n-33/06

20.07.79 as 059420 (974JB)

Novel algicidal materials comprise a cpd. of formula (I) or its salt, and a solid or liq. inert material.

R2 is H, CH3 or C6H5. R3 is ethylene, trimethylene or 2-methyl-ethylene. R6 and R7 are each H, Cl or CH3. R7 is Cl or CH3, but if (a) R6 and R8 are both H, R7 may be CF3, 2-10C n-alkyl or cyclohexyl; (b) R6 and R8 are both Cl, R7 is not Cl and (c) R6 and R8 are H and R7 is Cl, R3 is ethylene.

Pref. (I) is (II) where R7' is cyclohexyl, CF3 or n-C4H9. (I) are pref. used at 0.12-10 kg per hectare surface water. (16pp)



STAN/ ★ D15 69641 D/38 ★ US 4287-019
 Multistage flash evaporator for brine - flowing through vertical stages with countercurrent vapour from flashing units

STANDIFORD FC 26.09.80-US-191446 (12.09.75-US-612736)

J01 (01.09.81) B01d-01/06

26.09.80 as 191446 Add to 612736 Div ex 12-09-75 (295)

A stack of multiple evaporator stages is configured as a tower which receives brine at its upper end. The brine falls through vertical tubes which pass through each stage and act as heat exchangers to heat the brine before it enters a sump at the base of the appts, where it is further heated by a boiler. Hot brine is drawn up through successive riser tubes by centrifugal rotors to enter the evaporator sections of the various stages.

Each stage includes a condenser formed by the vertical brine feed tube. The stages are operated at successively decreasing pressures so that the hot brine is flash evaporated. (16pp Dwg.No.1)

WALL/ ★ D15 69646 D/38 ★ US 4287-026
 Desalination of salt water - which is forced through many stages at high centrifugal velocities to separate salt from water vapour

WALLACE WA 29.03.79-US-025097

(01.09.81) B01d-03

29.03.79 as 025097 (395KB)

Dissolved salt and other minerals are removed from water which passes through a series of stages. Each stage includes a rotatable tray sepd. from an adjacent rotatable tray by a fixed stop plate. The water in each successive stage is heated to produce water

minerals sepd. from and suspended in the water vapour by rotating the trays at a high velocity. The water vapour, salt and minerals are swirled to exert a centrifugal force to physically separate the salt and minerals from the water vapour.

Used for the prodn. of potable water from salt water. Large quantities of salt water may be purified efficiently and economically. (8pp)

STAN/ ★ D15 69664 D/38 ★ US 4287-057
 Water conditioner with axially movable filter beds - having weight-activated device producing signal to indicate necessity of recharging

STANLEY BF 02.09.80-US-183320

(01.09.81) C02b-01/64

02.09.80 as 183320 (295AS)

A rechargeable water conditioner has a weight responsive device indicating when a recharge is necessary. It consists of a container with inlet and outlet, two separate filtering and conditioning media, and three screens.

The weight responsive device is positioned beneath the media and screens, and senses when a predetermined mass of sediment has been added through the deposition of material filtered from the water. The device then activates a signal to indicate the need for recharging which is effected by a reverse flow of fluid through the conditioner.

Appts. is compact and may be used domestically. (5pp)

CONF- ★ D15 69666 D/38 ★ US 4287-060
 Aeration of solid biological waste - using flexible duct drawing slurry and air from surface to bottom of stored waste

CONFINEMENT INVESTO 21.01.80-US-113785 (19.09.78-US-943743)

(01.09.81) B01f-03/04 C02f-03/02

21.01.80 as 113785 (295AS)

Solid biological wastes are stored as a slurry in a confined area. Air and slurry are drawn from the surface region and are discharged adjacent the bottom of the area. This slurry movement is effected using a duct consisting of a hollow tube extending through the slurry from adjacent its surface to its bottom, and housing a propeller pump disposed adjacent the outlet for drawing the slurry through the duct. A float is positioned adjacent the duct inlet for holding it with a major portion immersed in the slurry.

Appts. is used for the treatment of manure during storage to remove toxic and noxious gases to render its handling more pleasant. (5pp)

VNOR/ D15 13286 C/08 = US 4287-062
 Biological sewage treatment - in activated sludge basins with suspended bottom aerators for oscillating motion

VON NORDENSKJOLD R 09.08.78-DE-834899

(01.09.81) *DE2834-899 C02f-03/20 + C02f-07

02.08.79 as 063046 (006HM)

Biological sewage treatment appts., has one or more through-flow sludge basins each with multiple bottom aerators mounted side-by-side on one or more transverse flexible carriers each with lengthwise slack.

Air flow from the aerators generates transverse reciprocations of the flexible carriers, which pref. are flexible air supply tubes for the aerators which they support. (15pp)

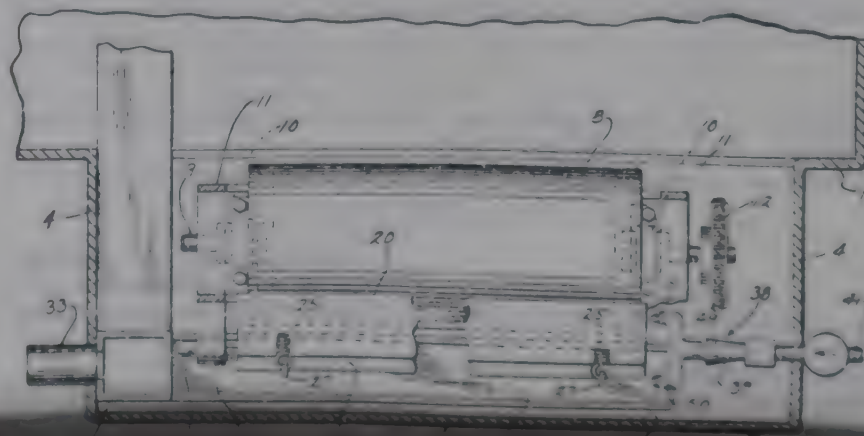
WAUK- ★ D15 69667 D/38 ★ US 4287-063
 Oil water separator - has air operated aspirator for periodically cleaning oil collecting through and doctor blade

WAUKEE ENGICO INC 29.10.79-US-088832

J01 (01.09.81) B01d-33/06

29.10.79 as 088832 (67DH)

Appts. for sepg. oil from water comprises a water tank in which a



partially submerged drum is rotated to collect a film of oil and water on its surface. The film is removed by a doctor blade and passed through an inclined trough into a vertical tube having its lower end below the water level and an overflow outlet above the water level.

The oil collects at the top of the tube and is discharged through the overflow outlet. Oil and sludge is periodically cleaned from the doctor blade and trough by an air operated aspirator which draws water from the tank and discharges it as a jet along the doctor blade and trough.

The appts. can be periodically cleaned automatically without having to close it down. (67pp Dwg.No.1)

ANDO- D15 14694 D/09 = US 4287-064
Filter for sepg. solids and water - has screen and a rotatable brush movable perpendicularly to its axis

ANDO SCREEN SEISAKU 11.06.79-JP-073198
+P43 (01.09.81) *J55165-116 +B07b-01/52

05.06.80 as 156575 (006HM)

Screen for separating solids from liqs. is cleaned by a rotating brush which has pinions on its shaft engaging spaced racks, so that the brush travels along the racks as it is driven alternately in opposite directions to traverse the screen.

Specifically, the screen comprises parallel wires, between which the brush bristles are long enough to penetrate. (5pp)

FARB D15 86751 C/49 = US 4287-069
Accelerating sedimentation in waste water treatment - by adding distn. residue from tolylene diisocyanate mfr.

BAYER AG 21.05.79-DE-920526
A41 C04 E14 (01.09.81) *EP--19-216 C02f-11/14

05.05.80 as 146919 (1376JB)

Aq. sludges are separated by mixing with monomer-free tolylene diisocyanate distillation residues, and removing water from the purified sludge.

The residues are ground and have a particle size of less than 2 mm. Pref. the residues are denatured by adding water at a temp. of above 130 deg.C. (11pp)

CILI- ★ D15 69670 D/38 ★ US 4287-070
Long vertical shaft bio:reactor - with effluent partially recirculated to maintain constant gas to solids ratio

CIL INC 26.10.79-CA-338537
(01.09.81) C02f-03/12

13.06.80 as 159352 (295AT)

In a long, vertical shaft, waste water treatment bioreactor, aerated fluid is continuously circulated around downcomer and riser chambers. Effluent is removed from the riser chamber and is discharged into a cylindrical vessel positioned between the riser and a sludge separator. The cylindrical vessel is positioned

at a higher elevation than the separator.

The effluent waste from the cylindrical vessel is discharged selectively to the separator or back to the bioreactor in response to the level of waste in the bioreactor. This maintains a constant level of dispersed and dissolved gas in the waste fluid.

An optimum dissolved gas concn. can be maintained together with a constant gas-to-solids ratio in the effluent discharged to the flotation and sepn. tank. (6pp)

DREW ★ D15 69672 D/38 ★ US 4287-072
Treatment of cationic or anionic exchange resins - with addn. of catalysed hydrazine cpd. to prevent iron fouling of the resin

DREW CHEMICAL CORP 18.10.79-US-086049
E36 (E19) (01.09.81) C02f-01/42 C02f-05/08

18.10.79 as 086049 (478AT)

The known treatment of H₂O by passage over an ion exchange resin is improved by addn. of a hydrazine cpd. (I) previously catalysed with a suitable catalyst (II).

(I) is pref. N₂H₄ (or (hydroxy)alkyl or aromatic derivs.) or a suitable salt. (II) is pref. an organometallic complex, or a quinone (esp. a 1-5C alkyl-p-quinone or p-hydroquinone). Catalysed (I) are known corrosion inhibitors and/or O₂ scavengers (US 4026664, 4022712, etc.). Amt. of catalysed (I) cpd. added is 0.02- 20 pref. 0.2- 20 ppm. Treatment effectively alleviates Fe fouling of both anionic and cationic resins used for the treatment of a variety of waters (partic. condensates generated e.g. in a steam turbine system). (3pp)

SHIO D15 55481 C/32 = US 4287-137
Aeration impeller - with peripheral grating for better gas bubble dispersion

SHIONOGI KK 18.01.79-JP-005103
J02 (01.09.81) *DE3001-829 B01f-03/04

09.01.80 as 110444 (006HM)

Vaned impeller for aerating liqs., by generating radially-outward flow of liq. contg. air bubbles, has its vanes encircled by a grating which rotates with the impeller and comprises an assembly of straps for shearing the air bubbles to make them small.

Use is esp. in fermentation appts. for microorganisms in penicillen prodn. Pref. a single strap of round, rectangular or polygonal section is wound spirally about the impeller vanes. (7pp)

See Also

D16 BE 888670 D17 EP G014136 D22 J5 6097203
D22 SU 791620 D22 SU 791621

D16: FERMENTATION INDUSTRY

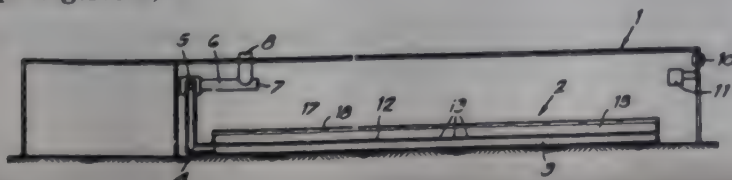
KWAN/ ★ D16 67963 D/38 ★ BE -887-754
Growing mushrooms in conditioned space - by controlling carbon dioxide by downward extraction via compost bed and controlled recirculation

KWANTEN W 03.03.81-BE-887754
P13 (03.09.81) A01g

03.03.81 as 887754 (1190NS)

Process comprises the removal of excess CO₂ present in the vicinity of the mushrooms by extracting it in a downward direction through the layer of compost. The pref. appts. used may comprise an insulated space (1) contg. one or more cultivating beds (2) and a duct (3) below each bed and communicating therewith which is connected (4) to an extract fan (5) whose outlet (6) can discharge into the enclosed space (7) and to atmosphere (8). The space is pref. provided with a controllable air inlet (10) and may contain a circulation fan (11) with thermostatically controlled heating and/or cooling unit.

The controlled downward air flow through the compost enables utilisation of the biologically developed heat and reduction of the fresh air component by up to 90% thus saving energy. (13ppDwg.No.3)



EKSE- ★ D16 67979 D/38 ★ BE -888-670
Liq. manure is heated in fermentation tank to produce methane - burned in boiler serving tank heating and external heating system

EKSELSE KONSTR WERK 05.05.81-BE-888670
E17 (D15) (28.08.81) C12m C12p

05.05.81 as 888670 (1190HM)

The arrangement is intended for producing combustible gas from liq. manure. The manure is heated and the released methane gas collected and stored in a gas holder which feeds a burner producing the heat required to heat the manure and also used in a heating or power installation. The manure is pref. heated to a temp. of around 35 deg. to 37 deg. C, and the lean gas/air mixt. initially released is allowed to escape unused. Developed gas may from time to time be circulated through the manure to break up any surface crust and mix any sediment. The liq. manure may be mixed with chopped straw or sawdust from pine trees.

Producing energy from liq. manure. Utilisation of otherwise wasted material. (11pp)

BRYA/ ★ D16 D/38 ★ BR 8001-254
Mono-specific antibodies prodn. - and sepn. of sex-determining spermatozoa

BRYANT B J 15.02.80-US-117341
B04 C03 S03 (25.08.81) G01n-33/50

SMEL/ ★ D16 D/38 ★ CS 8001-511
Wine and fermented products drink
SMELY Z 05.03.80-CS-001511
(30.06.81) A23l-02/12

HRAD/ ★ D16 D/38 ★ CS 8002-806
Invertase separation
HRADIL J 15.04.80-CS-002606
(D17) (30.06.81) C12n-09/26

FARK/ ★ D16 D/38 ★ CS 8002-728
Wine, fruit and similar distillates purificn. - to eliminate sulphur dioxide, copper and colloids
FARKAS J 18.04.80-CS-002728
(30.06.81) C12h-01/10

SEKE/ ★ D16 D/38 ★ CS 8003-272
Setting medium for cytological microscopy
SEKERKA V 12.05.80-CS-003272
B04 (30.06.81) C07c-39/06 C12m-03/04

CULI/ ★ D16 D/38 ★ CS 8003-615
6-Amino-venicillanic acid prepn.
CULIK K 22.05.80-CS-003615
B02 (30.06.81) C12p-37

ZEME/ ★ D16 D/38 ★ CS 8003-770
Supports for biologically active cpds.
ZEMEK J 29.05.80-CS-003770
B04 (30.06.81) C12n-11/14

ZUFF/ ★ D16 D/38 ★ CS 8004-105
Avirulent virus of Aujeszky disease
ZUFFA A 11.06.80-CS-004105
B04 C03 (30.06.81) C12n-07/08

HRBK/ ★ D16 D/38 ★ CS 8005-147
Diagnostic antigen prepn. from rubeola virus - for haema-glutination-inhibition
HRBKA A 21.07.80-CS-005147
B04 (30.06.81) C12q-01

KASC/ ★ D16 D/38 ★ CS 8007-048
Non-fermented alcoholic beverage prepn.
KASCAK J 17.10.80-CS-007048
(30.06.81) C12g-03/06

DUNG- ★ D16 68022 D/38 ★ DD -149-025
Liquid pig manure preparation - for compost in sieve bends and dewatering basin
DUNGUNGSFORS LEIPZI 05.02.80-DD-218896
A88 (24.06.81) B01d-37
5.02.80 as 218896 (39DJ)

A plant for the treatment of liq. pig manure consists of two sieve bends in series which are charged with the manure from the stables or an intermediate basin, via a settling tank if the solids content is under 6%. The second sieve discharges its overflow into a dewatering basin where a storage of 20 days converts it into compost.

The liq. and the sieve bend underflow are passed to a storage basin with a sludge settling section. The liq. manure from the sties is passed through an intermediate basin to two sieve bends. They are pref. covered by woven polyester tissue and are mobile on a common wheeled chassis for equal distribution of their overflow. A solids content of under 6% requires a settling tank.

This system is simple and requires a min. of power and labour. (3pp)

DEAK ★ D16 68036 D/38 ★ DD -149-056
Crude oil removal by emulsification and biological degradation - using bio-lipid extract obtd. from fermentation of hydrocarbon(s) with yeasts or bacteria

AKAD WISSENSCHAFT DDR 07.02.80-DD-218942
B04 H03 (24.06.81) C02f-03
07.02.80 as 218942 (280BZ)

The biolipid extract is obtained as a by-product of the microbiological fermentation of hydrocarbons with yeasts or bacteria. Further substances (e.g. N-contg. nutrients, emulsifiers or other adjuvants) may be added to the biolipid extract.

The biolipid extract pref. contains 10-80% phosphatides (esp. lecithin and cephalin) and 10-80% 12-20C (esp. 16-18C) fatty acids (in free or bound form), the major part of the fatty acids being unsaturated in biolipid extracts isolated from yeast biomass. If the biolipid extract is obtained from microbiological fermentations using mineral oil distillates, its hydrocarbon content is pref. 20-60% (esp. 30-50%). This biolipid extract pref. contains sterols (esp. ergosterol), ubiquinones, and fat-soluble vitamins (e.g. vitamin E).

pollutant in or on water) into a biodegradable emulsion. The biolipid extract contains P and N as nutrients for hydrocarbon-degrading microorganisms. It has an emulsifying effect on crude oil and mineral oil products, and a growth-promoting effect on hydrocarbon-degrading microorganism. (9pp)

CHEM- ★ D16 68047 D/38 ★ DD -149-080
Two/step single-cell protein prodn. - by extracting biomass with hydrocarbon, ethanol and water mixt., adding water and using aq. phase as fermentation substrate

VEB CHEMIEANLAGEN L 12.02.80-DD-219007
H04 (D13) (24.06.81) C12n-01/26

12.02.80 as 219007 (200HM)

Single cell protein is produced by cultivating a bio-mass on a petroleum distillate or hydrocarbons in 1st step. The bio-mass is purified by extn. with a mixt. of hydrocarbons, boiling at 40-120 deg. C, EtOH and water. The EtOH is sepd. from the extract phase by adding water. The aq. phase obtd., contg. EtOH, nutrient salts and lipophilic components, is charged to a 2nd step, consisting of fermentation and mechanical and thermal water sepn., and used, partly or entirely, as fermentation substrate.

Raw- and auxiliary materials are used up efficiently, EtOH enrichment with organic acids is prevented. (8pp)

CHEM- ★ D16 68048 D/38 ★ DD -149-081
Two/step single-cell protein prodn. - by extracting bio-mass with methanol and opt. hydrocarbon, adding water and using aq. phase as fermentation substrate

VEB CHEMIEANLAGEN L 12.02.80-DD-219008
H04 (D13) (24.06.81) C12n-01/26

12.02.80 as 219008 (200KB)

Single-cell protein is produced by cultivating a bio-mass on petroleum distillates or hydrocarbons in a 1st step. The bio-mass is purified by extn. with MeOH opt. mixed with hydrocarbons boiling at 40-120 deg. C. The MeOH used for extn. is sepd. from extract or hydrocarbon mixt. by adding water. The aq. phase obtd., contg. MeOH, nutrient salts and lipophilic components, is charged to a 2nd step, consisting of fermentation, mechanical and thermal water sepn., and used, entirely or partly, as fermentation substrate.

Charge- and auxiliary cpd. use is improved. (11pp)

KNEI/ ★ D16 68049 D/38 ★ DD -149-082
Mycotoxin citrinine prodn. by fermentation - of penicillium citrinum zimet 43648

KNEIST S 25.01.80-DD-218645

B04 C03 (D13) (24.06.81) C12n-17/06 C12r-01/80

25.01.80 as 218645 (280HM)

In a new process for the prodn. of the mycotoxin citrinine by means of *Penicillium citrinum*, there is used the strain *Penicillium citrinum* ZIMET 43648 (deposited at the Zentralinstitut fuer Mikrobiologie and experimentelle Therapie, Jena).

Crude citrinine is precipitated from *P. citrinum* culture filtrate by acidification to pH 1.5 with conc. HCl. After drying, the crude material is dissolved in CHCl₃ and the solution is filtered and evaporated to dryness. The residue is dissolved in hot EtOH and the solution is cooled to ca 4 deg. Citrinine crystallises out. The recrystallisation from EtOH is repeated 3 times. Yield ca 180 mg. per 100 ml culture filtrate. UV absorption maximum.

Citrinin will be required as a standard substance in the routine analysis of mycotoxin-contaminated feedstuffs and foodstuffs in medical and veterinary laboratories. (4pp)

HOLK ★ D16 68072 D/38 ★ DE 3006-314
Valve bank for drinks industry - includes control valve for two off positions

HOLSTEIN & KAPPERT MASC 23.02.80-DE-006814
Q57 (D14) (10.09.81) C12l-09 F15b-01

23.02.80 as 006814 (39NS)

A bank of control valves, specially for use in the drinks industry for cleaning and filling tanks, includes in addition to the waste air, sterile air, carbon dioxide inflow and outflow air, sterile air, carbon dioxide inflow and outflow valves, a special control valve which can be moved to the ON or OFF position. In a first OFF position the valve disc can still be opened against a telescopic springloaded rod by a certain counterpressure. In the second OFF position the free path is taken up and the valve remains closed under all circumstances.

This allows carbon dioxide to escape from the tank. During the tank cleaning operations, the valve remains, however, securely closed. (11pp)

INTE- D16 72162 B/40 = EP G004-431
Bacterial leaching of ores, esp. ferrous sulphide ores - including supplying oxygen in available combined form to bacteria

INTEROX CHEM LTD 23.03.78-GB-011541

M25 (09.09.81) *EP---4-431 C22b-03 + C12p-03

12.03.79 as 300373 (945PW) (E) FR2169263 FR2278631 US3266889 US3268288 US3679397 E(BE CH DE FR GB IT LU NL SE)

In the bacterial leaching of ores using thiobacilli in the presence of oxygen to extract metal values, the oxygen is supplied in the form of a peroxidic cpd. (I).

(I) may be in soln., e.g. as H₂O₂, or in solid form, e.g. as a per cpd. or peroxide addn. cpd. The process may be effected in the presence of Fe and S cpds. under acidic conditions. Pref. temp. is 20-70 deg.C.

Suitably, S is present as sulphate is *Thiobacillus ferro-oxidans*, or S is present as sulphide and the bacteria is *Thiobacillus* sp. strain TH1. (10pp)

DYNA- ★ D16 68173 D/38 ★EP --25-350
Appts. for measuring chemical or biochemical luminescent reactions - automatically processes and measures up to 96 sample reactions and uses multi-well plate and photodetector linked to high gain amplifier

DYNATECH AG 05.09.79-GB-030858

J04 S03 (18.03.81) G01n-21/76 G01n-35

05.09.80 as 303132 (1460DH) (E) US3520660 US3773426 US3951605 US3984688 US4115010 E(AT BE CH DE FR GB IT LI LU NL SE)

The appts. which is contained within a light-proof housing consist of a support for a multi-well plate, with an opaque grid the compartment walls of which individually surround the transparent wells in the multi-well plate preventing light intersection between adjacent wells in the eight by twelve well matrix.

Situated in a singleline above the well plate is a bracket carrying eight injector tubes. At an appropriate point, when positioned over a row of wells, the stepper motor driven reciprocating mechanism lowers the injector tubes into the wells and peristaltic pumps inject a controlled amount of liquid into each well in the tow. The injectors are then raised again. A lower antilever arm houses a row of photocells in close proximity to the underside of the transparent well bottoms.

The injectors and photocells are index forward one row at a time by the motor driven lead screw mechanism so that in turn all wells are covered. The photocells measure the luminescence produced in each individual well and their signals feed via high gain amplifiers to a data processing unit. (21pp)

HOFF D16 56870 D/31 = EP --35-119
Antibiotics X-14868 A, B, C and D from *Nocardia* sp. ATCC 31585 - useful as antibacterials, anticoccidials and ruminant growth promoters

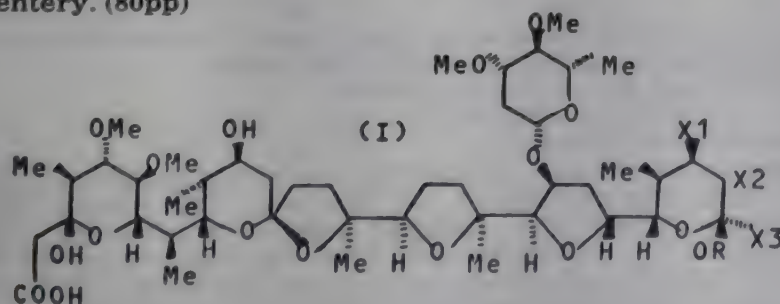
HOFFMANN-LA ROCHE AG 30.01.80-US-116696

B03 C02 (09.09.81) *US4278-663 A61k-31/35 + A23k-01/16 C07d-493/10 C12p-17/18 C12p-19/60

29.01.81 as 100651 (1248DJ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Antibiotics X-14868A-D of formula (I) (A-B) and their salts are new, (either (1) X₁ is Me, X₂ is ---Me, X₃ is absent and R is H, or (2) X₁ is absent, X₂ is -Me, X₃ is Me and R is Me, respectively). The X-14868C melts at 172-5 deg.C (Na salt), gives a microanalysis of 57.12% C, 8.58% H and 2.36% Na, and has characterising i.r. spectrum and specific rotation. The X-14868D melts at 194-5 deg.C (Na salt) gives a microanalysis of 60.32% C, 8.80% H and 3.40% Na and has characterising i.r. spectrum and specific rotation.

The antibiotics are active against certain Gram-positive bacteria and so are sterilising agents and they show anticoccidiostatic activity. X-14868A improves ruminant feed utilisation and prevents and treats ketosis, and it is active against *Treponema hyodysenteriae*, the etiologic agent of swine dysentery. (80pp)



KLEI/ D16 62499 D/35 = EP --35-121
Bio:catalyst beads prodn. by ionic crosslinking of polycations - in the presence of enzymes or enzyme systems esp. living cells

KLEIN J 15.02.80-DE-005633

A96 B04 J04 (09.09.81) *DE3005-633 C12n-11/04

02.02.81 as 100722 (280AT) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

In a new process for the prodn. of biocatalysts contg. highly sensitive enzymatically active substances by ionic crosslinking of polycations using (A) a soln. or suspension of an enzymatically active substance in an aq. 0.1-15 wt.% soln. of a cationic polyelectrolyte and (B) a pptn. bath consisting of an aq. soln. of a polyvalent anion, (1) a soln. or suspension A is sprayed at -5 to plus 80 deg.C into the pptn. bath B to form perle-shaped particles with a granule size range of ca 0.5-10 mm which are solidified with stirring for ca 5 mins. to 4 hrs, and (2) the resulting catalyst perles are filtered off and equilibrated with an aq. soln. which stabilizes the enzyme system and the crosslinking.

Used for immobilisation of highly sensitive enzymes or enzyme systems (esp. live cells) to give biocatalysts suitable for industrial use. The biocatalyst perles have high resistance to mechanical pressure and have high enzyme content. (5pp)

BOEF ★ D16 68239 D/38 ★EP --35-211
Turbidimetric determination of beta-lipoprotein - by pptn. with polyanion, di:valent cation and chelating agent

BOEHRINGER MANNHEIM GMBH 29.02.80-DE-007764

A96 B04 S03 (09.09.81) C12q-01/44 G01n-33/92

23.02.81 as 101302 (1251KB) (G) DE2708912 DE2013644 US4039285 EP--13814 5.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Direct turbidimetric determination of beta-lipoprotein (I) in body fluids comprises pptn. at pH 7-9 with a polyanion and a divalent cation in the presence of a complexing agent (II). Opt. an ester-splitting enzyme, esp. lipase from *Rhizopus arrhizus*, can be added.

Pref. (II) is hexadentate, specifically EDTA, and the divalent cation is an alkaline earth or manganese, esp. used in stoichiometric amt. relative to (II). It is esp. pref. to pre-react these two components to form a salt-like complex which (opt. after isolation) is then added to the sample. Pref. polyanions are Na heparin, polyphosphotungstic acid or dextran sulphate.

The presence of (II) provides a much more selective pptn. of (I), esp. far lower errors are caused by co-pptn. of very-low density lipoproteins (I'). The method is suitable for automated, routine analysis using the kinetic fixed-time method. (19pp)

PEGA- ★ D16 68273 D/38 ★EP --35-296
Producing plants inoculated with symbiotic mycorrhiza - by transfer from pre-inoculated pilot plants, useful e.g. for truffle prodn.

PEGASUS PENSION FUN 18.02.80-IT-067244

P13 (09.09.81) A01g-07 A01h-17

13.02.81 as 200172 (1251AT) (F) FR1408517 E(AT BE CH DE FR GB LI LU NL SE)

Prodn. of plants contg. symbiotic fungi as mycorrhiza, comprises first growing a series of plants in sterile soil, then contacting their roots with roots from another plant already naturally inoculated with the fungus. The treated ('pilot') plants are then planted in sterile soil. Separately, sec. roots contg. fungi other than the required species, are removed from adult plants, the remaining roots sterilised, then the plants placed next to the 'pilot' plants so that they become inoculated with the fungus.

Pref. the first set of plants are raised from seed, and the 'pilot' plants are planted, esp. in autumn, in a greenhouse or nursery bed about half a meter apart.

The adults plants will rapidly produce fruiting bodies once inoculated with the fungus, and any type of symbiotic fungus can be used e.g. *Tuber* species (truffles), *Boletus* species, *Amanita caesarea* or *Lactarius deliciosus*. (9pp)

REGC ★ D16 68307 D/38 ★EP --35-384
Deoxy nucleotide linkers for cloned DNA coding sequences - facilitating cleavage, solid-phase purificn. and/or ribosomal binding

UNIV OF CALIFORNIA 29.02.80-US-125878

(09.09.81) C12n-15

27.02.81 as 300826 (367BZ) (E) No-Citns. E(BE CH DE FR GB IT LI NL SE)

The following are claimed: (A) a specific cleavage linker comprising a DNA sequence (I) coding for a sequence of one or more amino acids which is specifically recognised and cleavable by enzymatic or chemical means; (B) a specific purificn. linker comprising a DNA sequence (II) coding for an amino acid sequence which is selectively bindable to a solid-phase material; (C) a ribosomal binding site linker comprising a DNA sequence (III) which is homologous to the 3'-end of 16S ribosomal RNA, and a DNA sequence (IV) comprising 3-11 deoxynucleotides, (IV)

being joined to (III); (D) a composit linker comprising a DNA sequence (V) having a restriction site which is recognised and cleavable by a restriction endonuclease, a sequence of type (III), a sequence of type (IV), a sequence (VI) having the initiation codon, a sequence of type (II) and a sequence of type (I), where (V), (III), (IV), (VI), (II) and (I) are joined together in the direction of translation.

Sequences of type (I) coding for an amino acid sequence cleavable by enterokinase are 5'-(GAL)n-AAJ-3' or 5'-(GAL)n-WGZ-3' (where L is A, T, C or G; J is A or G; W is A if Z is A or G, or W is C if Z is A, G, C or T; Z is A, T, C or G if W is C, or Z is A or G if W is A; n = 2-4). Linkers contg. (I) pref. also have a restriction site, esp. the sequence 5'-CCAAGCTTGG-3' for HindIII endonuclease.

Sequences of type (II) may code for a polyanionic, polycationic or hydrophobic amino acid sequences or for an immunogenic peptide. Specified sequences are 5'-(GAL)m-AAK-(GAL)n-AAJ-3' (where K is T or C and m is 1-4).

Linkers of type (C) can also contain a termination codon and/or a promoter segment. Specified linkers contain the sequences 5'-(L) TAGGAGGA(L) -3', 5'-(L) TAGGAGGATCAATTCC-3' or 5'-TATJATJAGGAGGA(L)m-3' (where p is 0-2 and q is 3-11). (41pp)

FABR ★ D16 68317 D/38 ★EP --35-429
Vaccine complex derived from ribosomal bacterial RNA - coupled to specific bacterial antigen

FABRE P SA 20.02.80-FR-003707
B04 (09.09.81) A61k-39/02

19.02.81 as 400258 (1251RH) (F) FR2374911 FR2388563 FR2305990 FR2360314 FR2253499 2.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

A vaccine complex consists of bacterial ribosomal RNA, or its fragment, to which is coupled 1-5 wt.% of an antigen specific for a bacterial serotype. The RNA and the antigen can be derived from the same or different bacterial strains.

The pref. antigens are capsular polysaccharides (CP); membrane lipopolysaccharides (MP) from Gram negative bacteria; specific membrane proteins (SMP), and teichoic and lipoteichoic acids (TA) from Gram positive bacteria. The pref. RNA fragments have mol. wt. 30000-50000 and the components are coupled by covalent bonds. Vaccines contg. these complexes are also new.

When coupled to RNA, very small amts. of antigen will induce a satisfactory immunostimulant response. The problems of toxicity associated with large doses of such antigens are thus avoided. (34pp)

GENE- ★ D16 68324 D/38 ★EP --35-454
Des:acetyl-thymosin alpha 1 with immunostimulant activity - synthesised in microbial host using recombinant DNA

GENENTECH INC 28.02.80-US-125685

B04 (09.09.81) A61k-37/24 C07c-103/52 C12n-01 C12n-15

27.02.81 as 400317 (367BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Desacetylthymosin alpha 1 of formula (I) is new. Also new is a cloning vehicle contg. a gene coding for (I), the vehicle being suited for transformation of a microbial host for expression of (I). (I) is produced by preparing a synthetic gene coding for (I), incorporating the gene in a plasmid vehicle by recombinant DNA techniques, transforming a microbial host with the vehicle, culturing the transformed microbial host, and isolating (I) from the culture. The specifically claimed cloning vehicle is the plasmid pThalpha,betagal.

(I) has practically the same immunostimulant activity as natural thymosin alpha 1 and can be used to treat immunodeficiency diseases and immunosuppressed conditions associated with thymus malfunction. (39pp)

NH₂-Ser-Asp-Ala-Ala-Val-Asp-Thr-Ser-Ser-Glu-

Ile-Thr-Thr-Lys-Asp-Leu-Lys-Glu-Lys-Lys-Glu-

Val-Val-Glu-Glu-Ala-Glu-As-COOH (I)

ENFO/ ★ D16 68336 D/38 ★EP --35-480
Enzyme electrode using oxygen consuming enzymes - comprises oxygen electrode with electrolytic oxygen generation to maintain constant activity

ENFORSSO 05.03.80-SE-001711

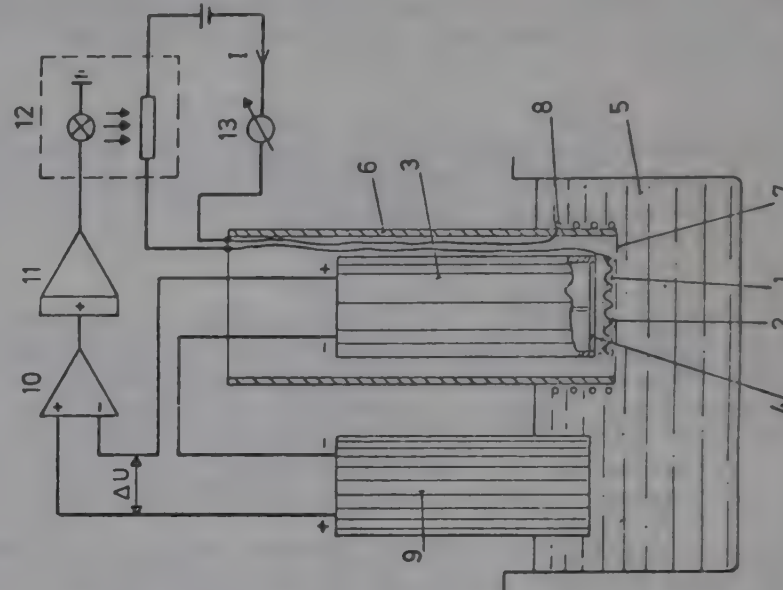
J04 S03 (09.09.81) C12m-01/40 C12q-01/26 G01n-27/30

20.02.81 as 850029 (1251KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL)

An enzyme electrode comprises an oxygen electrode (OE) having immobilised on, or near, its sensitive surface at least one enzyme, and an anode placed close to the enzyme so that oxygen consumed in the enzymatic reaction is replaced by electrolytic oxygen.

between the OE signal and a reference signal measured by a separate (enzymatically passive) OE, or (b) by the difference between the enzyme electrode signal and a constant reference value. The enzymes esp. include oxidases or oxygenases.

The electrodes are esp. used to assay glucose and other sugars, but other electrodes can be designed where the OE serves as a base sensor (e.g. alcohol, cholesterol or uric acid electrodes). Since the supply of oxygen is not limiting (as it is in known systems) the measuring range of the electrode is greater; the limiting factor is now the enzyme activity but even this limit can be increased by using a membrane of reduced substrate permeability. The oxygen-prodn. rate is automatically controlled to maintain the same oxygen activity in both electrode and sample. (10pp Dwg.No.1)



KALL/ ★ D16 68337 D/38 ★EP --35-484
Therapeutic and diagnostic compsns. - contg. carbohydrate structures for interaction with pathogenic bacteria

KALLENIOUS GP 05.03.80-SE-001748

B04 C03 S03 (09.09.81) A61k-31/73 A61k-45 C07g-07 C07g-17 C12q-01/04 G01n-33/54

05.03.81 as 850035 (1248) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Therapeutic and diagnostic compsn. comprises an active constituent contg. a structural element (I) of formula alpha-D-Galp-(1-4)-D-Gal pref. in the terminal posn.

The compsn. has the ability to replace the normal receptor function in vivo in relation to pathogenic bacteria causing infections in man and animals. It is useful for (a) diagnosis of proneness to bacterial infection, antibodies against the receptor being generated and reacted with mammalian test cells; (b) purifying the acceptor structures of bacteria by using the affinity between the structural element and the acceptor structures on the bacteria; (c) identifying bacteria having receptor structures recognising the structural element; and (d) therapeutic treatments.

Pref. compsns. have structural element e.g. of formulae (II)-(V).

alpha-D-Galp-(1-4)-beta-D-Galp (II) alpha-D-Galp-(1-4)-alpha-D-Galp (III)

alpha-D-Galp-(1-4)-alpha(beta)-D-Galp-1-OR (IV) alpha-D-Galp-(1-4)-beta-D-Galp-(1-4)-D-Glc (V)

(R is an organic residue attached to the alpha or beta-configuration). These elements are coupled to macromolecular carriers, e.g. polypeptides, polysaccharides and other polymers, through spacing gps. such as p-O-C₆H₄-NHCSNH or p-NH(CH₂)₂-C₆H₄-NHCSNH gps. (26pp)

CHAT/ ★ D16 68371 D/38 ★FR 2475-524
Digester to produce methane gas from organic waste - fermented in plastic lined channel warmed by solar panels

CHATELAIN M 08.02.80-FR-003100

P11 (14.08.81) A01c-03/02 C02f-11/04

08.02.80 as 003100 (448BZ)

The digester comprises an anaerobic digestion channel which is loaded with organic matter at one end. The matter flows continuously along the channel and is discharged, after fermentation, at the other end. Pref. at intervals along the channel, recycling pumps extract fermenting material from just below the surface and reinject this material near the base of the channel at a point upstream of the extraction point.

The channel is pref. in the form of a tubular sleeve of plastic sheeting into which pipe couplings are bonded for connecting to the recycling pumps. The tubular sleeve is pref. encased in a metal framework extending along and on top of a drainage

The channel is pref. aligned in an east-west direction. Solar panels for heating the channel can be resited freely on the south-facing, top edge of the channel to form a lean-to shelter. The shelter may be used to house pumps, control gear etc.

Prodn. of methane gas from organic waste which can be used as agricultural fertiliser after fermentation. (13pp)

ANTO/ ★ D16 68380 D/38 ★FR 2475-571
Appts. producing bio:gas by organic waste anaerobic fermentation - uses vacuum pump to suck raw material into spherical fermenting vessel

ANTONI R 12.02.80-FR-003451

P11 (14.08.81) A01c-03/02 C02f-11/04 C12m-01 C12p-05/02

12.02.80 as 003451 (448HM)

An installation is for the prodn. of biogas by fermentation of organic waste, sewage sludge etc. The fermentation can be batch or continuous, the fermenting vessel is fitted internally with an agitator and externally with thermal insulation and is provided with a control unit. Pref. the vessel is in the form of a hollow sphere or cylinder with dished ends. The vessel is pref. raised on legs sufficiently high for the vessel to be able to be discharged by gravity into road transport. Raw material is pref. sucked into the vessel by vacuum produced by a vacuum pump. Reversal of the vacuum pump can be used to discharge the fermented material. The vacuum pump is pref. used to extract air from the vessel during anaerobic fermentation.

The control unit pref. comprises oil hydraulic equipment from which warm oil is circulated to heat the fermenting material.

The waste material does not have to be diluted to the same extent as when it is pumped. No pump maintenance is involved. Material storage space reduced by 10 to 20 times. Heating is by recuperated energy. (6pp)

INSP ★ D16 68381 D/38 ★FR 2475-572
Influenza viral fractions for prepn. of vaccines - by treating virus with chloroform and nonionic detergent

INST PASTEUR 11.02.80-FR-002978

A96 B04 (14.08.81) A61k-39/12 C12n-07

11.02.80 as 002978 (520HM)

Viral fragments from the liq. exterior of the virus are obtd. at neutral or basic pH, by dissolving, in an aqs. suspension of the virus, a lower halogenated hydrocarbon (I) at a concentration that is equal or nearly equal to the limit of its solubility then the prepn. thus obtd. is stirred with a non-ionic detergent (II) at the min. concentration to effect disruption of the virions into heavy fragments, and for sufficient time for this disruption to take place, and the fragments are separated from the reaction mixt.

Used in prepn. of vaccines, esp. for influenza. Vaccines prepd. from the viral fractions are more effective, and have less side effects, than vaccines prepd. by conventional means. (24pp)

FAUR/ ★ D16 68398 D/38 ★FR 2475-735
Analyser for liquid samples - where numerically controlled distributor transfers liquids from sample and reagent tubes to reaction tubes, and then to reader cell

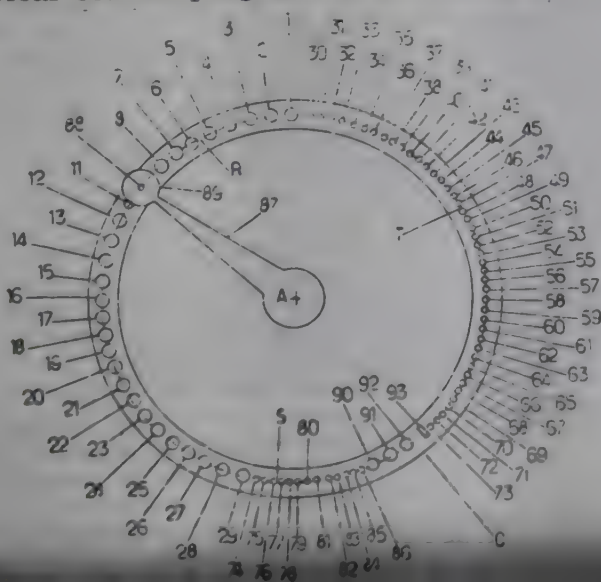
FAURE J M 11.02.80-FR-002938

J04 S03 (14.08.81) G01n-31/22 G01n-33/48 G01n-35

11.02.80 as 002938 (1144NS)

The appts. consists of a distributor (87); a row (s) of sample containers (74-86); a row (R) of reagent containers (1-29); a row (T) of reaction tubes (30-73); and at least one reading- or observation cell (93). The containers can be moved w.r.t. each other according to a predetermined program, so the distributor (87) can be automatically located over a sample container to deliver a sample to a reaction tube together with a reagent.

Rows(R,S,T) are pref. located on the same or several circles; and numerical control program is pref. used to drive stepper



motors to move the distributor and possibly some tubes or cells.

Appts. is used e.g. for analysis of a large number of samples in immuno-enzymology. (18pp Dwg.No.1)

HOLT/ ★ D16 68399 D/38 ★FR 2475-736
Quantitative testing of wine for suspected chaptalization - by comparing distillate specific gravity with reference samples of similar wine

HOLTZINGER G M G 12.02.80-FR-003016

S03 (14.08.81) G01n-09/18 G01n-33/14

12.02.80 as 003016 (448DJ)

The evaluation is made by comparing the wine with reference samples of named wines. Each reference sample is identified with type of vine, soil quality, hours of sunshine, humidity conditions and ripeness of grape. A statistically representative sample of the grape harvest is made, spread over the harvest period.

Pressing and fermentation follow according to the methods in use for the particular wine. The samples result from progressively increasing additions of sugar. The alcohol content of the distillate of each reference sample is measured, and the wine to be tested is matched to a reference sample. The saccharometer is graduated so that sugar quantity added to the wine can be read directly from the scale.

Used for checking a wine to determine if it has been chaptalized, i.e. sugar has been added to must prior to fermentation in order to raise artificially the alcohol content of the wine. Simple, rapid testing which reveals accurate quantitative evaluations of suspected chaptalization. (7pp)

PIEC D16 71082 B/39 #GB 1597-854
Peptide synthesis - using polynucleotide, carrier and/or enzymatic de protection and/or special methods of prod. purificn.

PIERCE CHEMICAL CO 09.03.78-NL-002578 (03.03.78-GB-008478)

B04 (16.09.81) *NL7802-578 C07c-103/52 + C07d-207/12

03.03.78 as 008478 (982WB)

Synthesis of a peptide chain having a predetermined sequence of amino acids comprises reacting a precursor which comprises a first amino acid segment of the sequence, having a free terminal carboxyl or amino gp., with a second amino acid segment having a free N-alpha amino gp. and a blocked carboxyl gp. susceptible to enzymatic hydrolysis when the precursor has a free terminal carboxyl gp., or a free carboxyl gp. and a blocked N-alpha amino gp. susceptible to enzymatic hydrolysis when the precursor has a free terminal amino gp., and deblocking the prod. peptide enzymatically in an aq. medium.

A pure peptide chain is obtd. using a simplified process. (16pp)

MASI D16 65136 B/36 =GB 1597-856
Cephalosporin prodn. from penicillin - by contact with extract of Cephalosporium acremonium free from cellular tissue

MASSACHUSETTS INST TECH 07.03.77-US-775156

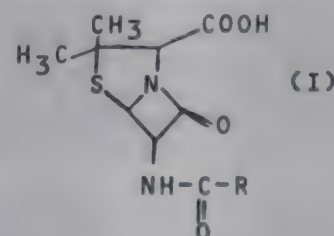
B02 (16.09.81) *J54067-097 + A61k-31/53 C07d-501/28 C12n-09 C12p-35/06

07.03.78 as 008951 (982WB)

Prepn. of a cephalosporin antibiotic comprises (a) providing a cell-free extract of Cephalosporium acremonium; (b) providing a source of starting material comprising a substance of formula (I); (c) contacting the extract and the starting material in a reaction zone while promoting oxygen transfer; (d) providing adenosine triphosphate as an energy source to the reaction zone; and (e) reacting the extract with the starting material.

In (I), R is 1-4C hydrocarbyl terminally substd. with -COOH, -NH₂, -NH.C(O)-CH₃, -COOH and -NH₂ in the D-form or -COOH and -NH.C(O)-CH₃.

The antibiotic is soluble in water and is effective against certain penicillin resistant staphylococci. (11pp)



NODA D16 83490 A/46 =GB 1598-019
Bacteriophage for genetic manipulation - sensitive to endonuclease only in DNA region coded for sheath protein prodn.

NODA INST SCI RES 26.04.77-JP-047409

B04 (16.09.81) *NL7804-483 + C12n-15

25.04.78 as 016242 (982WB)

A bacteriophage whose DNA molecule is endonuclease-sensitive only in the DNA region carrying genetic information for the

prodn. of coat proteins, is claimed. Pref. the bacteriophage is a temperate phage, esp. a lambdoid phage.

The lambdoid phage is gamma (IFO 20016), 434 (IFO 20018), 82 (IFO 20019), psi 80 (IFO 20020) or psi 170 (IFO 20021). The endonuclease is a restriction enzyme, esp. Eco RI, Bam HI or Hind III. Specific bacteriophage is gamma c 1857 RI h80 (ATCC 31285).

A large amt. of enzyme for tryptophan biosynthesis is produced. (8pp)

ROHG D16 87967 A/49 = GB 1598-050
Crosslinked acrylic pearl polymers with hollow beads - giving increased reactivity as enzyme carriers, etc.

ROHM GMBH 20.05.77-DE-722751

A14 B04 (A96) (16.09.81) *DE2722-751 C08f-224 + C08f-220/54
C12n-09/22 C12n-11/08

22.05.78 as 021011 (964RP)

Bead polymers in the form of hollow beads of dia 5-1000 microns are derived from monomer compsn. comprising at least one monomer contg. oxirane gp. and at least one monomer selected from acrylamide, methacrylamide, methylene-bis-acrylamide and methylene bis-methacrylamide together with opt. at least one further radically copolymerisable comonomer.

The comonomer compsn. contains more than 5 wt.% of at least one monomer compsn. contg. at least two C-C double bonds each of which is activated by a adjacent phenyl or carbonyl gp. The monomer compsn. also corresponds to the equation $x + 3y$ is at least 40 wt/o of the compsn. (where x is the total percentage by wt. of any (meth)acrylamide in the compsn. and y is total percentage by wt. of any methylene-bis-(meth)acrylamide in the compsn.

The polymers have high binding o- reaction capacity per unit of wt. They are used e.g. as carriers for enzymes or other biologically active materials. (7pp)

RIKA D16 80900 A/45 = GB 1598-231
Fungicide contg. Bacileucine-A or -B or its complex - used to control blast and sheath blight in rice, anthracnose and grey mould of cucumber etc.

RIKAGAKU KENKYUSHO (AJIN) 11.03.77-JP-026771

C03 (16.09.81) *J53113-013 C07g-11 + A01n-63

09.03.78 as 009475 (924RP)

Antibiotic Bacileucine A has a specific antimicrobial spectrum to pathogenic bacteria of plants and is an acidic peptide substance with (a) elemental analysis of C 56.28%, H 8.10%, N 9.20%, S 0.25% and O 26.22%; (b) mol. wt. of 13,000; (c) specified IR and UV spectra; (d) soluble in (m)ethanol, acetone, (m)ethyl acetate, pyridine, chloroform and water; (e) positive to Folin's reagent and biuret reaction and negative to the Molisch reaction and ninhydrin reaction; and (f) isoelectric point at pH 5.2 (+ -0.2).

Bacileucine A or B is produced by culturing bacterium of the genus *Bacillus* and sepg. and collecting the prod. from the culture medium. Pref. bacterium is *Bacillus* sp. AW-3 (ATCC 31268). Cultivation is conducted at pH 6.2-8.2, at 15-35 deg. for 24-168 hrs.

The cpds. are useful as effective ingredients for agricultural and horticultural fungicides. They have no detectable phytotoxicity to plants and no adverse effect on the human body. (19pp)

ROTA-★ D16 68423 D/38 ★GB 1598-284
Compositing container - of rigid plastic panels with slidably interfitting edges

ROTAMOULD LTD 19.04.78-GB-015544

(16.09.81) C05f-09/02

19.04.78 as 015544 (1358BZ)

A container comprises two sets of panels arranged alternately to form a cylindrical container and of cross-sections such that the edge of one panel can slidably engage in the edge of an adjacent panel. The panels are pref. perforated and the container has a perforated cover.

The panels may be flat or transversely curved to form a round container, are of rigid plastics, e.g. PVC, and are supplied as a kit. The interfitting edges pref. comprise one with a bifurcate edge forming a circular aperture open at the outer side to receive a correspondingly shaped male edge on the adjacent panel. (6pp)

KIRI★ D16 68501 D/38 ★GB 2071-142
Low original gravity beers prodn. - by mixing high gravity fermenting wort with low gravity wort, then fermenting

KIRIN BREWERY KK 20.02.80-JP-019881

(16.09.81) C12c-11/04

17.02.81 as 004971 (478HM)

Brewing process is as follows (a) a high-gravity liq.(I) is mixed with a low-gravity liq.(II); and (b) the mixt. is fermented to give a beer of original gravity 6-9 deg. of Plato (deg.P). (I) is a fermenting wort of original gravity 11-13 deg.P which has passed

Step (a) (I) may be prepd. from malt, or malt contg. 0-50% prer. 0-40% by wt. adjunct (rice, starch, etc) and pref. has original gravity 16-20 deg.P. (I) opt. may contain hops, and is from a mash which is opt. the same as the one from which (II) is prepd. (e.g. by dilution). (II) pref. has original gravity 4-5 deg.P; total N-content at least 30mg/100g; and formol N-content at least 9mg/100g. Any conventional (opt. fermenting) wort may be used. The mixt. to be fermented contains (I):(II) in vol. ratio 1:2-5.

Process affords a beer of low original gravity which has a flavour comparable to that of regular beers. (6pp)

KISK-★ D16 D/38 ★HU T020-621
Prodn. of red wine from black grapes - by treating with sulphur cpd., heating, concentrating under vacuum and fermenting

KISKUNHALASI ALLAMI 12.10.79-HU-KI0785

(28.08.81) C12g-01/02

UEDA/★ D16 68772 D/38 ★J5 6096-696
Ribonucleic acid prepn. - by culturing *Bacillus* microorganism which is sensitive to surfactant in liq. culture medium

UEDA S 28.12.79-JP-171926

B04 (04.08.81) C12p-19/34 C12r-01/12

28.12.79 as 171926 (5KB)

Method comprises culturing *Bacillus* microorganism which is sensitive to surfactant and produces ribonucleic acid, in liq. culture medium and recovering ribonucleic acid accumulated in the culture medium. Ribonucleic acid is used as the starting material for sodium 5'-inosinate and sodium 5'-guanylate.

The varieties can be derived from the parent strains such as *Bacillus subtilis* IFO3214 through conventional mutation-inducing means. An example of the variety is *B. subtilis* N-32, FERM-P5335 (sensitive to sodium dodecyl sulphonate). The sensitivity to surfactant means that the variety is more bacteriolised than the parent strain in the bacterial suspension contg. surfactant. (3pp)

MITU★ D16 68773 D/38 ★J5 6096-697
Ferredoxin prodn. from *Thermus thermophilus* microorganism - by culturing the bacterial strain mashing obtd. body and sepg. out prodn., useful for activating cellular metabolism

MITSUBISHI CHEM IND KK 27.12.79-JP-171721

B04 (04.08.81) C12p-21 C12r-01/*

27.12.79 as 171721 (5RP)

The method is effected by mashing bacterial body of *Thermus thermophilus* and separating thermo-resistant ferredoxin stable at 67 deg.C from the mash.

T. thermophilus HB8(ATCC 27634) and *T. thermophilus* HB27(FERM-P5160) can be used. The bacterial strain is cultured at 75 deg.C for 6 hrs. and bacterial body is collected at the later logarithmic phase. Then the bacterial body is treated with supersonic wave for mashing. Thus obtd. ferredoxin has mol. wt. ca. 10000, IEP at pH 3.1 at 4 deg.C, sharp peak at 283 nm and wide maximum absorption at ca 400 nm, is stable at 67 deg.C for 45 mins. and at pH 3.5-9.0 and shows higher activity than spinach ferredoxin.

Ferredoxin is low molecular protein which contains Fe atom and inorganic sulphide and serves as electron transporter. It is useful as activator for cellular metabolism. (4pp)

SHMA★ D16 68774 D/38 ★J5 6096-698
Colorimetric determ. of enzyme activity - using NADH reagent to react with pyruvic acid released by enzyme activity on substrate e.g. l alanine

SHIMADZU SEISAKUSHO KK 27.12.79-JP-172380

B04 (04.08.81) C12q-01 G01n-21/75

27.12.79 as 172380 (5BZ)

The method is to determine micro-amt. of enzyme by rate assay consists preparing the first standard soln. of enzyme substrate (a) the reagent (c) for reaction product (d) of (a) and (b) that is absorbent, the enzyme (e) for the reaction between (c) and (d) and known amt. of (d) in water. A second standard soln. similar to the first by with vol. of water instead of (d) is prepared. The absorbency of the first and second standard soln. are measured and the equipment constant is calculated from the difference between their absorbency. (5) The test soln (e) as the second standard solution is prepared by using the same amt. of the liquid sample contg. the enzyme (b) to be tested instead of water, and its absorbency measured against the second standard soln. and the activity of the enzyme is calculated from the difference between their absorbency and the equipment constant.

In the case of determining the activity of GPT (glutamate-pyruvate- transaminase) L-alanine and alpha- ketoglutaric acid are used as the substrate (a). The reaction product (d) is glutamic acid and pyruvic acid and pyruvic acid is reacted with the reagent (c) of NADH at the presence of the enzyme (e) of LDH to form lactic acid. The activity of GPT can be determined by

SHMA ★ D16 68775 D/38 ★ J5 6096-699
Determining activity of micro-amts. of enzyme - by preparing two standard solns. and using them to calculate equipment constant, measuring absorbency of test soln.

SHIMADZU SEISAKUSHO KK 27.12.79-JP-172381

B04 (04.08.81) C12q-01 G01n-21/75

27.12.79 as 172381 (05AT)

Determination of a micro-amt. of enzyme through a rate assay is characterised by (1) prepg. a first standard soln. by dissolving the substrate (a) for the enzyme (b) to be tested and adding (c) which is the reaction prod. between (a) and (b) and shows absorbency as the standard substance in the soln., (2) prepg. the second standard soln. as the first standard soln. but with adding the same vol. of water instead of (c), (3) measuring the absorbency of the first and the second standard soln., (4) calculating the equipment constant from the difference between their absorbency, (5) prepg. test soln. (d) as the second standard soln. using the same vol. of the liq. sample contg. the enzyme (b) to be tested instead of water, (6) measuring the absorbency of the test soln. (d) and the second standard soln. and (7) calculating the activity of the enzyme from the difference between their absorbency and the equipment constant.

By this method the activity of enzymes e.g. ALP, gamma-GTP, CHE, LAP, CPK, etc. can be determined using p-nitrophenol, 5-amino-2-nitrobenzoic acid, choline, p-nitroaniline and glucose-6-phosphoric acid respectively as the standard substance (c).

The activity of enzymes can be determined correctly through the simple process. (4pp)

HITA ★ D16 68946 D/38 ★ J5 6097-863
Analytical determ. of amylase concn. - using enzyme electrodes to determine glucose and maltose derived glucose concn.

HITACHI KK 07.01.80-JP-000031

B04 J04 (06.08.81) C12q-01/40 G01n-27/46

07.01.80 as 000031 (173BZ)

Amylase concn. in the sample is determined by an electrochemical method comprising: (1) admixing the sample (e.g., digestive juice) with soln. of substrate for amylase (e.g., soluble starch); (2) bringing the liq. mixt. into contact with the first detector (I) equipped with an enzyme electrode for detecting glucose alone (e.g. oxygen electrode combined with immobilised glucose oxidase membrane) to determine the initial glucose concn; (3) leading the effluent from (I) to the second detector (II) equipped with an enzyme electrode capable of detecting maltose and glucose (e.g., an enzyme electrode composed of immobilised alpha-glycosidase/glucose oxidase membrane and oxygen electrode) to determine the sum of initially present glucose and maltose-derived glucose; and (4) calculating the amylase concn. from the difference between output signals obtained from (I) and (II).

The method is used for rapid analysis of amylase (e.g., analysis of alpha-amylase in blood) for diagnostic purpose, etc. The method is substantially free of interference by various substances present in the sample. No expensive reagent (such as coenzyme), nor sophisticated apparatus is necessary. (6pp)

HITA ★ D16 68947 D/38 ★ J5 6097-864
Glutamic acid-oxaloacetic acid transaminase analysis - by contacting sample with immobilised glutamic acid decarboxylase and determining carbon dioxide present then determining total

HITACHI KK 07.01.80-JP-000032

B04 J04 (06.08.81) C12q-01/52 G01n-27/46

07.01.80 as 000032 (173AT)

Glutamic acid-oxalacetic acid transaminase contained in a body fluid sample is analysed by an electrochemical method comprising (1) contacting the sample with first detector (I) composed of immobilised glutamic acid decarboxylase and CO₂ electrode to determine CO₂ attributable to glutamic acid initially present in the sample, (2) adding, to the effluent from (I), alpha-keto glutaric acid and aspartic acid to effect enzyme reaction, (3) leading the reaction mixt. to second detector (II) having the same set-up as (I), to determine the total glutamic acid quantity, and (4) calculating the transaminase concn. from the difference between the total glutamic acid quantity and initial glutamic acid quantity.

The method permits rapid analysis of glutamic acid-oxalacetic acid transaminase for diagnostic purpose. The method is free of interference by substances present in the sample. No expensive reagent or sophisticated appts. is necessary. (4pp)

HITA ★ D16 69102 D/38 ★ J5 6098-649
Enzyme electrode - obtd. by forming porous membrane impermeable to the enzyme, injecting enzyme soln. into membrane and mounting on analysis electrode

HITACHI KK 11.01.80-JP-001307

J03 (08.08.81) C12q-01 G01n-27/30

11.01.80 as 001307 (173KB)

Enzyme electrode is fabricated by (i) preparing asymmetrically porous membrane composed of thin skin layer permeable to the substrate but impermeable to the enzyme itself and thicker enzyme-holding layer having sufficient porosity for supporting necessary quantity of the enzyme, (ii) injecting the enzyme soln. by pressure filtration technique from the side of the enzyme-holding layer into the porous membrane, followed by immobilising the enzyme, and (iii) mounting the resulting immobilised enzyme membrane on an analysing electrode, with the skin layer outside.

The porous membrane permits loading greater quantity of the enzyme. The skin layer prevents staining or clogging of the porous layer with protein, etc., present in the sample. (6pp)

NODA D16 43129 B/23 = J8 1036-178
Spore-formation inducing factor SF-1 - used to increase productivity of antibiotics and enzymes

NODA INST SCI RES 29.09.77-JP-116139

B04 (22.08.81) *J54052-795 + C07c-61/29 C12p-07/40 C12r-01/64 29.09.77 as 116139 (108AS)

Spore-formation including factor SF-1 substance has the molecular formula C₁₅H₂₂O₂ and is prepd. by culturing a microorganism belonging to the genus of Sclerotinia which is capable of producing the SF-1 substance and recovering the objective cpd. Cultivation is at 20-32 deg.C for 5-10 days. The Sclerotinia S-1 strain is a new strain and is deposited as FERM-P 421 and ATCC 20497.

The active cpd. accelerates the formation of spore of various bacteria, partic. fungi and therefore is important in the industrial cultivation of fungi. For example, it increases the productivity of antibiotics such as cephalosporin and enzymes such as protease or amylase. (J54052795) (9pp)

AMCY D16 79238 V/46 = NL -167-594
Isolation of antibiotic AV-290 from Streptomyces candidus - by pptn from clarified broths using long chain primary alkyl alkali metal sulphonates

AMERICAN CYANAMID CO 27.04.73-US-355240

B04 C03 (D13) (17.08.81) *BE-814-267 A23k-01/17 A61k-35/74

24.04.74 as 005514 (913MR)

Antibiotic AV290 is produced by culturing Streptomyces candidus NRRL 3218. The fermented culture liquid is acidified to pH 1.9-2.1, opt. after filtering, and cpd(s) added of formula CH₃(CH₂)_nOSO₂-OM (where n is 9-17; and M is Na or K). The antibiotic is precipitated as the alkylsulphate complex, sepd. and dried.

The complex obtd. by this new method can be added directly to animal feed. Typically the complex is the Na decyl or lauryl sulphate, or is a mixt. of the cetyl and oleyl sulphates. Virtually all the antibiotic is sepd. from the culture medium. (8pp)

HAYB D16 41710 V/23 = NL -167-717
Pullulan esters and/or ethers - as water activated adhesives for paper, textiles, wood, metal, glass and plastics

HAYASHIBARA BIOCHEM 23.01.73-JP-009186

A81 G03 (17.08.81) *BE-810-085 C08b-37 C08l-05 C09j-03/02

22.01.74 as 000831 (922BZ)

An adhesive compsn. comprises a 5-40 wt.% dispersion in water or a water-acetone mixt. of a pullulan ester of a carboxylic acid and/or an alkyl, hydroxyalkyl and/or carboxyalkyl ether of pullulan, the alkyl gp. contg. up to 4C. The dispersion may also contain a polyol (ethylene glycol) in amts. less than the pullulan ester and a hydrophilic macromolecular cpd. (dextrin) in amts. of less than a third of the pullulan ester. The adhesive may be used to bond paper, fibres or wood and is more resistant to moisture and water than those known of pullulan itself. (7pp)

UKSO- D16 12628 R/08 = NL -167-725
Antitumour l-asparaginase isolated from bacterial - cultures at high pH

UK SEC SOCIAL SERV (WAD) 23.08.68-GB-040344 (23.08.68-GB-040343)

B04 (17.08.81) *BE-737-859 + C12n-09/82

22.08.69 as 012878 (913PW)

L-Asparaginase is obtd. from a bacterial culture of Erwinia species, which produces the material in considerably greater amounts than E.coli or Serratia marcescens. The mol. wt. of the L-asparaginase produced by this method is generally 130,000-150,000. It is used as a physiological salt soln. of 15 mg/ml concn. asparaginase, with typical dose rates of 0.05-5 mg/kg, for the

treatment of leukaemia and certain cancers. The species *Erwinia carotovora* is very active and gives a high prod. yield. (6pp)

UKSO. D16 12628 R/08 = NL-167-726
Antitumour L-asparaginase isolated from bacterial - cultures at high pH

UK SEC SOCIAL SERV (WAD) 23.08.68-GB-040344 (23.08.68-GB-040343)

B04 (17.08.81) *BE-737-859 C12n-09/82 + A61k-37/54
22.08.69 as 012879 (913PW)
L-Asparaginase is recovered from a bacterial culture or a suspension of bacteria isolated from the culture by addition of alkali to give pH 9.0-12.5. The bacterial cells are ruptured and the L-asparaginase released in soluble form; the mixt. is allowed to stand so that the L-asparaginase goes into soln. and is then sepd. from the cell residues.

Pref. a culture of *Erwinia carotovora* is used. The alkaline soln. is acidified to pH 3-5, and the precipitated cell residues are sepd. off. The L-asparaginase is used as an injectable physiological salt soln. for treating leukaemia and certain cancers, using soln. concns. of 10-20 mg/ml, and doses of 0.05-5 mg/kg. (4pp)

ELIL D16 07877 H/23 = NL-167-727
Antibiotic A204 coccidiostat, insecticide, acaricide, antimicrobial

ELI LILLY & CO 06.12.68-US-801215 (23.02.68-US-707841)

B04 C03 (17.08.81) *J72019-753 + C12p-07/40

24.02.69 as 002863 (913PW)

Antibiotic A204, which consists of antibiotic A204 I and a smaller amt. of antibiotic A204 II, by cultivating a suitable *Streptomyces albus* strain. Pref. the antibiotic A204 is obtd. as the free acid or as its alkali(ne earth) metal, ammonium, amine and/or silver salt from the culture medium. With the exception of the silver salt, the other salts are used in plant protection formulations, and in pharmaceutical and veterenary preps.

The properties of antibiotic A204 I and II are given. (10pp)

PFIZ D16 46851 Y/26 = NL-167-728
Antibiotic macrobicyclic peptides 41043 and 41494 - obtd. by cultivation of *Pseudonocardia fastidiosa* ATCC 31181

PFIZER INC 04.02.76-US-655075

B04 (17.08.81) *US4031-206 A61k-35/74 + C12p-21/04

17.01.77 as 000424 (913PW)

Macromolecular peptide with antibiotic properties is produced by submerge culturing *Pseudomonas fastidiosus* sp. nov. (Routien, ATCC 31181) under aerobic conditions in an aq. medium contg. assimilable carbon and nitrogen sources.

Two antibiotics nos. 41043 and 41494 are recovered as a mixt. from the mycelium and/or the formed culture filtrate. The properties of the two antibiotics and the *Pseudomonas* strain are given. (9pp)

ENIE-★ D16 D/38 ★SE 8100-741
Alpha galactoxidase prodn. - by culture of *Saccharomyces cerevisiae*

ENI-ENTE NAZ IDROCA 01.02.80-IT-019187

(D17) (31.08.81) C12n-09/40 C12p-19/02

30.01.81 as 000741 (903WB)

Alpha-galactoxidase (I) is produced by culture of *Saccharomyces cerevisiae* (II) at 20-40 deg.C. Raffinose can be hydrolysed using (I) in the presence of (II) or as an extract.

KZEP=★ D16 69264 D/38 ★SU-791-379
Bacterial allergen microbiological prodn. - includes PPTN. from bacteria culture medium with acetic acid and fractionation on chromatographic gel

KAZAN EPIDEMIOLOGICAL MIC 15.08.78-SU-660855

B04 (31.12.80) A61k-39/35

15.08.78 as 660855 (70VE)

Bacterial allergens are obtd. by cultivating microorganisms in a liquid nutrient medium; then sepg. the biomass; pptn. of the prod. from the supernatant liquid; dissolving the ppte.; purifying and sterilising.

The specificity of the allergens is improved by fractionating the dissolved ppte. by the gel-chromatography and collecting the fraction having mol. wt. above 30,000.

Typically, allergen against intestinal bacilli was obtd. by this method from concd. mother liquor contg. allergens of two strains of intestinal bacilli cultivated in a 1:2 mixt. of Marten broth and Hottinger broth.

Other allergens can be prepd. against *Staphylococcus aureus*, streptococci of group A and *Proteus mirabilis*. Bul. 48/30.12.80. (3pp)

MIME=★

D16

69503 D/38 ★SU-792-092

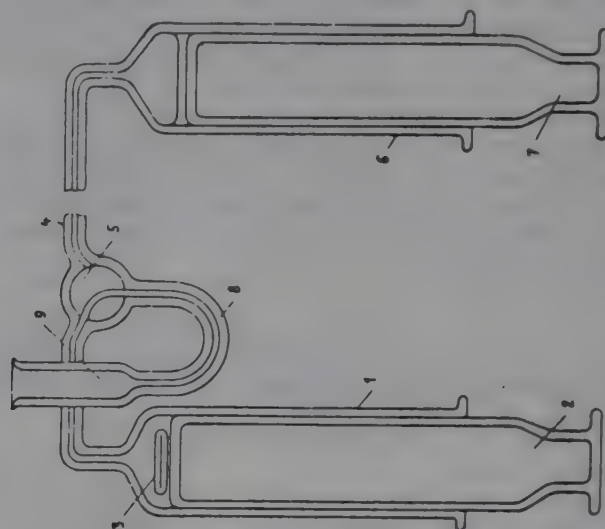
Device for measuring micro-quantities of gas in liquids - has two syringes linked by three-way cock to measuring capillary

MINSK MEDICAL INST 20.12.78-SU-699082

B04 J04 S03 (30.12.80) G01n-07/14 G01n-33/48

20.12.78 as 699082 (29MI)

Device for determining micro-quantities of gases dissolved in liquids, e.g. biological liquids, comprises syringe with piston (1,2), mixing attachment (3) located inside the syringe, measuring capillary (4), connected at one end to the syringe, and a stopcock. Determination accuracy is increased, by eliminating the reverse dissolution of the gases separated from the solution, by adding another syringe and piston (6,7) connected to the other end of the measuring capillary (4), plus a U-shaped capillary (8) terminating in a funnel (9). The stopcock is positioned on the measuring capillary between the two syringes and the U-shaped capillary is also connected to the stopcock, which is made 3-way. Bul. 48/30.12.80. (3pp Dwg.No.1)



BIOT.

D16

61639 B/34 #US 4286-660

Oil extn. by flooding with water - contg. glyco-lipid nonionic surfactants made by biosynthesis (NL 14.8.79)

GES BIOTECH FORSCH (GBFB-WINT) 11.02.78-DE-805823 (23.03.79-US-023295)

E13 H01 Q49 (01.09.81) *DE2805-823 E21b-43/22 + C12m-01/02 23.03.79 as 023295 (945JB)

Petroleum deposits and oil shale flooding is effected using a material produced by (A) submerged aerobic culture of hydrocarbon enriched microorganisms in a (semi) continuous process with addn. of organic C sources, inorganic nutrients dissolved in water and occasionally growth materials and (B) sepn. of the cell material from the aq. phase.

In (A), glycolipids (I) are produced as effective material using 1-35 vol. % hydrocarbon mixt., at pH 3-9 and 20-50 deg.C. In (B), (I) are sepd. as the aq. phase using temp., pH or osmotic shock or through extn. The aq. phase is used directly or added to the flooding water.

Yields of petroleum recovered are improved. (10pp)

ERIC/

D16

41742 C/24 #US 4286-730

Antibiotic wafer applicator - with needle for piercing and transfer and sleeve for temporary retention

ERICSSON M 16.11.78-SE-011840 (27.11.79-US-097831)

+ Q36 Q38 (01.09.81) *DE2946-216 B65h-03/22

27.11.79 as 097831 (006JB)

An antibiotic disc is applied to a surface, esp. of a culture medium, by a piercing needle reciprocable Vertically through the bore of a vertically-reciprocable presser guided in a hole in a support plate.

Discs are placed on the latter and pierced by the needle, before moving the plate to align the hole with the needle and presser which operate in sequence. (9pp)

SEED/

D16

31189 D/18 = US 4286-964

Hydroxy-bearing substrate derivs. - prepd. by reacting substrate with epoxy cpd. followed by aromatic amino-alcohol or -thiol

SEED B S 12.10.79-US-084509

A11 B04 (A96) (01.09.81) *EP-27-377 C08b-15/06 + C08b-11/20

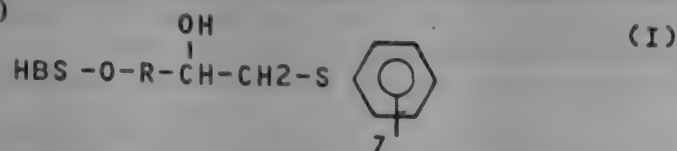
G01n-31/22 G01n-33/16

12.10.79 as 084509 (964WB)

Stable modified hydroxyl bearing substrate comprises substd. phenyl thioether gps. having structural units of formula (I). In (I), HB5 is hydroxyl bearing substrate, R is alkyl, hydroxyalkyl, aryl, alkylaryl, alkylthioether, arylether, alkylthioether or hydroxyalkanyl ether. Z is prim. amine, sec. amine, tertiary amine, or quaternary ammonium salt.

CH₂-CHOH-CH₂-O-(CH₂)₄-O-CH₂-.

The substrate has covalently bonded thereto prim. aromatic amines which can be diazotised. The diazotised substrate selectively covalently binds proteins, polypeptides, peptides, nucleic acids, RNA, single stranded DNA, and nucleic acid hybrids. (6pp)



PITM ★ D16 69723 D/38 ★ US 4287-178
Feline viral rhinotracheitis vaccine - for immunising cats and to stimulate antibody prodn. for protection against the virus

PITMAN-MOORE INC 02.11.79-US-090849 (25.03.74-US-454345)

B04 C03 (01.09.81) A61k-39/12

02.11.79 as 090849 (1248BZ)

Feline viral rhinotracheitis (FVR) vaccine for immunising cats comprises at least 10000 tissue culture infectious (TCI) doses of attenuated virus per unit dosage. The virus is attenuated by serial propagation in feline tissue culture at an incubation temp. lower than the temp. at which it remains virulent and does not attenuate on such repeated serial passages. The attenuated virus is subjected to sufficient passages until intranasal admin. to susceptible cats shows that it does not cause pathological symptoms.

The FVR virus is attenuated by at least 7 serial passages over a 2-7 days through feline tissue cultures in nutrient fluid at 30 deg.C plus or minus 2 deg.C. The live FVR virus is pref. introduced into culture medium contg. viable feline tongue cells until a virus of 10,000-10 million TCI doses is obtd. The optimum passage time is determined by standard cytopathic observations.

The FVR vaccine or parenteral admin. immunises cats against FVR and stimulates prodn. of protective antibodies comparable to those produced by natural FVR infections. The FVR virus can be attenuated by as few as 7 serial passages at 30-32 deg.C.

TAVO- ★ D16 69724 D/38 ★ US 4287-179
Vaccinating fish against enteric red mouth - by simple immersion in a bacterin of killed cells of *Yersinia ruckeri*

TAVOLEK INC 10.01.80-US-111142 (31.08.78-US-938604)

B04 C03 (01.09.81) A61k-39/02

10.01.80 as 111142 (916BZ)

Fish weighing one gram or more are immunised against Enteric Redmouth by immersion in a vaccine consisting of killed cells of *Yersinia ruckeri*. The vaccine contains at least 10,000 cells per ml. and the immersion time is at least 5 seconds.

The vaccine is prepared by extracting a kidney sample from a fish infected with the disease and cultivating this on tryptic soy agar at 20 deg.C for 24 hours.

The method does not require pressurised or hyperosmotic treatment. Injection is controlled in salmonids such as rainbow trout and chinook salmon. (6pp)

BAXT D16 62289 D/34 = US 4287-180
Prodn. of activated prothrombin complex concentrates - with control of degree of activation by control of activation conditions

BAXTER TRAVENOL LABS INC 28.01.80-US-116186

B04 (01.09.81) *WP8102-105 A61k-35/14

28.01.80 as 116186 (982JB)

A patient having an inhibitor of a blood clotting factor is treated by admin. of an effective dose of an aq. compsn. including, in units per ml., factor VIII correctional activity (2-35); prothrombin (1-10); thrombin (less than 0.003); factor VII (37-190); factor VIIa (8-80); factor IX (15-112); factor IX precursor (0-30); factor X (1-30); and factor Xa (1-10).

Pref. the therapeutically effective dose is more than 25 factor VIII correctional units/kg. of patient wt. The aq. compsn. is greater than 1-1 units of heparin per ml. Compsn. is used to treat blood clotting factor inhibitors. Inhibitors. (10pp)

PFIZ ★ D16 69725 D/38 ★ US 4287-182
Antibiotics cp-54715 and cp-54716 prepn. - by cultivation of *catenuloplanes japonicus* atcc 31637 or 31638

PFIZER INC 02.07.80-US-165407

B04 (01.09.81) A61k-35

02.07.80 as 165407 (916BZ)

Antibiotics CP-54715 and CP-54716 prepared by cultivation of *catenuloplanes japonicus* ATCC 31637 or ATCC 31638. CP-54715 is soluble in methanol and chloroform but insoluble in heptane. Its elemental analysis C 49.62%, H 6.16%, N 1.04% and Cl 5.16%. It decomposed at 166-176 deg.C, the optical rotation in sodium D light at 20 deg.C in methanol is minus 8 deg. The UV spectrum shows a max at 289 nm with an extinction coefficient of 29 at 1% concentration in methanol. For CP-54716, the solvent solubilities

are the same and the elemental analysis is C 50.89%, H 6.60%, N 1.25%, Cl 6.34%. The decomposition point is 140-155 deg.C, the optical rotation is minus 19 deg, the UV max was 289 nm and the extinction coefficient is 30.

The antibiotics are active against gram-positive and aerobic organisms. (7pp)

SUNR D16 37463 C/21 = US 4287-185
Reagents for detection and determ. of virus - contg. polypeptide as active component

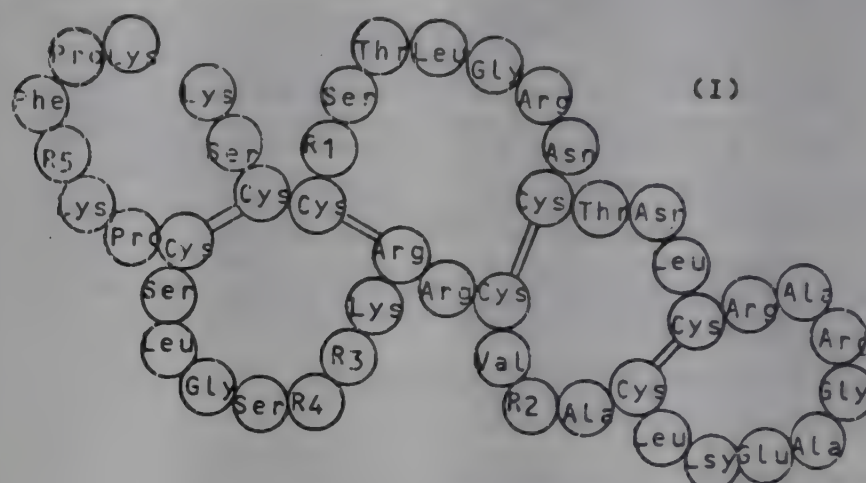
SUNTORY LTD (SUNC) 09.10.78-JP-124412

B04 (01.09.81) *J55050-897 A61k-37 C07c-103/52

09.10.79 as 082657 (983MR)

Quantitative detection of viruses comprises (a) contacting a virus infected cell culture with a new polypeptide and its salts of formula (I) (where R1-5 are each residues of lysine, asparagine, leucine, threonine and aspartic acid, or R1 is arginine, R2 and R5 are glycine, R3 is isoleucine and R4 is serine, the double line symbols are -S-S- bonds) in an amt. sufficient to selectively kill virus infected cells, (b) incubating the cell culture for time sufficient to kill cells infected with virus, and (c) measuring the number of cells in the cell culture which are killed by the virus.

The polypeptides are used as carcinostatics and as agents for determining and detecting viruses. (14pp)



FARB D16 51841 C/30 = US 4287-186
Antibiotic insecticide and acaricide compsns. - contg. nikkomycin or its novel components

BAYER AG 09.01.79-DE-900591

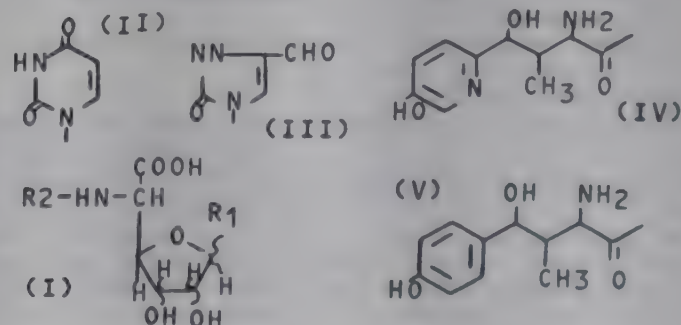
C02 (01.09.81) *DE2900-591 A61k-31/71

21.12.79 as 106223 (982JB)

Arthropods are combated by applying an effective amt. of an antibiotic which (a) is colourless, very soluble in water and pyridine but insol. in other organic solvents, gives a positive reaction with ninhydrin, Na metaperiodate/benzidine and KMnO₄ and gives a yellow colouration with FeCl₃.

Also, (b) has specific UV and IR spectra, (c) yields uracil, amino-hexuronic acid and an amino acid contg. a pyridine ring on chemical degradation, (d) is amphoteric and has an isoelectric pt. at pH6, and (e) consists of C, H, O and N, or at least one of the active components of the antibiotic mixt. The active agent is applied opt. together with a diluent or carrier.

Pref. the cpd. is of formula (I) (where R1 is a gp. (II) or (III) and R2 is a gp. (IV) or (V)). (9pp)



SYNT D16 13671 D/08 = US 4287-300
Immunoassay system including a polyionic charged species - and labelled component, giving sensitive results with impure antibodies

SYVA CO 26.07.79-US-061099

B04 S03 (01.09.81) *WP8100-261 C12q-01/70

G01n-33/54

+ C12n-09/96

26.07.79 as 061099 (964WB)

Determn. of presence of analyte in sample is described, the

analyte being a member of a specific binding pair consisting of ligand and antiligand. A detectable signal is obtd. related to the amt. of analyte by employing a signal producing system comprising and enzyme labelled specific binding member and a polyionic charged specific binding member which attracts an oppositely charged molecular substrate or cofactor. The detectable signal level is related to the average proximity of the charged member to the enzyme labelled member.

Method comprises combining in an aq. assay medium, (1) the sample, (2) the charged specific binding member, (3) the enzyme labelled specific binding member and (4) substrates and cofactors for the enzyme. At least one substrate or cofactor is a charge macromolecule of opposite charge from the polyionic charged material. At least one of (1), (2) and (3) is a ligand and at least one of the remainder is an antiligand, so that a complex may be formed between the two binding members. The detectable signal produced by the enzyme as compared with a known signal is determined.

Method is used to determine drug or other component present in very small quantities. (17pp)

ASTL/ ★ D16 69772 D/38 ★ US 4287-301
Automatic streaking of agar plates - removed from stack and contacted by oscillating disposable tube

ASTLE T W 21.04.76-US-679016

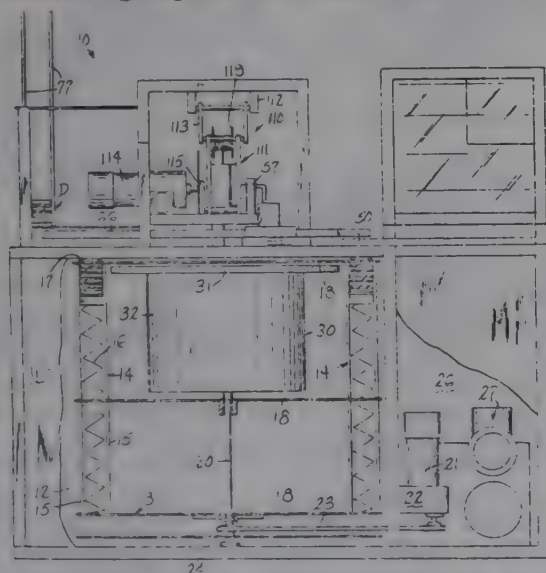
S05 (S03) (01.09.81) C12m-01/26 C12q-01/24

21.04.76 as 679016 (295AT)

An agar plate is removed from a refrigerated stack and its lid is removed. The exposed plate is then transferred to a streaking station where it is contacted by a flexible tube carrying the sample to be applied. During the streaking, the plate follows an arcuate path and the tube is oscillated. Finally the streaked plate is removed and stacked after its lid has been reapplied.

Pref. a magazine holds various agar stacks of different media and pref. each stack is biased upwards by a spring so that its top lies in a constant plane. Pref. the lid is removed by a suction mechanism.

The appts. streaks agar plates automatically. (15pp Dwg.No.1)



ELIL ★ D16 69773 D/38 ★ US 4287-302
16-Hydroxy- and/or N-demethyl- antibiotic A23187 alkyl ester prepn. - by culturing *Streptomyces chartreusis* NRRL 11407 in presence of antibiotic A23187 alkyl ester

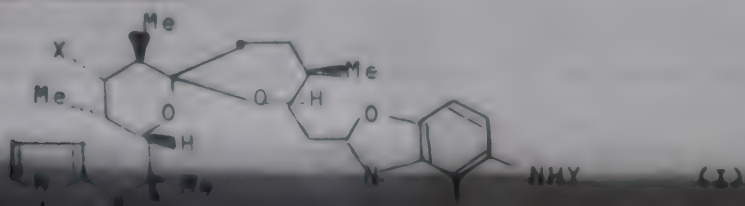
ELI LILLY & CO 30.07.80-US-173511 (30.12.78-US-971616)

B02 (01.09.81) C12p-17/18 C12r-01/52

30.07.80 as 173511 Div.ex.4247703 (914HM)

Prepn. of 16-hydroxy A23187 alkyl ester, 16-hydroxy-N-demethyl A23187 alkyl ester or N-demethyl A23187 alkyl ester, all represented by formula (I) (where either X is H or OH and Y is H, or X is OH and Y is Me; and R is 1-4C alkyl) comprises; cultivating *Streptomyces chartreusis* NRRL 11407 in a medium contg. assimilable sources of C, N and inorganic salts under submerged aerobic conditions; adding a lower alkyl ester of antibiotic A23187 (i.e. I where X is H and Y is Me) to the medium; and incubating the mixt. until a substantial amt. of (I) is produced.

The corresp. free acids (I; R / H) may be obtd. by sepg. and recovering (I) from the culture medium and hydrolysing it under alkaline conditions.



The free acids (I; R is H) are ionophoric and can form complexes with certain divalent cations in preferential order. Thus they are useful as ion transport cpds. and also where selective removal of a particular cation is desired; e.g. they inhibit Ca^{++} -dependent ATP-ase and accelerate oxygen uptake by liver mitochondria, and they can be used for studying cation binding and transport selectivity patterns. (9pp)

NADI ★ D16 69774 D/38 ★ US 4287-304
Prepn. of fermentable sugars from starch from dry milled corn - by mild hydrolysis, removal of insolubles, and further hydrolysis

NATIONAL DISTILLERS CORP 14.01.80-US-112033

C03 (D13 D17) (01.09.81) C12p-07/14

14.01.80 as 112033 (478AT)

The starch fraction (contg. H_2O -insol. protein and oil, and one or more H_2O -soluble components from sugar, lipid, protein, vitamin, and mineral) derived from whole dry milled corn is converted into a sterile aq. soln. of fermentable sugar (I) as follows: (a) an aq. slurry of the starch is liquefied by hydrolysis to afford a sterile aq. partial starch hydrolysate slurry (components unaltered); (b) the resulting slurry is sepd. into (i) an aq. sterile slurry of partial starch hydrolysate contg. part of the H_2O -soluble components, and (ii) an aq. slurry of H_2O -insol. protein and oil and the remaining part of the H_2O -soluble components; and (c) the relatively thin aq. slurry (b) (i) is saccharified to afford the sterile aq. soln. of (I).

Process efficiently converts starch derived from dry milled corn to (I) (in turn fermentable to EtOH), while allowing recovery of all of the H_2O -insol. protein (an animal feed, etc.) and oil content of the starch. In addn., only minimal amts. of fresh H_2O need be used in the process (simplifying recovery of EtOH), and most of the H_2O -soluble material is available for the subsequent fermentation of (I). (6pp)

USAT ★ D16 69775 D/38 ★ US 4287-305
Immobilisation of live microorganisms - by coating support with gelatin, crosslinking with glutaraldehyde and contact with live organisms

US DEPT OF ENERGY 30.06.76-US-701479

A96 B04 (01.09.81) C12n-11/08 C13n-11/14

30.06.76 as 701479 (478AT)

An aggregate support (I) coated with a crosslinked coating which in turn has attached to it live, metabolically active microorganisms is prepd. as follows: (a) (I) is treated with an H_2O -dispersible gelatin; (b) the gelatine is crosslinked by reaction with glutaraldehyde (II); (c) coated particles are treated with live microorganisms; and (d) the mixt. is incubated so that the microorganisms continue to grow and reproduce.

(I) is pref. metal, porcelain, stoneware, glass, polyethylene, polypropylene, nylon, or styrene. In the crosslinking of the coating the degree is not critical, but 10 vol.% gelatin and 0.1-10 vol.% (II) are pref. used.

The microorganisms readily attach to the coating where their growth and metabolic activity is enhanced, even though they are immobilised. The immobilised organisms are suitable e.g. for the fermentation of waste whey to give lactic acid. (4pp)

BECT D16 77446 C/44 = US 4287-306
Article for forming anaerobic atmosphere - for culture of anaerobic microorganisms, contg. hydrogen generator and catalyst for reaction with oxygen

BECTON DICKINSON CO (BREW) 02.04.79-US-026337

(01.09.81) *EP-17-314 C12m-01 + B01j-07 B01j-08/02

02.04.79 as 026337 (006JB)

An anaerobic atmos. for use in anaerobic microorganisms culture, comprises a sealed flexible package containing material for generating CO_2 and material for generating H_2 , and with its exterior coated with catalyst.

When the package is broken open and water added, the catalyst promotes reaction between external oxygen and the internal generated H_2 . Pref. the package has an external anaerobic indicator, and an external CO_2 indicator. No special jar is needed to house the package for use. (7pp)

TOXN D16 53690 C/31 = US 4287-345
Polyfunctional disulphide contg. 2 benzothiazolyl and 2-pyridyl - useful as crosslinking agents for thiol cpds. e.g. enzymes, hapten(s), antigens, receptors or carriers (NL 15.7.80)

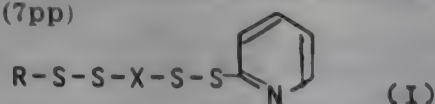
TOYO JOZO KK 05.04.79-JP-041737 (12.01.79-JP-003507)

A60 B04 E13 (01.09.81) *DE3000-879 C07d-213/70

11.01.80 as 111482 (974JB)

Novel polyfunctional disulphide cpds. are of formula (I). R is 2-benzothiazolyl or 2-pyridyl-N-oxide and X is a 2-10C spacer gp. opt. having OH substituents, amide linkage or ether linkage having an alkylene gp. directly bonded to each end.

receptors in enzyme immune assay, enzyme receptor assay and antigen formation. (7pp)



ULTI-★ D16 69819 D/38 ★WP 8102-394
Composting system for scrubbing gas effluent - utilises active composting biodegradable organic waste held under thermophilic bacteria-phase digestion conditions

ULTIMATE RESOURCES 20.02.80-US-122882

J01 (03.09.81) B01d-53/14

05.02.81 as U00168 (1044DJ) (E) US4230676 US2798800 US3579320 US4201663 US4252462 US4225381 US4161426 US3828525 US3855121 SU-407843 6.Jnl.Ref N(AU DK JP HU RO SU) E(AT CH DE FR GB LU NL SE)

Inorganic acid-forming constituents are removed from a contaminated gas stream by passing the gas stream through digesting wash which is maintained under thermophilic bacteria-phase digestion conditions. The biodegradable organic waste has a water content of 30-70 wt.% and a temp. of 30-70 deg.C.

The contacting period is adequate for removing the constituents from the gas stream. A product gas stream free of the constituents is vented from the waste.

Composting system for scrubbing gas effluvia suds as high S coal effluent. A compost product is produced which is useful as a surface treatment for strip mine soil reclamation or soil rejuvenation and a clean gas is produced which is free of inorganic and organic contaminants. The composting and scrubbing operations complement each other to reduce costs. The heat value from the contaminated gas stream can be used for temp. control of the composting material. (24pp)

AXEL/★ D16 69827 D/38 ★WP 8102-425
Eucaryotic cells co:transformed with DNA linked to promoter - useful for enhanced prodn. of proteinaceous materials

AXEL R 25.02.80-US-124601

B04 (03.09.81) C12n-05 C12n-15 C12p-21

23.02.81 as U00239 (1248RH) (E) 11Jnl.Ref N(AU BR DK FI JP NO) E(AT CH DE FR GB LU NL SE)

Insertion of foreign DNA I into a eucaryotic cell involves cotransforming the cell with the foreign DNA I to which an inducible promoter DNA III has been linked and with unlinked foreign DNA II that codes for a selectable phenotype not expressed by the cell. The cotransformation is carried out in a suitable medium, with selective conditions permitting survival or identification of eucaryotic cells that have acquired the selectable phenotype.

Prodn. of proteinaceous material involves cotransforming a eucaryotic cell with foreign DNA I coding for the material to which an inducible promoter DNA III sequence has been linked as described above, then maintaining the cotransformed cell under suitable conditions, including presence of an agent capable of inducing the promoter DNA III so that DNA I can be repeatedly transcribed to form complementary mRNAs; which are translated to produce the proteinaceous material and this is recovered.

By using the techniques, eucaryotic cells can be produced for use in the prodn. of proteinaceous materials such as interferon, insulin, growth hormone, clotting factor, viral antigen or antibody or enzyme etc. By using other claimed procedures genetically defective erythrocyte cells associated with sickle cell anaemia can be treated, foreign DNA I coding for normal globulin and DNA II coding for drug resistance being used. (104pp)

AXEL/★ D16 69828 D/38 ★WP 8102-426
Insertion of DNA into eucaryotic cells by co:transformation etc. - useful in enhanced prodn. of proteinaceous materials

AXEL R 25.02.80-US-124513

B04 (03.09.81) C12n-05 C12n-15 C12p-21

23.02.81 as U00240 (1248AT) (E) US3800035 GB2010847 10Jnl.Ref N(AU BR DK FI JP NO) E(AT CH DE FR GB LU NL SE)

Insertion of foreign DNA (I) into eucaryotic cell is effected by cotransforming the cell with foreign DNA I and with unlinked foreign DNA (II) that codes for a selective phenotype not expressed by the eucaryotic cell. The cotransformation is carried out in a suitable medium with selective conditions permitting survival or identification of cells that have acquired the selectable phenotype.

Insertion of purified foreign DNA (I) coding for proteinaceous material not associated with a selectable phenotype into a eucaryotic cell is effected by cotransforming the cell with the foreign DNA (I) and with unlinked foreign DNA (II) coding for proteinaceous material associated with a selectable phenotype. The eucaryotic cell with foreign DNA (I) and prodn. of proteinaceous material by cotransforming eucaryotic cell are also claimed. Methods for generation of multiplicity of foreign DNA (I) molecules and recovery of a desired eucaryotic gene are also given.

Using these techniques, eucaryotic cells can be produced for use in the prodn. of desired proteinaceous and other materials e.g. interferon, insulin, growth hormones, clotting factors, viral antigens, antibodies, enzymes etc. in amts. not obtd. with conventional technology. (111pp)

CSIR★ D16 69829 D/38 ★WP 8102-427
Aerobic fermentation of bile - for selective microbial degradation to steroidal and seco-steroidal prods.

COMMONWEALTH SCIENT ORG(PARK/) 22.02.80-AU-002498

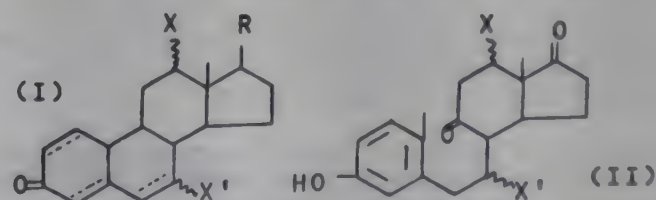
B01 (B05) (03.09.81) C07c-49/74 C07j-01 C12j-09 C12j-13 C12p-07/38 C12p-33

13.02.81 as AU0017 (1248NS) (E) AU7945981 US3023229 US2960513 US4101378 FR2408621 EP--14991 EP--8214 8.Jnl.Ref N(AU JP US) E(DE FR GB NL)

Fermentation of bile includes the step of cultivating an aerobic micro-organism that can selectively degrade bile acids or their conjugates in bile, in a nutrient medium under aerobic conditions. From the medium a steroid of formula (I) of a secosteroid of formula (II) is isolatable. In the formulae, X and X' are H, OH or oxo; the broken bonds are optional double bonds; and R is oxo, OH or CHMe-COOH.

Cpds. (I) and (II) are produced economically and at a fast rate, so that contamination with other prods. is minimised. The prods. (I) and (II) are intermediates in the prepn. of therapeutic agents.

The micro-organism is pref. a Rhodococcus, Pseudomonas or Nocardia strain, esp. strains ATCC 31754 or 31753. Cattle or sheep bile is pref. used. Cultivation is at 25-30 deg. C. The prods. are recovered by centrifuging, then the liquor is acidified and extrd. with water-immiscible organic solvent. The crude prod. is purified by recrystn. or chromatographically. In a pref. procedure the liquor left after centrifugation is percolated through a column of porous polymer beads, then the column is washed, and eluted with mixts. of water, MeOH and water-immiscible solvent, and the prods. are subsequently crystallised. (24pp)



See Also

D13 EP 35013	D13 EP--35062	D13 EP--35125
D13 SU 754856	D13 SU 791366	D14 DE 3008132
D15 DE 3007064	D15 SU 791640	D17 BE 888672
D17 WP 8102428	D21 US 4287173	D25 US 4287082

D17: SUGAR; STARCH

CORP★ D17 67980 D/38 ★BE -888-672
Prepn. of fructose polymers, glucose and fructose from saccharose - by simultaneous use of fructosyl transferase and glucose isomerase

CPC INTERNATIONAL INC 03.06.80-US-156154

E13 (D16) (28.08.81) C12p C13k

05.05.81 as 888672 (591DJ)

The process comprises treating a saccharose contg. substrate to the simultaneous action of effective amts. of fructosyl-

transferase and glucose-isomerase enzymatic preps. The prod. above is hydrolysed to hydrolyse the polymer and form a syrup with a high fructose content.

The first prod. is used as a special glucide for sweetening and other applications. In the second prod., a high fructose content desirable because it is more sugary. The process is an improvement in G.B. 2000144 in which the enzyme treatment is in two stages. The above enables a high content of fructose polymers and therefore a higher fructose content in the

hydrolysed prod. e.g. from 60 going up to 75%. (25pp)

ENIE- ★ D17 D/38 ★ BR 8100-989
 Sepn. of glucose and fructose
 ENIENTE NAZ IDROCA 22.02.80-IT-020105
 (25.08.81) C13k-01 C13k-03 C13k-11

JOZE/ ★ D17 D/38 ★ CS 8004-611
 Vertical crystalliser for homogeneous mixts. - partic. sugar
 industry mixtures
 JOZEFY V 27.06.80-CS-004611
 (30.06.81) C13f-01/02

JARO/ ★ D17 D/38 ★ CS 8004-839
 Sludge mixing and removal system for concentrating filter
 JAROMERSKY L 07.07.80-CS-004839
 (30.06.81) C13f-01/04

SYND- D17 57382 C/33 = EP G014-136
 Plant to purify sugar refinery effluent and produce methane -
 completely immerses gas collection canopy to reduce fire and
 explosion hazards

SYND NAT FAB SUCRE 24.01.79-FR-001775
 (D15) (09.09.81) *EP--14-136 C02f-03/28 + C02f-11/04
 18.01.80 as 400078 (922DJ) (F) GB-837561 US4060175 E(AT BE CH
 DE GB IT LU NL SE)

In an anaerobic settling fermenter for purifying waste water,
 esp. from the sugar industry, and recovering the combustible
 fermentation gases (mainly methane) and comprising a basin
 dug out of the ground (having a sealing skin) in the shape of a
 truncated pyramid with a flat bottom, a rotary agitator with a
 vertical shaft consisting of an impeller in the vicinity of the
 bottom, a flexible cover stretched out in the central region of the
 basin and anchored at its periphery halfway up the walls so as to
 form a pocket to collect the fermentation gases and a pipe to
 discharge the gases at a high point and a waste water feed pipe
 which passes a heating means and which opens in the presence of
 the impeller, a metallic collecting bell member having immersed
 edge portions through which the shaft of the agitator passes
 axially is connected via its edge portions to a central opening in
 the cover which latter is stretched between the central opening
 and the peripheral anchorage points.

By arranging for only the bell to project (everything else being
 immersed), damage to the canopy and the consequent risk of
 explosion is reduced. (--pp)

SZES- ★ D17 D/38 ★ HU T020-623
 Processing starch for direct pharmaceutical use - by purifying,
 oxidising and dehydrating under sterile conditions
 SZESZIPARI KUTATO 23.08.79-HU-SE1952
 B04 (B07) (28.08.81) C13l-01

OPLU/ ★ D18 D/38 ★ CS 8006-814
 Leather face cleaning and steaming
 OPLUSTIL V 09.10.80-CS-006814
 (30.06.81) C14b-17/14

PHIM D18 21215 D/12 = EP --35-052
 Denitration of aq. tobacco extracts - with min. loss of other
 solubles, by electrodialysis against brine
 PHILIP MORRIS INC 05.03.80-US-127479
 + P15 (09.09.81) *US4253-929 + A24b-15/24
 05.09.80 as 105313 (KB) (E) US4131117 US4131118 US3847164
 US3616801 E(BE CH DE FR GB IT LI NL)
 A method for denitrating aq tobacco extracts comprises
 circulating an acidic tobacco extract having a solids content of
 about 5-50% and a resistivity of about 8-50 ohm-cm through the
 alternate cells of an electrodialysis unit having an anion
 permeable membrane toward the anode spaced no more than
 about 0.04 inches from an anion impermeable membrane toward
 the cathode.

The membranes have a tightness sufficient to minimise
 transfer of nonelectrolyte substances. Brine is circulated
 through the remaining cells and about 0.5 to 2.0 volts/cell pair is
 applied to the unit. (4pp)

UNVO ★ D17 69636 D/38 ★ US 4287-001
 Reducing disintegration of oxide bound aluminosilicate
 adsorbent - by esterification with alcohol, esp. for selective sepn.
 of sugars from aq. soln.

UOP INC 25.02.80-US-124397
 J01 (01.09.81) C13k-03 C13k-11
 25.02.80 as 124397 (1251HM)

Process for selectively separating one component from an aq.
 soln. uses as adsorbent a crystalline aluminosilicate (A)
 formulated with an inorganic oxide binder (B). The dissolution of
 (A) or (B) in the soln. (and hence undesirable disintegration) is
 now reduced by treating the adsorbent before use with an alcohol,
 so that esterification of (A) or (B) occurs.

Pref. (B) is amorphous silica-alumina or alumina, and (A) is an
 X or Y type zeolite, opt. with alkali or alkaline earth cations at
 exchangeable sites. The soln. being treated pref. has pH 6.5-7.5
 and esp. contains glucose and fructose. The pref. desorbent for
 recovery of the adsorbed component is water. (9pp)

BEIT/ ★ D17 69830 D/38 ★ WP 8102-428
 Continuous acid hydrolysis of cellulosic vegetable material - for
 prodn. of sugar for fermentation to alcohol

REITTER F J 23.02.80-DE-006887
 (D16) (03.09.81) C13k-01/02

21.02.81 as D00036 (513HM) (G) WP7900119 DE2324022 US4025356
 US1677406 N(AU BR JP SU US)

Process is claimed for continuous hydrolysis of pentosan-contg.
 hemicelluloses, cellulose and similar cpds. in vegetable
 biomaterial into sugars. The comminuted raw material is treated
 in a first stage in the presence of dil. acid under conditions of
 temp. and press. such that the hemicelluloses and only partly the
 cellulose are hydrolysed during a first period to pentoses and
 partially hexoses. The reaction mixt. is then suddenly released
 and the hydrolysate is sepd. from the biomaterial. The cellulose
 in the biomaterial is then hydrolysed to hexoses in a second stage
 with dil. mineral acid under more rigorous conditions of temp.
 and press., after which the press. is again suddenly released and
 the residual biomaterial is sepd. from the hydrolysate.

The biomaterial is fed into the pressure reaction chambers by
 means of a screw feed which acts as a pressure seal and in which
 air and excess moisture in the biomaterial are largely removed.
 Hydrolysis is carried out in a continuous horizontal cooker in the
 vapour phase. The neutralised hydrolysate is recovered in
 several sepn. stages and further processed to recover the sugars.

Process can be used with a wide range of cellulosic raw
 materials, including voluminous materials such as annula plant
 residues, waste paper etc., which cannot be used in percolation
 type cookers. The sugars obtd. can be fermented to form
 alcohols, which are useful as a fuel additive. (44pp)

See Also

D15 GB 1598389 D16 SE8100741 D16 US 4287304

D18: SKINS; HIDES; LEATHER; TOBACCO

OPLU/ ★ D18 D/38 ★ CS 8006-814
 Leather face cleaning and steaming
 OPLUSTIL V 09.10.80-CS-006814
 (30.06.81) C14b-17/14

PHIM D18 21215 D/12 = EP --35-052
 Denitration of aq. tobacco extracts - with min. loss of other
 solubles, by electrodialysis against brine
 PHILIP MORRIS INC 05.03.80-US-127479
 + P15 (09.09.81) *US4253-929 + A24b-15/24
 05.09.80 as 105313 (KB) (E) US4131117 US4131118 US3847164
 US3616801 E(BE CH DE FR GB IT LI NL)
 A method for denitrating aq tobacco extracts comprises
 circulating an acidic tobacco extract having a solids content of
 about 5-50% and a resistivity of about 8-50 ohm-cm through the
 alternate cells of an electrodialysis unit having an anion
 permeable membrane toward the anode spaced no more than
 about 0.04 inches from an anion impermeable membrane toward
 the cathode.

The membranes have a tightness sufficient to minimise
 transfer of nonelectrolyte substances. Brine is circulated
 through the remaining cells and about 0.5 to 2.0 volts/cell pair is
 applied to the unit. (4pp)

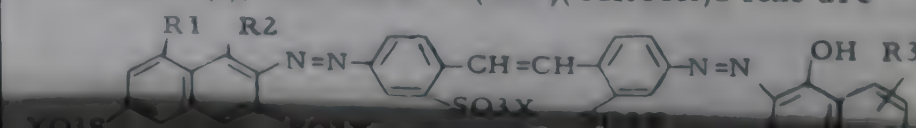
FARB D18 86220 D/37 = EP --35-152
 Highly soluble blue dis:azo dyes esp. for paper and leather -
 prepd. from di:amino:stilbene di:sulphonic acid and sulphonated
 naphthol coupler

BAYER AG 26.02.80-DE-007077
 E21 F09 (09.09.81) *DE3007-077 C09b-35/21 + C09b-67/44
 14.02.81 as 101052 (1480AS) (G) FR2216304 US4118182 US2489463
 E(CH DE FR GB LI)

Disazo dyes of formula (I) and their conc. aq. solns.
 (opt. contg. a water-miscible solvent) are new. (R1, R2
 and R3 are hydroxy or amino; X is Li, Na, K or
 NH(CH3)(C2H4OH)2, provided that at most one-third of
 the sulpho gps. have X as Li, Na or K; n is zero or 1).

Pref. cpds. have R1 hydroxy; R2 amino; and when n is
 0, R3 is 6- or 7-amino, or when n is 1, R3 and 5-amino.

(I) dye cellulosic material, esp. paper, and leather in
 blue shades. The conc. solns. are formulated to contain
 20-40 wt. % (I); where the HN(CH3)(C2H4OH)2 ions are



replaced by metal ions the dyes have poor solubility in water. (11pp)

BADI ★ D18 68217 D/38 ★EP --35-172
Dyeing fleece wool with min. dyeing or leather - using sulpho-phenyl-azo pyrimidine, cyano pyridine or carbamoyl-pyridine di:amine dyestuff

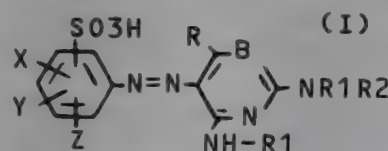
BASF AG 29.02.80-DE-007628

E21 F06 (09.09.81) C09b-29/42 D06p-01/02 D06p-03/30

19.02.81 as 101161 (016BZ) (G) No-Citns. E(CH DE FR GB IT LI)

In dyeing wool of fleeces or pelts, sulphonated monoazo dyestuffs (I) are used which, in the free acid form, have the formula (I), (in which B is =N-, =C(CN)- or =C(CONH2)-. R is H, Me, Et, NHR3 or Pr. R3 is H, Me, Et, n- or i-Pr, n- or i-Bu, methoxyethyl, ethoxyethyl, butoxyethyl, methoxypropyl or ethoxypropyl. R1 is opt. OH, 1-4C alkoxy, COOH, 1-8C alkoxy-carbonyl, 1-8C alkanoyloxy, CN, 1-8C alkanoylamino, cyclohexyl or phenyl-substd. 1-8C (oxa)alkyl, allyl, cycloalkyl, norbornyl, omega-pyrrolidino-2-6C-alkyl, phenyl-1-4C-alkyl, tolyl-1-4C-alkyl, 4-methyl-tetrahydropyran-3-yl-methyl, tetrahydropyran-4-yl-ethyl or 2-hydroxy-2-phenylethyl. One R1 gp. can also be H, phenyl, tolyl, methoxyphenyl, ethoxyphenyl or dimethylphenyl. R2 is H, Me, Et, hydroxyethyl or 2-4C alkoxyalkyl. R1 and R2 together with the N can be pyrrolidino, piperidino, morpholino, piperazino or N-methyl-, N-beta-hydroxyethyl- or N-acetyl-piperazino. X is H, Cl, Br nitro, CN, 1-8C alkylsulphonyl, (chloro)phenylsulphonyl, tolylsulphonyl, CF3, COOH, Me, Et, MeO, EtO, SO2NR1R2, arylsulphonate, (substd.) oxadiazolyl or a carboxylic ester gp. with 1-6C in the alcohol gp. Y is H, Cl, Br, Me or MeO. Z is H, Cl or Me).

(I) combines very well with commercial yellow, blue and red pelt dyestuffs and gives any depth of colour with min. dyeing of the leather. (33pp)



PHIM ★ D18 68266 D/38 ★EP --35-273
Selective denitration of aq. tobacco extract - without removing potassium, to reduce amt. of nitrogen oxide etc. formed during smoking

PHILIP MORRIS INC 05.03.80-US-127386

P15 (09.09.81) A24b-15/24

04.03.81 as 101525 (1251NS) (E) US4131117 US4131118 US3847164 US3616801 E(BE CH DE FR GB IT LI)

Tobacco is treated by first extracting with an aq. soln., then subjecting the extract (A) to selective removal of nitrate ions, without reducing the potassium ion content, by an ion-extraction technique. The treated extract is then recombined with the insoluble tobacco residue (B) remaining after extraction. Pref. ion-removal is by membrane electrodialysis (using a unit contg. alternating bipolar and anion-permeable membranes); electroregenerating ion-exchange; ion-exchange resins or by Donnan dialysis. Extraction is pref. with a denitrated extract contg. tobacco solubles, and pref. metal ions are neutralised before recombining with (B). Extraction is pref. at aq. soln.: tobacco wt. ratio 5-100:1 at 60-95 deg.C.

The treatment reduces the amt. of gaseous components (HCN, CO and partic. nitrogen oxides, esp. NO), formed when the tobacco is smoked. By removing nitrate but not potassium, a greater redn. in N oxides prodn. is achieved compared to removal of both ions simultaneously. (40pp)

UGIN D18 56780 A/32 = GB 1598-211
Water soluble poly:azo dyes for animal fibres esp. leather - giving dark brown dyeing fast to light, washing and dry cleaning

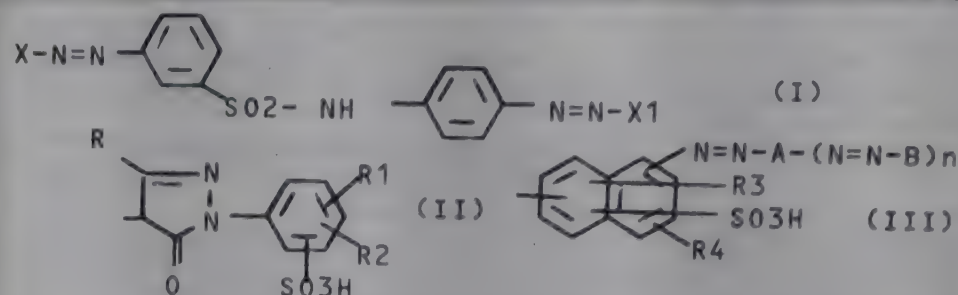
PROD CHIM UGINE KUHLMANN 04.02.77-FR-003178

E21 F06 (16.09.81) *BE-863-240 C09b-35/36

31.01.78 as 003738 (937JB)

Polyazo dyestuffs of formula (I) are novel. In the formula (I) X and X' are radicals of formula (II) and (III), wherein A is the residue of mono- or di-coupling components AH2 of the hydroxylated and/or animated benzene series opt. substd. by one or two Me gps. or sulphonic acid gp. or hydroxylated and/or aminated naphthalene series opt. substd. by sulphonic acid gp., B is residue of diazotisable prim. benzene amine. BNH2, n is 0 or 1, R is methyl or carboxylic acid gp., R1 and R2 are each H or Cl; R3 is hydroxy or H; R4 is sulphonic acid gp. or H; H substituents of the naphthalenic ring system may be attached to either ring.

The dyestuffs are used to dye silk and leathers deep brown tones esp. bronzes and red browns. The dyestuffs are very level fast to light, washing and dry cleaning with stability and fastness to acids. (14pp)



UGIN D18 56781 A/32 = GB 1598-212
Water soluble poly:azo dyes for animal fibre esp. leather - giving pale and medium brown dyeings, fast to light, washing and dry cleaning

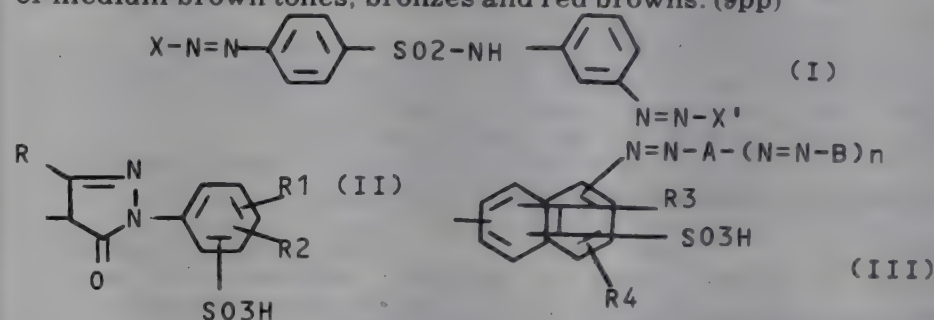
PROD CHIM UGINE KUHLMANN 04.02.77-FR-003177

E21 F06 (16.09.81) *BE-863-241 C09b-35/36

31.01.78 as 003739 (937JB)

Polyazo dyestuffs of formula (I) are novel. In the formula X and X' are radicals of formula (II) and (III), where A is the residue of mono or di coupling cpd. AH2 of hydroxylated and/or aminated benzene series or hydroxylated and/or animated naphthalene series opt. substd. by sulphonic acid gp., B the residue of diazotisable prim. benzene amine BNH2, n is 0 or 1. R is methyl or carboxylic acid gp.; R1 and R2 are each H or Cl; R3 is hydroxy or H; R4 is sulphonic acid gp. or H, the substituents of naphthalenic ring may be attached to either ring.

The dyestuffs are used for dyeing silk and leather which are fast to light, washing and dry cleaning giving full shades in light or medium brown tones, bronzes and red browns. (9pp)



BUDB- ★ D18 D/38 ★HU T020-624
Coating pigskin with reactive binder - esp. emulsion of polyacrylate copolymer crosslinked with glutaraldehyde in aq. medium

BUDAPESTI BORIPARI 25.08.76-HU-BU0814

A97 (28.08.81) C14c-11

NISB D18 16635 A/09 = J8 1036-186
5-Amino-3-hydroxy-valeric acid and its derivs. - useful for improving taste and aroma of tobacco

JAPAN TOBACCO & SALT PUB 02.07.76-JP-077902

E17 P15 (22.08.81) *J53005-113 A24b-03/12 C07c-101/30

02.07.76 as 077902 (75JB)

5-Amino-3-hydroxy-valeric acid of formula H2N-CH2-CH2-CHOH-CH2-COOR (I) (where R is H or a lower alkyl such as (m)ethyl, ethyl, propyl, etc. and its lower alkyl ester, improve the aroma and taste of tobacco.

The acid is obtd. has colourless crystals, has m.pt. 151-152 deg.C, compsn. C5H11NO3, mass spectrum:m/el33(M+), 115, 97, 69, 56, 43; IR spectrum: (Cm power (-1)), 3398, 3202, 1645, 1600, 1535, 1400, 1060, (delta), 1.8 (2H, m), 2.4 (2H, d), 3.1 (2H, t), 4.1 (1H, m).

In an example, 10 kg. of dry tobacco leaves is extracted twice with 10.1 of a 70% methanol (v/v). The methanol layers are combined and subjected to distn. at 40 deg.C to remove methanol. To the resulting aqs. residue (21) is added 21 of conc. HCl, followed by reflux. The HCl is removed by distn. under reduced pressure, and the resulting aq. residue (21.) is subjected to adsorption on cationic exchange resin Dowex 50W x 4 (10 l) and to substd. chromatography, followed by elution with 0.2N-ammonia. Further purificn. gave pure prod. (J53005113) (3pp)

BRTA D18 59824 V/34 = NL -167-745
Cigarette filter tip with incompatible additive - which selectively eliminates harmful fumes without discolouring or damaging the filter material

BRIT AMER TOBACCO LTD 16.05.73-US-360839

A97 P15 (17.08.81) *BE-808-961 D21h-05/16

21.12.73 as 017538 (160PW)

Tobacco smoke filter comprises an element enclosed by a wrapping coated on its side towards the element. The coating contains a compound effecting a selective absorption of and/or reaction with the ingredients of the smoke, and typically extracting hydrocyanide from it. (5pp)

GALL- D18 27299 A/15 = US 4286-604
Tobacco substitute prepn. by viscose fibre pyrolysis - with addn. of catalyst, stimulant-carrier, glow additive, smoke former and nicotine deriv. (BE 5.4.78)

GALLAHER LTD 05.10.76-GB-041273 (05.10.76-GB-041271)
A97 P15 (A11) (01.09.81) *DE2744-728 A24b-15/18 + A24d-01/18
03.10.77 as 838712 (+ 5.10.76-GB-041272) (945MR)

Smoking prod. is produced by controlled pyrolysis of a viscose fibre mass until the organic residue contains at least 90 wt.% C and loading of the obtd. fibrous mass with the ingredients for smoking. A pyrolysis catalyst, a stimulant additive carrier and/or a combustion modifying agent (precursor) is added to the bulk viscose mass from which the starting fibres are spun so as to become homogeneously dispersed throughout the individual fibres.

Pref. the starting fibres having round cross section, denier 5-20 and length 20-100 mm., and they are pyrolysed to C content at least 95 wt.%, O content 1-4 wt.% and H content less than 1 wt.%. The fibres are easy to handle. (9pp)

IMPT D18 13325 C/08 = US 4286-605
Cigar cover leaf prodn. - by cutting smokable sheet material printed with thickened ink to simulate natural tobacco leaf marking

IMPERIAL GROUP LTD 27.07.78-GB-031391
A97 G02 P15 (01.09.81) *DE2927-893 A24b-03/14 A24d-01/18
06.07.79 as 055143 (945MR)

Smokable sheet material web is treated to simulate natural tobacco leaf before cutting into cigar wrapper blanks. Method comprises printing the web with an ink pattern simulating markings of natural tobacco leaf.

The ink has a thickened compsn. which dries to form a ribbed pattern. It comprises filler, non-water-based solvent, adhesive, plasticiser and ground tobacco dust to produce a desired colouration. The dust may be ground cigar offal.

The dried ink pattern resists flattening and is not removed by subsequent mfg. steps including wetting. (6pp)

PHIM ★ D18 69570 D/38 ★ US 4286-606
Prepn. of flavour prods. for smoking tobaccos - by heating reducing sugar, ammonia, and opt. unsatd. carboxylic acid

PHILIP MORRIS INC 18.06.79-US-049361
E19 P15 (01.09.81) A24b-15/30 C08b-03 C08b-37
18.06.79 as 049361 (478DJ)

A flavour prod. is prepd. by reaction of a reducing sugar (I), NH_4OH , and an opt. unsatd. 6-26C carboxylic acid (II) for 0.5-3 hr. at 70-150 deg.C.

(I) is pref. glucose, mannose, galactose, maltose, rhamnose or mixts., esp. fructose. (II) is suitably caproic, pelargonic, lauric, tetradecenoic, myristic, palmitic, stearic, or ricinoleic acids; corn, rape seed, tung, tallow, peanut, coconut, safflower or olive oils or block chocolate; pref. oleic, linoleic, or linolenic acids or mixts. Reaction is pref. for 0.5-1.5 hr. with mol. ratio NH_4OH : (I) is 1.2-3:1, esp. 1.7:1; and with mol. ratio (I):(II) = 1:0.01-0.04 esp. 1:0.024. Large scale reactions are pref. in presence of an emulsifier (e.g. 'Complem X-50' (RTM)). Amt. of flavour prod.

used is 0.01-5% by wt. of total tobacco blend wt.

The flavour prod. added to tobacco provides increased body and strength to tobacco smoke (esp. the smoke of low delivery cigarettes) without any accompanying harshness. (6pp)

DIMI/ ★ D18 69751 D/38 ★ US 4287-252
Low cost reconstituted leather product - obtd. by mixing polarised, pulverised leather particle aggregates with a resin binder

DIMITERS 05.09.80-US-184656 (27.06.78-US-919474)
A94 P73 (A17) (01.09.81) B32b-03/26 B32b-05/18 B32b-09/02
C081-89/06

05.09.80 as 184656 (+ 28.9.79-US-980049) (558WB)

A reconstituted leather prod. comprises pulverised leather particles polarised to form aggregates or gps. of particles, the aggregates being at least partially encapsulated and bonded one to the others by a resin binder to form a sheet material having buffed surfaces.

The use of ethylene-vinyl acetate copolymer binder, e.g. contg. 21-29% vinyl acetate and having melt index 10.8-20g/10 min. and density 0.941-0.949 g/cm³. is claimed.

The product has a structure closely simulating natural leather in feel, odour and appearance. It is flexible over a wide temp. range, without the use of a plasticiser and has high impact strength even at very low temps., high resistance to flex or environmental stress cracking, good thermal stability. It is prepd. at relatively low cost. (3pp)

PHIM D18 66393 D/37 = WP 8102-379
Treating tobacco by extn., removing potassium nitrate - then recombining extract and residue after adding potassium salt

PHILIP MORRIS INC 21.02.80-US-123247
E34 P15 (03.09.81) *EP--34-922 A24b-15/24
18.02.81 as U00198 (1251WB) (E) US3616801 US3847164 US4131118 N(BR DK JP SU)

Tobacco is treated by first forming an aq extract, then removing KN03 from the extract, and adding a K salt (other than the nitrate) to the fibrous tobacco residue (A) or to the denitrated extract (B) before these two are recombined. Esp enough K salt is added to restore the K level of the tobacco before extraction.

KN03 is removed from the extract (a) by membrane electrodialysis (opt preceded by crystallisation) or (b) on a mixed bed of anion- cation exchange resin. The tobacco is pref extracted with a denitrated aq soln of tobacco solubles and pref K salts added are the citrate, acetate, phosphate, (bi)carbonate or malate.

The treated tobacco produces less nitrogen oxides (esp NO), HCN and CO when burned, compared with prods from which KNO_3 has been removed but the K content not restored. (24pp)

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

STAU ★ D21 68009 D/38 ★ CA 1105-389
Fluoride dentrifice which is non corrosive to aluminium tubes - contg. insoluble alkali metal metaphosphate or calcium pyrophosphate(s), zinc oxide and acidic pH adjuster

STAUFFER CHEMICAL CO 26.10.76-US-733734 (22.12.75-US-643444)
B06 E37 (21.07.81) A61k-07/18
24.11.76 as 266514 (513NS)

Toothpaste for packing in unlined aluminium tubes and contg. at least one of an insoluble alkali metal metaphosphate and calcium pyrophosphate together with zinc oxide and an acidic pH adjuster chosen from weak organic acids, weak inorganic acids and their salts, which form relatively insoluble aluminium salts. The amts. of ZnO and pH adjuster used are effective to prevent corrosion of the tube, to maintain the pH of the toothpaste at 5.5-6.8 and to give a smooth texture to the formulation. The ZnO is pref. used in an amt. of 0.01-0.05 wt.-% and the pH adjuster at 0.01-0.05 wt.-%.

Suitable pH adjusters are e.g. phosphoric acid and its salts, boric acid, oxalic acid and tartaric acid.

The toothpastes have the required texture and are non-corrosive w.r.t. unlined aluminium tubes. (20pp)

WEIS/ ★ D21 68020 D/38 ★ DD -149-019
Anticaries dentrifice preparations in paste form - contg. calcium pyrophosphate as polishing agent and water-insoluble organic fluorine cpd.

WEISSFLOG G 11.02.80-DD-218971
B05 E11 (E33) (24.06.81) A61k-07/18
11.02.80 as 218971 (280HM)

New mouth- and dental-care preparation in paste form contain calcium-contg. polishing agents, but at least 90% of the fluorine content still has significant caries prophylactic activity after 12 months' storage. The preparations contain a water-insoluble organic fluorine cpd., and contain calcium metaphosphate.

(esp. 18-20°C) n-alkylamine hexafluorosilicates. The amine component reacts with phosphoric acid and water-soluble organic acids to form a water-soluble salt and fluorine ions are released.

Calcium pyrophosphate and water-insoluble organic fluorine cpds. do not intract, so that carries-prophylactic activity is retained even after prolonged storage. (9pp)

HERA-★ D21 68152 D/38 ★DE 3008-605
Ceramic-faced silver alloy dental prostheses prodn. - by applying dental ceramic on alloy, drying and firing in reducing atmos.
HERAEUS EDELMETALLE 06.03.80-DE-008605
L02 P32 (10.09.81) A61c-05/10 A61c-13

06.03.80 as 008605 (200KB)

In producing dental prosthesis parts by applying dental ceramic compsns on Ag-contg precious metal alloys, drying and firing, the firing step takes place in a reducing atmos.

The undesired discolouration of the ceramic-faced Ag alloys is prevented. Light, natural tooth-coloured crowns and bridges can be obtd.

The reducing atmos contains or consists esp of CO and is pref generated from air-O₂ and C in the combustion chamber of the firing furnace. (6pp)

PALN/★ D21 D/38 ★DK 7904-897
Cosmetic product
PALNUM N 19.11.79-DK-004897
(24.08.81) A61k-07

CART/★ D21 68175 D/38 ★EP --35-040
Removal of plaque from teeth - using liquid spray with entrained pellets of soluble material

CARTER A H 26.02.80-EP-100956
P32 (09.09.81) A61c-17/02 A61k-06/02

26.02.80 as 100956 (295DJ) (E) DE2740033 E(AT BE CH DE FR GB IT NL SE)

Plaque is removed from teeth by directing a jet of liquid with entrained pellets against them. The pellets are formed of a material of kinetic energy when striking the teeth to remove plaque. The material of the pellets is soluble in the liquid.

Pref. the pellets are formed of halite and have a size of 0.010 to 0.030 inches.

Should the pellets become lodged under the gum line, they will shortly dissolve and thus prevent the formation of an abscess. (14pp)

BADI D21 64318 D/36 = EP --35-142
Micronised crosslinked, insoluble PVP as suspension agent - esp. used for pharmaceutical or cosmetic preparations

BASF AG 22.02.80-DE-006635
A96 B04 (A14 B07) (09.09.81) *DE3006-635 + A61k-09/10
11.02.81 as 100956 (952AT) (G) No-Citns. E(CH DE FR GB IT LI)

The use of micronised, crosslinked, insoluble polyvinyl pyrrolidone (I) to prepare stable suspensions is claimed. (I) is used for pharmaceutical and cosmetic preparations. The suspensions have a suspension quotient (sediment vol:total vol) of greater than 0.9 after 24 hrs, exact dosage can be prepared after 24 hrs. and suspensions can be easily resuspended by shaking. (I) is pref. used in an amt. of 1-30 wt.%. (8pp)

COMB-★ D21 68299 D/38 ★EP --35-364
Aq. compsn. for darkening keratin material - esp. human hair, contains thiosulphate, bismuth complex, amine and humectant

COMBE INC 28.02.80-GB-006844
E19 (E37) (09.09.81) A61k-07/13 D06p-03/08

25.02.81 as 300786 (1251KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Aq. compsn. for darkening keratinous material comprises a mixt. of (a) thiosulphuric acid salt; (b) a Bi complex of an aminopolyacetic acid; (c) a water-soluble amine and (d) a di- or poly-hydroxy humectant. Pref. it contains (wt.%) 0.2-5(1-3)% thiosulphate ion; 0.1-5(0.1-1.5)% bismuth (as carbonate); enough (c) to maintain pH 8-11, and 5-70% (d), esp. 20-70% propylene glycol or 5-30% glycerol. Specifically (c) is mono-, di- or tri-ethanolamine; the complexing agent in (b) is esp. EDTA, and (a) is a soln. of an amine, Na, K or ammonium thiosulphate.

The compsn. is esp. applied to human hair, but can also be used on wool and fur. The solns. are stable and the thiosulphate greatly enhances the darkening effect of (b). (14pp)

CARS-★ D21 68352 D/38 ★FR 2475-393
Hair setting process using compsn. contg. guanidine hydroxide - prepd. from guanidine salt and ion exchange resin hydroxide

CARSON PRODCO 11.02.80-US-120091 (08.02.80-US-119836)
E19 (14.08.81) A61k-07/11

05.02.81 as 002233 (597BZ)

The process comprises contacting the hair in the desired

arrangement with an aq. compsn. contg. a prod. prepd. by mixing in aq. medium more than 0.25 mole of at least one soluble guanidine salt and an effective amt. of at least one ion exchange resin in particle and quaternary ammonium hydroxide form. The resin is chosen to have an affinity for the guanidine salt anion which is at least equal to the affinity of the resin for the hydroxide ion. After a sufficient contact, the compsn. is removed. In another embodiment the compsn. comprises guanidine hydroxide prepd. as above with at least 1 min. reaction followed by sepn. of the ion exchange resin from the soln. A compsn. for the above comprises guanidine hydroxide and at least one quaternary ammonium ion exchange resin to which is linked, at least in stoichiometric amt. based on the hydroxide, an anion as above.

The process is used to frizz, relax or permanent wave the hair. The process enables in situ prepn. of guanidine hydroxide which is relatively unstable forming the carbonate in air; it also avoids disagreeable odours. (31pp)

HUBE D21 67037 A/38 = GB 1598-233
Abrasive silica compsn. for dentifrice paste - contains amorphous silica pptd. by acidulation of a soln. of alkaline earth metal silicate in soft water

HUBER J M CORP 20.12.77-US-862384
E33 (16.09.81) *BE-864-872 A61k-07/18 C01b-33/19

14.03.78 as 009954 (924LB)

Abrasive compsn. comprises a pptd. amorphous SiO₂ prepd. from a soln. consisting of water and an alkali metal silicate by acidulation. The SiO₂ is reacted with a salt oxide or hydroxide of an alkaline earth metal such that the salt is present in an amt. of 10-300 ppm of alkaline earth metal.

The SiO₂ obtd. exhibits a radioactive Dentin Abrasion value of at least 40, a pack density of 0.24-0.55 g/ml, an oil absorption of 70-95 ccs/100g, a BET surface area of 100-250 sq.m/g, 1% loss on ignition of 4-6% and an ave. particle size of 5-15 microns. The abrasive has a fluoride compatibility of at least 90%. Pref. alkaline earth metal is Ca, Sr or Mg.

The dentifrice abrasive is esp. suitable for therapeutic toothpaste compsns. contg. both soluble fluoride salts and soluble phosphate salts. (20pp)

LIOY★ D21 68663 D/38 ★J5 6095-937
Non-aq. pasty compsn. - prepd. from hydroxyethyl cellulose and glycol; used for dentifrice

LION DENTIFRICE KK 28.12.79-JP-172340
A96 B05 (A11 B07) (03.08.81) C08I-01/28

28.12.79 as 172340 (136BZ)

Non-aq. pasty compsn. prepd. by dissolving (1) hydroxyethyl cellulose having an ethylene oxide-addition mole number of above 2.8 in (3) one or more polyvalent alcohols selected from glycerine, ethylene glycol, diethylene glycol and propylene glycol. The upper limit of the ethylene oxide-addition mole number of (1) is about 5. The amt. of (1) used is 0.8-10 wt.% of compsn.

According to the application of the pasty compsn., other hydrophilic and lipophilic components may be added to the compsn. including abrasive (e.g. calcium carbonate, anhydrous silicic acid for tooth paste), activator (e.g. sodium laurylsulfate), sweetening agent.

(1) is dissolved in (2) which is non-aq. at room temp. and tackifys (2). Then, the mfg. process is simplified. The pasty compsn. is used for mfr. of tooth paste, ointment, a medicine for external use. (5pp)

LIOY★ D21 68696 D/38 ★J5 6095-993
Creamy detergent compsn. - comprising alpha-olefin sulphonic acid anionic detergent, polyoxyalkylene cpd. and an ester

LION CORP 21.11.79-JP-151409
A96 E17 (03.08.81) C11d-01/14 C11d-03/20

21.11.79 as 151409 (126KB)

Compsn. contains (a) 20-40wt.% anionic surfactant consisting of a salt of alpha-olefin sulphonic acid, (b) 3-20wt.% polyoxyalkylene cpd. of formula: RO(CH₂X.CH₂O)_nH (I) (where X is H or CH₃; n is an integer of 1-20; R is 12-22C linear satd. alkyl), and (c) 2-10wt.% ester which is solid at ordinary temp. Detergent compsn. has a viscosity varied by the change of the temp.

(a) consists of at least 50(80-100)wt.% alpha-olefin sulphonic acid salt and less than 50(0-20)wt.% anionic surfactant other than (a). The content of the anionic surfactant in the detergent is 20-40(25-35)wt.%. Specifically it is a water-soluble Na, K or Mg salt of an organic sulphonic acid obtd. by the sulphonation of 13-18 C linear alpha-olefin. The sulphonated prod. is then hydrolysed. (7pp)

KAOS ★ D21 68697 D/38 ★ J5 6095-994
Shampoo compsn. - contg. anionic phosphoric ester type surfactant and cationic polymer

KAOSOAP KK 28.12.79-JP-173440

A96 E11 (03.08.81) C11d-01/34 C11d-03/37

28.12.79 as 173440 (128DJ)

A shampoo compsn. is obtd. by adding (a) 0.1-2.5wt.% anionic phosphoric ester type surfactant based on the amt. of the shampoo compsn. of formula

A-M-O-P(O)(OX)(OB) (I)

(where A is 8-18C (unsatd.) hydrocarbon residue or an aliphatic monoamide residue; M is a residue of formula $-(CH_2-CHR-O)-m$ (where R is H or CH_3 gp.; m is 0-8; each oxyalkylene residue can be same or different to each other); B is a residue of formula A-M-and/or X, or where X is H, alkali metal, or (hydroxy)alkyl subst. ammonium, and (b) 0.05-2.5wt.% cationic polymer based on the amt. of shampoo compsn.

The base material is pref. selected from a 10-14C alkyl sulphate, 8-20C alkyl ethoxysulphate added to 0.5-8 moles in ethylene oxide, an aliphatic mono- or di-ethanolamide, amphoteric surfactant such as alkylamine oxides, alkyl betaines, or 10-14C imidazoline cpds. The cationic polymer is pref. selected from (i) copolymers of quaternised vinyl pyrrolidone with ethyl methacrylate, (ii) copolymers of adipic acid with dimethylaminohydroxy propylenediamine, (iii) poly(N,N-dimethyl-3,5-methylene piperidinium chloride), (iv) copolymers of N,N-dimethyl-3,5-methylene piperidinium chloride with acrylamide, (v) copolymers of acrylamide with beta-methalloxyloxy trimethyl ammonium, (vi) quaternised guar gum, (vii) polyethyleneimine, (viii) cationised cellulose, and (ix) condensates of polyamine with polyglycol.

Shampoo compsn. facilitates brushing and prevents generation of static electricity. Split ends are prevented. (7pp)

INOZ ★ D21 68708 D/38 ★ J5 6096-039
Silver-tin based dental amalgam - contains rare earth metal and has good corrosion and wear resistance

INOUE JAPAX RES INC 29.12.79-JP-172972

M26 (03.08.81) A61k-06/04 C22c-05/06

29.12.79 as 172972 (53DH)

Ag-Sn based dental amalgam includes a rare earth metal in an amt. 1-10 pref. 1-7.3%. This improves a conventional Ag-Sn dental amalgam to be excellent in oral corrosion resistance, wear resistance and durability, by adding the rare earth metal. The rare earth metal e.g. La is of high surface activity.

The surface of the alloy mixed with the mercury is formed with a corrosion resistant film to promote the amalgamation, while the La remaining unreacted inside of the alloy activated the amalgamation further to form rapidly a hardened layer for increasing strength and corrosion resistance of the alloy and imparting a suitable swelling performance to the amalgam. Mixing ratio of the mercury to the alloy may be reduced to 1:1, with rapid mixing and hardening. (3pp)

EART- ★ D21 68868 D/38 ★ J5 6097-205
Insect repellent effective against e.g. ants and slugs - contains e.g. 2-phenoxyethylthiocyanate

EARTH SEIYAKU KK 29.12.79-JP-173599

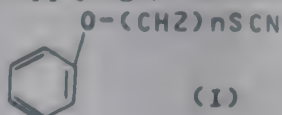
B05 C03 E14 (D22) (05.08.81) A01n-47/48

29.12.79 as 173599 (108AT)

Insect repellent contains a cpd. of formula (I), where n is 2-7.

Examples of (I) are 2-phenoxyethylthiocyanate, 3-phenoxypropylthiocyanate, 4-phenoxybutylthiocyanate, 4-phenoxybutylthiocyanate, 6-phenoxyhexylthiocyanate, etc. While the active cpd. can be used directly, it is pref. used with a carrier. The liquid formulation can opt. contain film-forming agent, stabiliser, emulsifying agent, dispersing agent, spreader, wetting agent and propellant, and is used in the form of paint, adhesive, emulsion, dispersion, lotion, cream, aerosol etc. It is possible to use the active cpd. in combination with other repellent, effect-reinforcing agent, insecticides, antioxidants, fungicides, herbicides and fertilisers.

(I) repels harmful insects such as hygienically harmful insects, cereal harming insects, cloth harming insects, ants and slugs. It is possible to prevent contact with harmful insects and invasion of harmful insects, by applying (I) in kitchen, dining room etc. (9pp)



NIKK- ★ D21 68870 D/38 ★ J5 6097-208
Stable cosmetic cream having excellent texture - contains basic amino acid, higher fatty acid and polyhydric alcohol

NII KK 29.12.79-JP-171527

E17 (05.08.81) A61k-07

29.12.79 as 171527 (5RP)

The cosmetic contains basic amino acid, higher fatty acid and polyhydric alcohol.

The cosmetic cream can be prepd., e.g. by (a) mixing higher fatty acid in oily base such as bees wax, fluid paraffin, higher alcohol, etc., (b) heat-dissolving the mixture at ca. 80 deg.C, (c) dissolving polyhydric alcohol and basic amino acid in refined water at ca. 80 deg.C, (d) mixing thus obtd. oily phase and aq. phase with stirring for reacting basic amino acid and higher fatty acid, (e) cooling the mixt. and (f) combining perfume, antiseptic, etc. in thus obtd. cream. Polyhydric alcohol serves to promote the reaction and to stabilise the reaction prod. and usually it is used 5-40 w/w% based on cosmetic.

The salt formed from basic amino acid and higher fatty acid serves as the emulsifier and by combining polyhydric alcohol the stability of the emulsifier can be improved. The stable cosmetic gives low stimulation to skin and has excellent texture. Further the reaction between basic amino acid and higher fatty acid can be completed at ca. 80 deg.C in a short time and the cosmetic base is not deteriorated during the reaction. (3pp)

SHIS ★ D21 68871 D/38 ★ J5 6097-210
Cosmetic remover - comprising mono- and/or di-ester(s) of 23-28 C, do not cause skin or eye stimulation

SHISEIDO KK 28.12.79-JP-172896

E17 (05.08.81) A61k-07/02

28.12.79 as 172896 (5RH)

Cosmetic make-up remover contains 30-100 wt.% of 23-28C monoesters and/or 23-28C diesters.

Remover effectively removes make-up without causing stimulus to skin and to eye mucous membrane.

Pref. (di)esters having 23-28C (esp. 24-26C) are used and their constituents are selected from fatty acid, dibasic acid, alcohol and glycol. Though their constituents can be used regardless of the fact that they are saturated or unsaturated and linear or branched, practically (a) the monoester of satd. fatty acid and satd. aliphatic alcohol, (b) the diester of satd. dibasic acid and satd. aliphatic alcohol and (c) the diester of satd. fatty acid and satd. aliphatic glycol can be used. Examples are decyl myristate, 2-ethylhexyl palmitate, oleyl caprate, cetyl 2-ethylhexanate, ethyleneglycol dilaurate, neopentylglycol didecanoate, etc. (5pp)

HOHY- ★ D21 68872 D/38 ★ J5 6097-214
Hair colourant - prepd. by negatively charging granular colourant, used for electrostatically coating onto hair

HOHYU KK 07.01.80-JP-000375

(05.08.81) A61k-07/13

07.01.80 as 000375 (5RH)

Hair colourant is prepd. by charging the granular colouring substance which has granular size 0.1-10 microns and is non-toxic or only slightly toxic to man, electrically negatively and packaging it in an appts., from which the substance can be injected toward head. As the equipment electrostatic painting equipments including isoelectric-type, constant voltage-type and constant current-type, can be used and among them constant current-type electrostatic painting equipment having the hand gun controlled with non-needle electrode as spraying nozzle, can be used favourably.

Hair and colouring substance are electrically attracted and the colouring substance is uniformly adhered to hair without forming spots. Thus hair can be coloured beautifully with saving colouring substance.

Carbon-black, azo-type pigment, vat-type pigment, tar-type pigment, etc., of which use is permitted can be used and the pigment is used together with resin-type setting agent, perfume, etc. The electrostatic painting appts. can be also used for hair spraying by using hair spraying agent instead of colouring substance. (5pp)

NIHS ★ D21 68935 D/38 ★ J5 6097-532
Emulsifier used in medicines, cosmetics, foods and washing agents - contains polyhydric alcohol and hydrophilic sorbitol fatty acid ester and/or hydrophilic sorbitan fatty acid ester

NIPPON SURFACTANT KK 07.01.80-JP-000089

B05 E17 (B07 D13 D25) (06.08.81) A61k-07 B01f-17

07.01.80 as 000089 (51PW)

Emulsifier consists of (1) polyhydric alcohol and (2) hydrophilic sorbitol fatty acid ester and a hydrophilic sorbitan fatty acid ester. The amt. of the alcohol is 1/2-20 times by wt. that of the ester.

glycol, propylene glycol, polypropylene glycol, 1,3-butylene glycol, glyceric, polyglycerine, sorbitol, glucose or gluconic acid. An oily component, a powder, or a little water is added to the emulsifier agent to obtain a non-aq. emulsion used as medicines, cosmetics, foods or washing agents. In an example, 2 pts.wt. or sorbitol monostearate, 1 pt.wt. of propylene glycol monostearate, 5 pts.wt. of glycerine, 10 pts.wt. sorbitol, 30 pts.wt. mineral oil, and 52 pts.wt. ion-exchanged water were mixed to produce an oil in polyol type emulsion. (4pp)

GENE-★ D21 68558 D/38 ★ J5 6069-343
Cobalt based dental alloy - includes molybdenum, manganese, carbon, silicon, and/or aluminium, also boron, yttrium, and/or zirconium, and tin and iron

GENERIC INDS INC 13.11.79-US-093184

M26 (10.06.81) C22c-19/07

03.04.80 as 044523 (53DH)

Co-Cr Alloy consists by wt. of Co 50-70%, Cr 20-40%, Mo 0-10%, Mn 0-3%, C 0-0.2% and Si and/or Al more than 0.5% respectively and below 8% in total. The alloy includes B less than 2%, Y and/or Zr less than 0.25% in total, Sn less than 20% and Fe less than 6%.

Formation of a good bond with a ceramic is rapidly attained in the new alloy. (5pp)

HOWM- D21 21622 Y/12 = J8 1036-212
Low value dental or jewellery alloy - comprising copper, gallium, zinc, iridium and precious metals

HOWMEDICA INC 14.05.76-US-686346

M26 + P23 P32 (22.08.81) *US4012-228 A61k-06/04 C22c-30/02

09.05.77 as 059341 (1135KB)

Alloy consists of 0-45% Au, 0-30% Pt, 0-20% Pd, 30-55% Cu, 5-1% Ga, 0-1% Zn, 0-0.1% Ir and % Au + % Pt + % Pd is at least 35%.

It is used on dentistry and jewellery is of low intrinsic value but has sufficient hardness for above uses and has lower casting temperature than prior art alloys. (J55152147) (3pp)

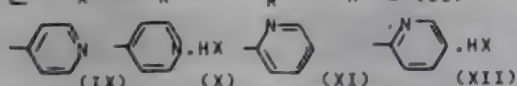
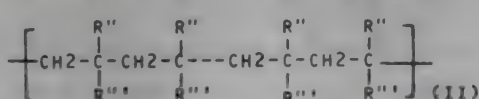
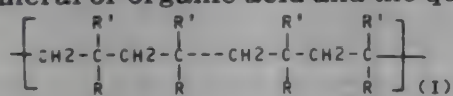
OREA D21 67349 S/42 = NL-167-592
New emulsions useful for cosmetics prodn

L'OREAL SA 07.04.70-LU-060676

A96 P33 (A18) (17.08.81) *BE-765-266 A61k-07 + B01f-17/52 C08f-297/02

06.04.71 as 004613 (922DJ)

O/W or W/O cosmetic emulsions of greater stability are produced using a block copolymer emulsifier comprising two or three repeating lipophilic blocks of formula (I) and two or three repeating blocks of formula (II) (where each block contains identical monomers, R is Ph or -C₆H₄-CHR₁R₂ in which R₁ and R₂ are H or -CONR₃R₄ or -COOR₅, R' is CH₃, R₁ and R₂ are each H or 1-4C alkyl, R₃ is satd. 6-18C hydrocarbonyl, R₄ is CH₃ or C₂H₅, R₅ is satd. 5-26C hydrocarbonyl, R is -COO-Y-NR₁R₂ or HX salt or (VIII) when R' is CH₃ or is (IX)-(XI) or -pC₆H₄-NR₁R₂' or its salt with HX. R' is H, R₁' and R₂' are each H or 1-4C alkyl, Y is satd. 2-4C hydrocarbonyl or a 2-4C hydrocarbonyl opt. substd. by heteroatoms and HX is a mineral or organic acid and the quaternised derivs.). (9pp)



EUGE- D21 14480 T/09 = NL-167-593
Hair colouring compns - contain the carbonate of an amino acid salt replacing ammonia

EUGENE-GALLIA (EUG) 15.12.70-FR-045239

E16 (17.08.81) *BE-771-516 A61k-07/13

07.12.71 as 016800 (922DJ)

In an oxidn. dyestuff-contg. compsn. for colouring human hair, there is an alkaline agent which is at least partially an alkali metal carbonate or ammonium salt of an amino acid(I).

(I) is pref. glycine and the agent comprises 1-10 wt.% of the formulation. The salt may be formed in situ by the addn. of an alkali metal or ammonium carbonate and the amino acid. The agent is non-volatile and non-aggressive and no unpleasant or irritating ammonia is required. (12pp)

BENC D21 35988 S/21 = NL-167-657
Finely divided maddrell's salt prepn

BENCKISER-KNAPSACK GMBH (BENC FARH) 13.11.69-DE-957063

E34 (17.08.81) *NL7016-602 C01b-25/44

12.11.70 as 016602 (922JB)

Finely divided Maddrell salt, opt. contg. up to 5 wt.% acid

pyrophosphate as an impurity, is obtd. by milling the coarse form and then tempering for 0.5-4(1-2) hrs. at 360-420(380-400) deg.C.

The product, an abrasive for incorporation into toothpaste formulations, has a water-soluble moiety of less than 3 wt.% as a result of this treatment. (3pp)

JOVA-★ D21 69571 D/38 ★ US 4286-609

Kit for hot oil treatment of fingernails - is moulding in comprising basin and holder for cuticle stick and bottle of oil

JOVAN INC 06.10.78-US-949197

A96 P24 (01.09.81) A45d-29/20

06.10.78 as 949197 (955RH)

A hot oil treatment for fingernails is carried out using a kit comprising a moulded combination of a soaking basin and a holder for a bottle of oil compsn. A measured amt. of oil is poured into the basin, and hot water is added to raise the liq. to a predetermined level, and the nails are immersed in the heated oil for a predetermined time. The softened cuticles may then be worked. The oil compsn. contains 0.1-20 wt.% sesame oil, 0.1-20 wt.% olive oil, 0.5-20 wt.% mink oil, 0.5-20 wt.% soybean oil, 1.0-10% polyoxyethylene (40) sorbitan peroleate, 1.0-60 wt.% polyoxypropylene (15) stearyl ether, 10-40 wt.% raw linseed oil, 1.0-75.0 wt.% cottonseed oil, 0.05-1.0 wt.% BHA, 0.05-1.0 wt.% propyle paraben, 0.10-5.0 wt.% myristoyl hydrolysed animal protein, 0.5-1.0 wt.% dl alpha tocopheryl acetate, 0.5-1.0 wt.% vitamin A palmitate, 0.01-5 wt.% Bronopol and 0.05-1.0 wt.% perfume oil.

The oil is free from microbes, harmful chemicals and allergens. The kit is simple, cheap and disposable. (5pp)

OREA D21 23958 B/13 = US 4287-172
Aminated polymers used in hair and skin care products - contain specified cyclic gps. and possess durable affinity for keratin

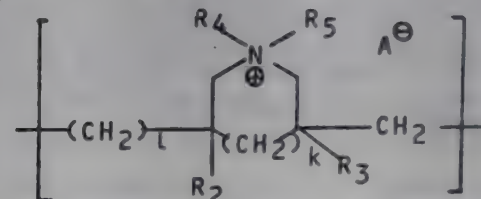
L'OREAL SA 23.09.77-LU-078170

A96 (01.09.81) *BE-870-685 A61k-07/06 + A61k-31/74

20.09.78 as 944140 (924JB)

Cosmetic compsn. for improving the suppleness and sheen of hair and facilitating the hydration and softness of skin, comprises in a cosmetic vehicle 0.01-15 wt.% of a polymer contg. recurring units of formula (Ib). The polymer has a mol. wt. of 2000-500,000.

In the formula k is 0 or 1, and l is 1 if k is 0, or is 0 if k is 1; R₂ and R₃ are each H or methyl; R₄ is H, -(CH₂)_mCH₃ (where m is 0-21), -(CH₂)_qOC₂H₅ (where q is 1 or 2) or -CH₂COOR₆ (where R₆ is 1-3C alkyl; and R₅ is -(CH₂)_qOC₂H₅, -CH₂COOR₆, -CH₂CH(OH)CH₂Cl, -(CH₂)_nCN (where n is 1 or 2), -CH₂CH:CH₂, -CH₂CH₂OCH:CH₂ or -(CH₂)₆Nr'r'r'(+). r', r and r' are each 1-4C alkyl. A is Cl, Br, I or -OSO₃CH₃. (13pp)



MERI D21 44491 D/25 = US 4287-173
Anticaries vaccine - contg. capsular polysaccharide of Streptococcus pneumoniae type 4,12 or 19 in topical compsn.

MERCK & CO INC 24.09.79-US-077971

B04 (D16) (01.09.81) *EP-30-166 A61k-07/16 A61k-39 + A61k-31/70

24.09.79 as 077971 (963PW)

Redn. of incidence of dental caries in mammals comprises the admin. of a capsular polysaccharide (I) of S.pneumoniae type 4,12 or 19. (I) may be administered locally or topically. Pref. at least 2 (esp. all 3) of (I) are administered simultaneously. Specifically claimed is an anticaries compsn. comprising at least 2 of (I), total amt. of each (I) not exceeding 100 micro.g per type.

Method effectively provides a subunit vaccine for caries. (4pp)

UYNY-★ D21 69730 D/38 ★ US 4287-191
5-Acyl-salicylanilide derivs. - useful as general antiseptics esp. in oral preparations against dental plaque and caries

NEW YORK STATE UNIV 14.04.80-US-140098

A60 B05 E14 (D22) (01.09.81) A01n-37/36 C07c-101/74 C07c-119/02

14.04.80 as 140098 (1248NS)

5-Acylsalicylanilide derivs. of formula (I) are new (Z is substd. Ph contg. up to 30C; R is substd. or unsubstd. alkyl or Ph contg. 2-30C and M is CN, F, NO₂, H, 1-5C alkyl or haloalkyl. The substituents in Z have an overall electron withdrawing effect on the Ph ring. Compns. contg. (I) have a partition coefft. over 4).

Cpds. (I) are non-toxic general purpose antiseptics and preservatives that are esp. effective against micro-organisms associated with dental plaque and associated diseases such as forms of dental caries, periodontal diseases and other oral

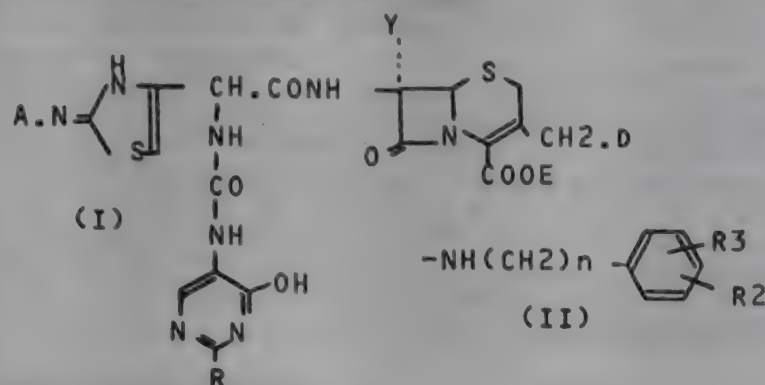
RCOc1ccc(O)c(M)c1C(=O)N[Z]

(I)

D13 NL 167714 D23 EP--35298 D23 J5 6065813

Cephalosporins of formula (I), including keto-enol and amino-imino tautomers, and their salts with bases are new. In (I) A is H, chloro- or bromo-acetyl, 2,2,2-trichloro-ethoxy-carbonyl, formyl or trityl. Y is H or methoxy. D is H, acetoxy, amino-carbonyloxy, pyridinium, amino-carbonyl-pyridinium or S.Het. Het is tetrazol-5-yl (opt. 1-methyl substd.), 1,3,4-thiadiazol-5-yl (opt. 2-methyl substd.) or 1,2,4-thiadiazol-5-yl. R is H, cyclopropyl, hydroxy, methoxy, NHR₁, NH₂.X, or a gp. (II) R₁ is H, 1-6C aliphatic hydrocarbonyl (opt. including a double or triple bond) or 3-6C cycloalkyl, Z is 1-4C alkylene or 3-6C cycloalkyl (substd. by X). X is OH, metcapto, CN, aminocarbonyl, aminosulphonyl, acetyl, NH₂ (opt. substd. by 1 or 2 methyl, or by one formyl, acetyl or methylsulphonyl), ureido, (m)ethoxy, acetoxy, methylthio, methylsulphiny, methylsulphonyl, carboxy or methoxycarbonyl. n is 0 or 1. R₂ and R₃ are each H, halo, OH, methyl, methoxy, acetyl-amino, amino-carbonyl-amino (opt. with 1 or 2 alkyl substituents.), alkylsulphonylamino, alkylcarbonyloxy, aminocarbonyl (opt. with 1 or 2 alkyl substituents.), NO₂, CN, methylthio, alkylsulphonyl, alkylsulphonyl.

(I) are used in human or veterinary medicine for prophylaxis or treatment of infections caused by Gram negative or positive bacteria or bacteria-like organisms. They are also useful as feed additives and as preservatives for e.g. polymers, lubricants, leather, wood etc. In mice their LD50 is over 4g per kg orally and over 2 g per kg subcutaneously. (77pp)



SMIN D22 66558 D/37 = EP --35-399
Copolymer of butyl acrylate ethyl-hexyl acrylate and acrylic acid - is pressure sensitive adhesive for medical dressings

SMITH & NEPHEW LTD 05.03.80-GB-007410

A14 G03 + P34 (A81 A96) (09.09.81) *GB2070-631 + A611-15/06 C09j-03/14

02.03.81 as 300847 (1302RH) (E) No-Citns. E(AT BE CH DE FR IT LI NL SE)

An adhesive copolymer of 16-62 wt.% n-butyl acrylate, 34-80 wt.% 2-ethylhexyl acrylate and 4-10 wt.% acrylic acid has a K-value of 90-110 (equiv. to inherent viscosity 1.7-3.0 dl/g).

Used as a pressure sensitive adhesive for medical dressings. It has cohesive strength and adhesion to wet skin and allows moisture transmission.

The copolymer pref. comprises 45-55 wt.% each of the butyl and 2-ethylhexyl acrylate and 5-7% acrylic acid. It is applied to a dressing as a 20-45% soln. in acetone or ethyl acetate to form a 15-240 g/sq.m. coating of moisture vapour transmission at least 300 g/sq.m./24 hours.

BIZE/ ★ D22 68351 D/38 ★FR 2475-391
Filter to purify cadaveric exhaust gas from metal coffin - has reverse flow by/pass to prevent implosion during air transport

BIZETA 03.06.80-FR-012695

P33 (14.08.81) A61g-17 B01d-53

08.06.80 as 012695 (448HM)

Filter to purify cadaveric gases exhausted from a coffin to avoid excessive internal pressure build-up and danger of explosion. This filter is partic. suitable for metal coffins used for the transport by air of cadavers, i.e. when an excess internal pressure may be experienced due to a sudden loss of altitude.

The filter is now provided with a non-return, reverse flow bypass so that a sharp rise in external pressure will occasion an immediate inflow of air to equalise internal and external pressures. There is now no danger of an implosion in these circumstances.

The non-return valve is pref. an elastic sleeve over a perforated exhaust pipe. (7pp)

BIZE/ ★ D22 68357 D/38 ★FR 2475-417
Filter to purify cadaveric gases from metal coffin - has two bell float chambers in series to bubble gas through liq. reagents

BIZETA 20.05.80-FR-011636 (08.05.79-FR-012134)

P33 (14.08.81) A61g-17 B01d-53/14

20.05.80 as 011636 Add to 8.3.79-012134 (448HM)

Parent patent was for a filter for the purificn. of cadaveric gases released from a metal coffin to avoid excessive internal pressure build-up. The filter comprises two filter chambers in series, the first contg. a liq. through which the gases are bubbled into a bell float. Gases are discharged from the bell float into the second chamber which contains a dry filter element.

The second chamber is now equipped with liq. and a bell float instead of a dry filter element, which is more expensive if to be equally effective. Pref. the two chambers contain different treatment reagents.

The exhaust from the second chamber is fitted with a droplet trap. (5pp)

ROHM D22 40964 B/22 = GB 1597-997
Removing bacteria from liq. - using ion exchange resin and submicron filter

ROHM & HAAS CO 23.11.77-US-854306

(16.09.81) *EP--2-072 B01d-27/02 B01j-39/04 + C02f-01/42

28.05.78 as 023078 (006HM)

Appts. for removing bacteria from liq. comprises a bed of bacteria-collecting macroreticular anion exchange resin, downstream of which is a filter of average pore size 0.03 to 1

microns. The filter is mounted in the appts. to be pressure-tight, so that pressure build-in the appts. indicates exhaustion of the resin and clogging of the filter by bacteria getting past the resin.

Pref. a bactericide such as AgCl is bound to the resin. Use is esp. domestic or portable water purification appts. (10pp)

SAOC D22 72706 A/41 = GB 1598-062
De:thia-penicillin derivs. from new Streptomyces species - useful as antibacterials and beta-lactamase inhibitors

SANRAKU OCEAN (PANL) 09.08.77-JP-084651 (31.03.77-JP-035375)

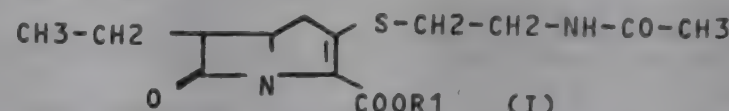
B02 C02 (D13) (16.09.81) *BE-865-578 A61k-31/40 C07d-209 C07d-487/04 + C07d-205

09.03.78 as 009338 (964WB)

Antibiotics PS-5 of formula (I) and salts are new (when R1 is H, 1-8C alkyl or triphenyl methyl). Pref. R1 is H, triphenyl methyl or methyl. The sodium salt of (I) is specifically calimed.

(I) are prepd. by aerobically cultivating streptomyces A271 in nutrient medium. Culture is pref. at 20-40 deg.C and pH 4-9 for 30-90 hrs.

(I) have strong antibiotic activity, beta-lactamase inhibitory activity and ability to enhance synergically the antibiotic activity of e.g. penicillins and cephalosporins against beta-lactamase producers. Typically ratio of (I) to the penicillin or cephalosporin is 10:1-1:100. (49pp)



TATL ★ D22 68416 D/38 ★GB 1598-102
Aq. cleansing compsn. contg. fatty acid sucrose ester(s) - and glyceride(s) a soap, nonionic surfactant, sucrose, amphoteric surfactant and liq. fatty acid

TATE & LYLE LTD 07.03.78-GB-008957

E19 (16.09.81) C11d-01/66 C11d-03/20 C11d-09/26 C11d-10/04

07.03.78 as 008957 (513AT)

Cleansing compsn. comprises 9-20 wt.% of a surfactant mixt. consisting of (by wt.) 6.5-9.5% fatty acid sucrose esters, 2-4% fatty acid mono- and di-glycerides, 15-17.5% sodium and/or potassium soap, 26-33.5% nonionic surfactant, 3-5.5% sucrose, 20-40% amphoteric surfactant, 6-9% liq. long chain fatty acid and up to 3% dyestuff, perfume, biocide, etc., dispersed in water to 100%.

Pref. the esters are sucrose mono- and di-esters of 8-20C fatty acids, esp. mixed acids derived from naturally occurring triglycerides. Pref. a proportion of the soap is a fully hydrogenated soap; the non-ionic surfactant is a fatty acid hydroxy amide; the amphoteric surfactant is a salt of a carboxylated fatty acid deriv. of a nitrogen heterocycle; and the liq. fatty acid is oleic acid.

Prods. are useful as hand cleaners which are kind to the skin, non-polluting, pleasant to use and highly effective in removing oily industrial dirt. (4pp)

BADI D22 00100 A/01 = GB 1598-154
Water-soluble polyacrylic acid iodine complexes prepn. - using iodine and iodide salt in specified amounts, for use as disinfectants

BASF AG 10.03.77-DE-710437

A14 P34 (A97) (16.09.81) *BE-858-225 C08f-08 + A01n-25/02 A61k-33/18

09.03.78 as 009330 937RH)

Polyacrylic acid/iodine complex is mfd. from (a) 14-80% by wt. polyacrylic acid having K value of 8-60 and (b) 86-20 % by wt. mixt. of iodine and iodide ions (derived from iodine salts pref. of Na, K or NH4) which are allowed to interact at 0-30 pref. 10-25 deg.C in an amt. of water sufficient to produce complete dissolution. In the mixt. of ratio of iodine equivs. to iodide ion equivs. is from 0.2:1 to 1.1:1.

The aq. soln. of the complex is used as surfactant free non foaming disinfectants. The mfr. process has lower energy requirement with no need to filter the soln. and without undissolved iodine. (5pp)

TOXF ★ D22 68862 D/38 ★J5 6096-998
Deodorising and mildew proofing paper - contains activated carbon fibre of acrylonitrile, pulp and thiazolyl-benzimidazole or tri:azo azolyl-adamantane chloride etc.

TOHO BESLON KK 27.12.79-JP-169313

A97 E19 F09 (05.08.81) D21h-05/18

27.12.79 as 169313 (172BZ)

The paper contains (1) activated carbon fibre made from acrylonitrile fibre, (2) pulp and (3) mildewproofing agent. The blend ratio of (1) and (2) is 40:60 to 60:40.

(2) includes ordinary pulp and rayon and synthetic pulps. (1) is cut in the length of about 3 mm and blended into pulp dispersed in

the beater. Water insol. (3) is added in 0.05 to 1% to water dispersion of the above mixt. and water soluble (3) is coated over formed paper by spraying in 0.1 to 1%. Water insol. (3) are e.g. 2-(4-thiazolyl) benzimidazole and N-dimethyl N'-phenyl-N'-(fluorodichlorothio)-sulphamide and water soluble (3) are 1-(3-chloroalkyl)-3,5,7-triazo-azonyladamantane chloride, etc.

The paper shows good deodourising and mildewproofing effects and is suitable for cupboard, cabinet, refrigerator, wrapping of fruits and building material. (4pp)

TOXW ★ D22 68865 D/38 ★ J5 6097-201
Insecticidal repellent - comprising bag contg. base impregnated with liq. insecticide and bag contg. thermogenic substance housed in polyolefin-coated metal foil bag

TOYO INK MFG KK (MITU) 31.12.79-JP-173235
A97 C03 (05.08.81) A01n-25/20 A01n-53 A01n-57

31.12.79 as 173235 (117HM)

Insecticidal repellent agent is obtd. by impregnating a base material of paper, etc., with a liq. insecticide, e.g., allethrin, diazinon, DDVP, etc., and placing in a flattened bag consisting of an inner gas-permeable synthetic resin (e.g., polyethylene) film and an outer paper layer. One side of the flattened bag is boned with the light metal (e.g., Al foil) thin film side of a gas-permeable bag contg. a chemical thermogenous substance, e.g. a mixt. of Fe powder and a filler such as (activated) C, diatom earth, Fe oxide, or MnO₂. The assembly consisting of the 2 bags is put in an enclosed bag of a light metal thin film at least one side of which is provided with a polyolefin film.

The insecticidal repellent agent is easily and safely stored for a longer length of time and can vaporise and sublimate the insecticide present in smokeless fumes for a long period of time by heating the insecticide with heat produced by the thermogenous substance present at 50-80 deg.C when broken by hand. (5pp)

TOYJ ★ D22 68867 D/38 ★ J5 6097-203
Algae and microorganism controller - contg. bis(tribromomethyl) sulphone used in pulp and paper mills, and in chemical factories

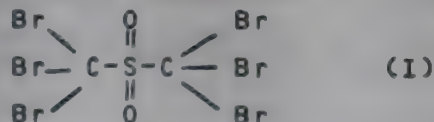
TOYOSODA MFG KK 29.12.79-JP-172603

C03 E16 F09 (D15) (05.08.81) A01n-41/10

29.12.79 as 172603 (NS)

Controller contains bis(tribromomethyl)sulphone of the formula (I). The controller is applicable in the fields of pulp and paper making mills or other chemical factories, where slime generated contributes to the lowering of paper or pulp quality or the occurrence of various other troubles e.g. choking of cooling water system, etc. The controller is pref. used after being diluted with a carrier, water, ethyl alcohol, isopropyl alcohol, acetone, cyclohexane, DMF, etc., together with an assistant, e.g., surfactant, etc.

In an example, 1 pt.wt. bis(tribromomethyl) sulphone was dissolved in 100 pts.wt. isopropyl alcohol, and the soln. added to rain water contg. algae in an amt. corresp. to 50 mg (active component)/litre. After standing for 2 hours, no algae was observed. (2pp)



SAKA/ ★ D22 68919 D/38 ★ J5 6097-456
Deodoriser for ammonia, hydrogen sulphide, mercaptan(s), amine(s) etc - obtd. by combining humic acid and/or organic acid with active silicic acid sol

SAKA II 21.12.79-JP-165697

P34 (06.08.81) A611-09/*

21.12.79 as 165697 (5HM)

Deodoriser is prepd. by combining humic acid (mole wt. 100-1000) and organic acid such as hydroacetic acid, glyoxalic acid, etc. (as a soln. of pH 1-5) singly or together in active silicic acid sol (SiO₂ content 0.01-60%). The acid is combined in amt. 3-50% on active silicic acid sol.

When silicic acid sol alone is reacted with NH₃ gas, it aggregates to form a silicic acid gel which does not have deodorising activity. By using silicic acid sol as a mixt. with humic acid and/or organic acid silicic acid sol in not aggregated to gel even after reaction with NH₃ gas and shows stable deodorising effect.

It has been known that active silicic acid sol has OH group in its silanol gp. and the OH gp. has deodorising effect on NH₃ gas, H₂S, etc.. But its deodorising effect on amine, mercaptan, aldehyde, etc. has been unsatisfactory. Humic acid and organic acid having carboxyl gp. have also been used as deodorisers, but their deodorising effect on NH₃ gas, H₂S, etc. has been unsatisfactory. By combining both deodorisers in suitable proportions they show

AGEN ★ D22 68920 D/38 ★ J5 6097-457
Anticoagulant material - based on 1,2-polybutadiene compsn.

AGENCY OF IND SCI TECH 07.01.80-JP-000708

A96 B04 P34 (A12 B07) (06.08.81) A61m-01/03

07.01.80 as 000708 (5PW)

Material is formed by (a) using 1,2-polybutadiene or the blend composition contg. 1,2-polybutadiene, as the starting material, (b) immersing it in hydrophilic compound, hydrophobic compound or their organic solvent soln. for impregnating the compound in it, (c) removing organic solvent by drying it and (d) treating it by low temp. plasma treatment using inactive gas such as argon, helium, etc. for bonding hydrophobic compound or hydrophilic compound to it in either low molecular form or polymeric form. The obtd. anticoagulating material has good bending property, elasticity and strength and can be used as material for the parts of medicinal equipment where blood is directly contacted. (6pp)

CHIY ★ D22 69044 D/38 ★ J5 6098-280
Deodorising and strengthening water-contg. soil - by dispersing divalent iron salt soln. in soil and adding gypsum and mixt. of Portland cement and blast furnace slag

CHIYODA CHEM ENG CO 29.12.79-JP-172966

L02 (07.08.81) C09k-17

29.12.79 as 172966 (84HM)

Divalent Fe salt soln. is directly dispersed in water-contg. soil having a bad odour and then additives A and B are added in order or at the same time in ratio A/B of 1/90-30/70. The additive A is gypsum. The additive B is a mixt. of 40-50% wt. portland cement and 60-45% wt. blast furnace slag of the same or smaller particle size as the portland cement. Total amt. of A and B added is pref. 50-150 kg per 1 m water-contg. weak soil. Pref. divalent Fe salt is preliminarily dispersed in water-contg. weak soil with bad odour and A and then B are added. Wt. ratio of A/B is 10/90-30/70 or A is added and then divalent Fe salt soln. is dispersed and B is added. Wt. ratio of A/B is 10/90-30/70.

The process deodorises and strengthens water-contg. weak soil, e.g. accumulated soil in rivers, lakes, marshes, water-pool, and sewerage ponds. (9pp)

NIPK D22 02693 A/02 = J8 1036-170
Sulphonyl-phenyl carbamate derivs. as bactericides and fungicides - used for the preservation of paints and goods made of wood paper, textiles, leather and metals

NIPPON KAYAKU KK 23.04.74-JP-045106

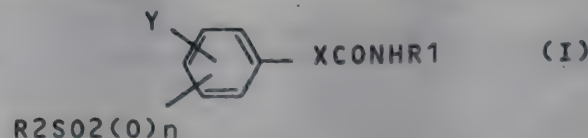
C03 E14 F06 (F09) (22.08.81) *J50135-223 + A01n-47/22 C07c-147/06 C07c-155/02

24.04.74 as 045106 (38NS)

The Ph carbamates (I) (where Y is H, halogen or Me, R' is Me or Et; R₂ is lower alkyl; n is 0 or 1; X is 0 when n is 0, and X is S when n is 1) and synthesised and used as bactericides and fungicides.

In an example, 3-propylsulphonyl-4-chlorophenyl methylcarbamate (II) was synthesised by treating 4-chloro-3-propylsulphonyl phenol with methyl isocyanate and Et₃N. Similarly, 12 other (I) were also prepd.

The min. inhibitory concn. of II against *Aspergillus niger*, *Penicillium roqueforti*, *Bacillus subtilis*, and *Serratia marcescens* was 1 mg in a culture dish of 9 cm dia. and 1.5 cm depth. (J50135223) (6pp)



DEGS D22 00223 Y/01 = NL-167-595
Aq. iodophor soln. useful as disinfectant - contg. iodine, glycidic homopolymer or copolymer and opt. phosphoric acid

DEGUSSA AG 21.06.75-DE-527701

A97 P34 (17.08.81) *DE2527-701 + A611-02/18

18.05.76 as 005292 (922BZ)

An iodophor compsn. useful as a storage stable disinfectant contg. a relatively high iodine concentration (and a high inactive : active iodine ratio) is produced from (a) 0.5-4 wt.% iodine, (b) 1.6-15 wt.% of the polymerisation product of glycidol and up to 10 mol.% of another epoxide and (c) 0-30 wt.% H₃PO₄, the (a):(b) wt. ratio being not more than 3:10. (6pp)

ETHI D22 11368 S/06 = NL-167-596
Polypropylene suture thread for medical - use

ETHICON INC 31.07.69-US-846412

A17 F01 P34 (A34 A96) (17.08.81) *NL7011-148 A611-17 + D01f-06/06

28.07.70 as 011148 (922DJ)

melt extrusion of a (I) having a wt. ave. m.wt. of 294000-316000 and a no. ave. m.wt. of 78400-82100 are improved by drawing it 6.6 times at 127-163 deg.C and then heat treating at 141-149 deg.C, whereupon the monofilament is crimped to 76-91% of its drawn length.

The monofilament has a good combination of tensile and knot strength, elongation and flexibility and is useful in surgery. (10pp)

BASH= ★ D22 69327 D/38 ★SU-791-620
Sulphate-reducing bacteria growth prevention - by treating industrial water with tert.-butyl tetra:hydro-oxazine, useful in petroleum prodn.

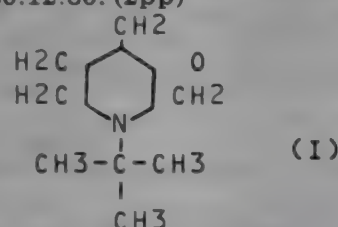
BASHKIR PETROL IND(MOFJ) 26.02.79-SU-731361

E13 H01 (D15) (30.12.80) C02f-01/50

26.02.79 as 731361 (114VE)

Growth prevention of sulphate-reducing bacteria(e.g. to prevent bacterial contamination of technological water e.g. in petroleum strata) is intensified using 3-tert.-butyl- tetrahydro-1,3-oxazine of formula (I).

Typically, suppression of bacterial growth by proposed oxazine (I) and acrolein reagent respectively is (%): 63 and 0 for 0.001% (reagent concn.): 86 and 0 for 0.005%; 100 and 36 for 0.01%; 100 and 81 for 0.1%. Bul.48/30.12.80. (2pp)



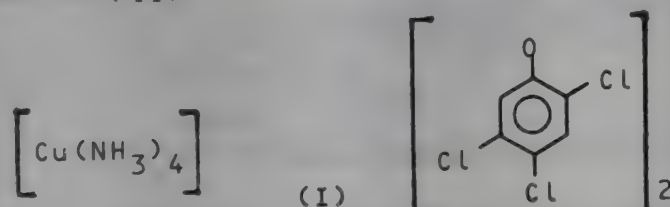
BASH= ★ D22 69328 D/38 ★SU-791-621
Sulphate-reducing bacteria growth prevention - using ammoniacal complex of copper-tri:chloro phenate for water treatment in petroleum industry

BASHKIR PETROL IND(UFAP) 26.04.79-SU-759419

E12 H01 (D15) (30.12.80) C02f-01/50

26.04.79 as 759419 (114VE)

Growth prevention of sulphate-reducing bacteria (e.g. to prevent bacterial contamination of technological water e.g. in petroleum strata) is intensified using ammoniacal complex of 2,4,5-trichlorophenate (I) (pref. at dosage 0.001-1 wt.%) of formula (I): In an example, suppression of bacterial growth by proposed phenate (I) and 2,4-dichlorophenol respectively is (%): 75 and 10 for 0.001% (reagent concn.): 100 and 56 for 0.1%; 100 and 82 for 1%. Bul.48/30.12.80. (2pp)



IOWA ★ D22 69541 D/38 ★US 4286-341
Vascular prosthesis comprising hydrogel on support tube - having inner homogeneous layer and outer heterogeneous layer

IOWA STATE UNIV RES INC 23.05.79-US-041607 (16.04.79-US-030146)

A96 P32 (A32) (01.09.81) A61f-01/24

23.05.79 as 041607 (928DJ)

Vascular prosthesis comprises a flexible support tube (I) having an inner layer (II) of porous homogeneous hydrogel and an outer layer (III) of porous heterogeneous hydrogel. (II) has pores of less than 20 microns Feret dia. and (III) has pores of the same size with additional pores of 20-200 microns Feret dia.

Prosthesis (A) is made by (1) impregnating (I) with a polymerisable mixt. (IV) of a monoolefinic monomer and a minor amt. of a crosslinking agent dissolved in a cosolvent comprising (a) a constituent in which both monomer and polymer are readily soluble and (b) a constituent in which the monomer is soluble but the polymer is insol. and which exceeds 45 wt.% of the mixt.; (2) polymerising the monomer to give a crosslinked heterogeneous hydrogel having micro- and macro-voids; (3) coating the interior of the tube with a second polymerisable mixt. with the same constituents as (IV) but contg. less than 45 wt.% of (b); and (4) polymerising the monomer to form a smooth hydrogel lining having a homogeneous microstructure free of macrovoids.

(A) is suitable as a replacement or as a bypass for vessels under 10 mm i.d. as well as larger vessels. The flow surface is of low thrombogenicity while having a stratified microstructure which promotes cellular ingrowth. (11pp)

UNIC

D22

64989 B/36 = US 4286-586

Orthopaedic cast or splint, or bandage for applying cast - comprising thermoplastic copolymer of lactone and acrylate having controlled degree of crosslinking

UNION CARBIDE CORP 24.02.78-US-881138 (18.01.80-US-113209)

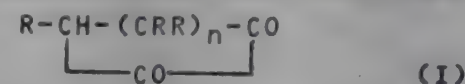
A96 P32 P34 (A23) (01.09.81) *EP---3-845 A61f-05/04

18.01.80 as 113209 Div ex 4226230 (+ 27.3.79-US024320) (945MR)

Orthopaedic device for fixing and immobilising body parts comprises crosslinked copolymer produced by reacting at 25-300 deg.C an active-H contg. initiator with a molar excess of (A) 90-99.5 wt.% lactone of (1), where n is 3-6, at least n+2 R's are H and the other R's are 1-10C alkyl and (B) 0.5-10 wt.% polyfunctional acrylate monomer. The uncrosslinked copolymer has reduced viscosity of 0.2-2.0 at concn. 2 g/ml. in benzene.

The crosslinked copolymer e.g. in the form of a bandage and opt. with a support is heated above its softening point, manipulated to conform to the body part shape, then cooled to become rigid.

Device is comfortable to wear, easy to apply and strong. (12pp)



ALZA

D22

60766 D/34 = US 4286-592

Sustained-release bandages - comprising drug layer between backing layer and contact adhesive layer

ALZA CORP 04.02.80-US-117846

B07 P32 P34 (01.09.81) *EP--33-615 + A61m-07

04.02.80 as 117846 (006HM)

Bandage which applies drugs to the skin has an impermeable backing, a skin-engaging adhesive layer, and sandwiched between them a carrier layer in which a drug is diffused.

A defined correlation between solubility of the drug in the carrier, and in the contact adhesive, controls the drug. admin. rate at constant level for a predetermined time period. Pref. the carrier is silicone or a mixt. of polyisobutene and mineral oil. (5pp)

BAXT ★

D22

69568 D/38 ★US 4286-597

Storing blood in flexible chlorine-free plastic containers - contg. di:octyl adipate plasticiser

BAXTER TRAVENOL LAB 21.04.80-US-142290 (26.10.78-US-954970)

A96 E17 P33 P34 (A23) (01.09.81) A61j-01 A61m-05

21.04.80 as 142290 (558HM)

Blood is stored in a flexible, hemocompatible, sterilizable, chlorine-free plastic material contg. sufficient dioctyl adipate to cause a reduced blood plasma hemoglobin content after 21 days, compared with that obtd. using the same material free of dioctyl adipate. Other ester plasticisers such as di-2-ethyl-hexyl phthalate can be used.

Halogen-free plastic formulations can for the first time be formulated into blood bags, tubing and other medical blood-contg. devices and exhibit unexpectedly low red cell haemolysis rates, compared with the corresp. plasticiser-free formulations. (4pp)

MINN ★

D22

69594 D/38 ★US 4286-754

Wick for olfactory liquid dispenser - formed of glass microspheres bonded together to leave network of interconnected pores

MINNESOTA MINING CO 10.05.76-US-685116

P34 (01.09.81) A61l-09

10.05.76 as 685116 (295KB)

Liq. is dispensed to the atmosphere using a wicking structure whose lower end dips into a reservoir of the liq. to be dispensed. The wick consists of a matrix of closely packed, solid, rounded particles stuck together to leave an interconnected network of pores occupying at least 20 vol.% of the structure. The average particle size is 150-600 micro-meters, with all the particles having a dia. within 20% of the average dia. The pores are uniform in size.

The wick may be used for dispensing a volatile air-freshening liq. The liq. is released at a uniform rate over an extended period of time. (8pp)

ELIL

D22

45990 D/26 = US 4287-120

Re-acylated derivs. of cyclic peptide antibiotics - useful as antifungal agents

ELI LILLY & CO 25.08.80-US-181445 (13.12.79-US-103130)

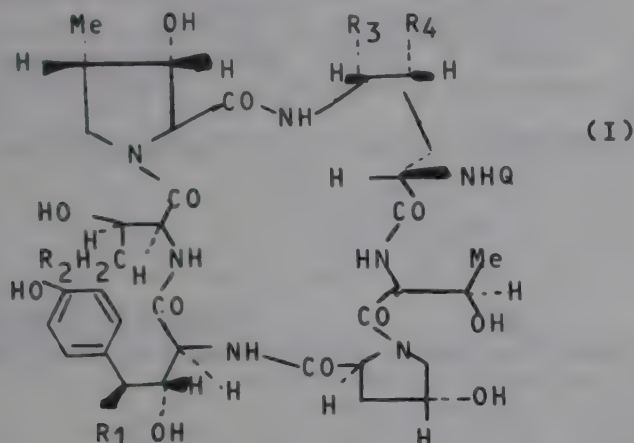
B02 C02 (01.09.81) *BE-886-578 + A61k-37 C07c-103/52 C12p-21/04

25.08.80 as 181445 (367PW)

Cyclic peptides of formula (I) are new (a) R1 is H, R2 is H and R3 and R4 are H or OH, or (b) R1 is OH, R2 is H, R3 is OH or 1-6C

alkoxy and R4 is OH, or (c) R1 is OH, R2 is CONH2 and R3 and R4 are OH; and Q is COR5, where R5 is 6-24C alkyl or alkenyl, with the proviso that (i) R5 cannot be 13-15C n-alkyl or linoleyl when R1, R3 and R4 are OH and R2 is H, (ii) R5 cannot be n-heptadecyl or linoleyl when R1 and R2 are H, and R3 and R4 are OH or when R1, R2, R3 and R4 are H or when R1 and R4 are OH, R2 is H and R3 is MeO, and (iii) R5 cannot be n-tridecyl when R1, R3 and R4 are OH, R2 is CONH2.

(I) are analogues of antibiotics A-30912A, -B, -D and -H (US4024245) and S 31794/F-1 (US4173629) and have analogous antifungal activity, e.g. against *Candida albicans*, *Trichophyton mentagrophytes*, *Saccharomyces pastorianus* and *Neurospora crassa*. They can be used as topical or systemic antimycotic medicaments or as disinfectants (antiseptics). (-pp)



TOWS/ ★ D22 69709 D/38 ★ US 4287-153
Disposable article for absorbing bodily excretions - contg. saline water indicating material

TOWNSEND M S 30.11.79-US-098914 (20.09.78-US-943960)

A96 E24 S03 P32 (01.09.81) A61f-13 G01n-33/52

30.11.79 as 098914 (513AT)

Disposable article for absorbing bodily excretions comprises (a) a quantity of absorbent material for absorbing bodily excretions; (b) a semitransparent water-impermeable backing sheet for retaining the absorbent material and absorbed excretions and (c) a quantity of non-leachable saline water indicating material placed in contact with the absorbent material and in close proximity to the semitransparent backing sheet, to indicate the presence of absorbed secretions.

The saline water indicating material is pref. comprised of a water-insoluble polymeric ion exchanger in intimate contact with a water-insoluble polymeric exchanged-ion indicator. The water-insoluble ion exchanger is pref. a hydrogen ion loaded cation exchanger and the exchanged ion indicator is pref. a cellulose-bound acid-base indicator obtd. by reacting cellulose with a reactive dye such as 4-anilino-3'-(2-hydroxysulphonyloxy-ethylsulphonyl)-azobenzene-6'-carboxylic acid (I).

The prods. may be made in the form of bandages, diapers, sanitary napkins, etc. which give a visible colour change in contact with urine, perspiration, feces and other saline body excretions. The indicators are non-leachable and therefore do not come into contact with the skin, and the colour change is visible through the semitransparent backing. (13pp)

MERI ★ D22 69721 D/38 ★ US 4287-175
Improving the comfort and wearing time of contact lenses - using ophthalmic insert prepd. from water-soluble solid polymers

MERCK & CO INC 01.06.79-US-044620 (29.07.75-US-600167)

A96 (01.09.81) A61k-31/70 A61k-47

01.06.79 as 044620 (22.6.78-US-918121) (478AT)

The comfort and wearing time of contact lenses is improved by inserting into the eye a solid polymer (I) which is soluble in lacrimal fluids. (I) has surface area 5-800 mm², length 1-30 mm, and width and height 0.25-30 mm; and is suitably a cellulose deriv. natural gum, starch deriv., dextrose, polyalkylene glycol, polyvinylmethyl ether, polyethylene oxide, acrylate, or xanthan gum, or mixts.

Pref. (I) include cellulose derivs., esp. hydroxypropyl cellulose of mol. wt. 30,000-1,000,000 ('Klucel' (RTM) prods.). The insert is pref. in the shape of a rod, doughnut oval, or 1/4 moon. Pref.

inserts have surface area 10-200 esp. 10-100 mm², length 5-20 mm, and width and height 1-10 esp. 1-5 mm; and have dissolution time 4 hrs. - 4 days, pref. 6-24 hrs.

(I) acts as a slow-release wetting agent, and is effective in improving clarity of vision, and improving lens wearing comfort and wearing time over a much longer period of time. (5pp)

KURS D22 15030 C/09 = US 4287-177
Protective covering material for wounds - based on hydrophilic polymer giving reduced film forming time

KURARAY KK (YAMA) 18.08.78-JP-101267

A96 P34 (A14) (01.09.81) *DE2933-250 + A61k-31/78

15.08.79 as 066699 (982JB)

Protective covering for forming a film or coat on skin and/or wound surfaces, consists of a hydrophilic, water-insol. and non-crosslinked polymer (I) in powder form, polyethylene glycol (II) and an aq. liq. (III). The polymer of (I) is derived from a monomer of formula CH₂:CR₁.COO(R₂O)_nR₃ (where R₁ is H or CH₃; R₂ is 2-5C alkylene; R₃ is H, 1-3C alkyl or 2-3C alkyl subst. by amino or 1-3C alkoxy; and n is 1-30). At least 67 wt.% of the polymer is composed of the monomer.

(I) comprises 20-80 wt.% of (I)+(II)+(III) and (II)+(III) comprise 80-20 wt.% of the total amt. of components. (III) comprises 20-70 wt.% of the total amt. of the components. Film or coat formation on the skin is achieved rapidly. (17pp)

ROUS D22 73624 B/41 = US 4287-193
Amino:thiazolyl-acetamido cephalosporin derivs. - useful as antibiotics and disinfectants

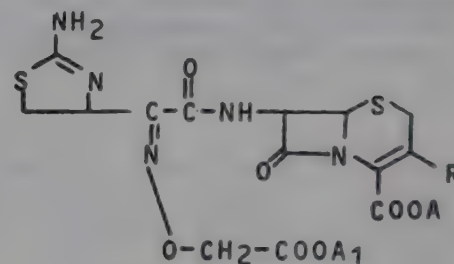
ROUSSEL UCLAF 07.04.78-FR-010387

B02 (01.09.81) *BE-875-379 A61k-31/54 C07d-501/56

03.04.79 as 026767 (982MR) 029)

Syn isomers of 7-(2-(2-amino-4-thiazolyl) 2-(carboxymethoxyimino) acetamido) ceph-3-eme-4-carboxylic acid cpds. of formula (I) and their salts are new. In (I), R is -CH₂.S.R₁ R is -CH₂.S.R₁ (where R₁ is heterocyclyl gp.); A is H, alkali(ne earth) metal, NH₄, an easily cleavable ester gp. or an organic amine; Al is H, 1-3C alkyl, alkali(ne earth) metal, NH₄, an easily cleavable ester or an organic amine.

(I) is used to treat bacterial infections in warm-blooded animals, in the form of tablets, dragees, geules, granules, suppositories, injectable solns. or suspensions, creams, etc. (11pp)



KING/ D22 03859 C/03 = US 4287-251
Disposable absorbent nonwoven laminate - comprising alternate layers of nonwoven absorbent material and nonwoven hydrophobic material

KING M K (BUCY) 16.06.78-US-916298

A96 F04 P32 P73 + P34 (01.09.81) *EP---6-647 A61f-13 + A61l-15 B32b-27/14 D04h-01/04

16.06.78 as 916298 (006PW)

Absorbent disposable nonwoven laminate, esp. for use as surgical sponge material, has external layers of absorbent material, and similar internal layers alternating with support layers of apertured non-absorbent material. The layers are spot-bonded together.

Pref. the absorbent layers comprise spun-bonded continuous rayon filaments, the non-absorbent layers comprising thermoplastic materials. (10pp)

See Also

D15 EPG003879 D21 J5 6097208 D21 US4287191

BADI D23 47300 B/26 = EP G002-498
Hydroxy-citronellol prepn. by hydrating citronellol - in aq. soln. contg. alpha-methyl-branched alkanol in contact with cation exchanger

BASF AG 15.12.77-DE-755945

E17 (09.09.81) *DE2755-945 C07c-29/04 C07c-31/20 C11b-09

07.12.78 as 101591 (481WB) (G) US3257469 US3285977 2.Jnl.Ref E(CH DE FR GB NL)

Hydroxycitronellol is produced by the addition reaction of water on to citronellol (I).

A homogeneous soln., contg. per kg of (I), 0.1-10 litres, pref. 1-5 litres of water and an alpha-methyl-branched prim., sec. or tert. 3-5C alkanol, is treated with a strongly acidic cation exchanger; and the reaction mixt. is then distillatively processed to the desired process prod. (4pp)

HENK ★ D23 68222 D/38 ★ EP --35-183
Perfume compsn. contg. 2-phenyl-1 (2)-propenyl carboxylic acid ester - prepd. by reacting 2-phenyl-1,2-propane-di:ol with carboxylic acid anhydride

HENKEL KG AUF AKTIEN 27.02.80-DE-007232

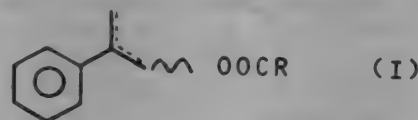
E14 (09.09.81) A01n-25 A61k-07/46 C07c-69/15 C11b-09 C11d-03/50 C11d-09/44

20.02.81 as 101199 (200KB) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

2-Phenyl-1(2)-propen-1-yl-carboxylic acid esters having formula (I) (where R is 1-4C alkyl) are used as perfume materials. Perfume compsns. contg. 1-50 wt.% (I), w.r.t. total compsn., are claimed.

The (I)-contg. compsns. can be used directly as perfumes, and for perfuming cosmetics or for improving the smell of industrial prods., e.g. detergent compsns., disinfectants and textile treatment compsns. (I) have strong, flowery notes. (I where R is Me) has a sweet, lilac, hyacinth and ripe grain note and is partic. suitable for neroli- and lilac fragrance compsns.

(I) are prepd. by reacting 2-phenyl-1,2-propanediol with excess of carboxylic acid anhydride having formula (RCO)₂O, in the presence of an acid catalyst at 60-125 deg.C. (I) can be used as perfumes without separating the 3 isomer components obtd. (9pp)



BIOC ★ D23 68274 D/38 ★ EP --35-298
Solvent fractionation of olive oil stearin - prods. useful as confectionery fat, cosmetic and pharmaceutical base, and sources of fatty acids and squalene

BIOCELL SPA 28.02.80-IT-020225

B07 (D13 D21) (09.09.81) C11b-07

16.02.81 as 200180 (1251BZ) (E) FR2427386 GB-750045 US3431116 E(BE DE FR GB NL)

Solvent fractionation process for olive oil stearin (A) comprises dissolving up (A) in a mixt. of 'hydrocarbon' solvents (I) of b.pt. below 130 deg.C, at (A): solvent ratio 5:1, then cooling and crystallising at 15 deg.C. This gives a ppte. enriched in satd. C16 fatty acid and a filtrate enriched in mono- and di-unsatd. C18 acids. Alternatively, acetone is used at solvent ratio 7.5:1 with crystallisation at 25 deg.C, and the filtrate is further resolved at solvent ratio 3:1 and crystallisation temp. 2 deg.C to give a second ppte. and a filtrate.

Also new are the fractions obtd.: (a) glyceride fraction of m.pt. 60-70 deg.C; (b) semisolid fraction of m.pt. under 46 deg.C. and (c) an oil fraction with solidification point under 10 deg.C.

Fraction (b) is useful as a component of confectionery fat, esp. as a partial replacement for cocoa butter; fractions (a) and (b) are useful as cosmetic and pharmaceutical base materials. Hydrolysis of (a) produces palmitic and stearic acids; and of (b) or (c) oleic acid. Fractions (b) and (c) are also sources of squalene. (13pp)

SAKB D23 14432 B/08 = GB 1597-864
2-(2-Pentynyl)-cyclopentanol derivs. - useful intermediates for jasmine cpds., used in perfumery

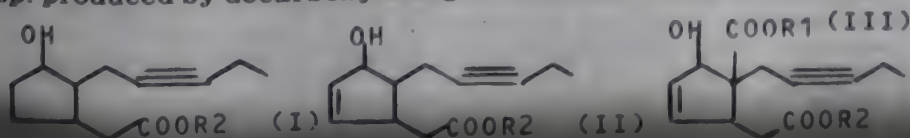
OTSUKA KAGAKU YAKUH 12.08.77-JP-097181

E15 (16.09.81) *DE2824-844 C07c-69/74

30.05.78 as 024474 (974MR)

Novel 2-(2-pentynyl) cyclopentanol derivs. are of formula (I). R₂ is 1-6C opt. branched alkyl, alkenyl or aralkyl.

Pref. (I) are produced by selectively reducing (II) which is itself esp. produced by decarboxylating (III) in which R₁ is as R₂.



Prods. are intermediates in the synthesis of jasmonoid cpds. which are important as perfumes. (7pp)

SAKB D23 14431 B/08 = GB 1597-865
Cyclopentanol derivs. - are useful intermediates for jasmine cpds., used in perfumery

OTSUKA KOGAKU YAKUH 12.08.77-JP-097175 (12.08.77-JP-097174)

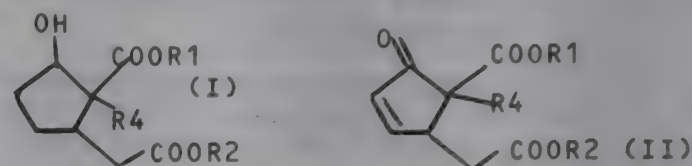
E15 (16.09.81) *DE2824-843 C07c-69/74

30.05.78 as 024476 (974MR)

Novel cyclopentanol derivs. are of formula (I). R₁ and R₂ are each 1-6C opt. branched alkyl, alkenyl or aralkyl. R₄ is 2-pentenyl or 2-pentynyl.

Pref. (I) is prepd. by selective reduction of (II). Pref. the reducing agent is an Al hydride.

Prods. are intermediates in the synthesis of jasmonoid cpds. which are important as perfumes. (10pp)



SAKB D23 14430 B/08 = GB 1597-866
Novel 2-cyclopentenone derivs. - are useful intermediates for jasmine(s), used in perfumery

OTSUKA KAGAKU YAKUH 12.08.77-JP-097172 (12.08.77-JP-097171)

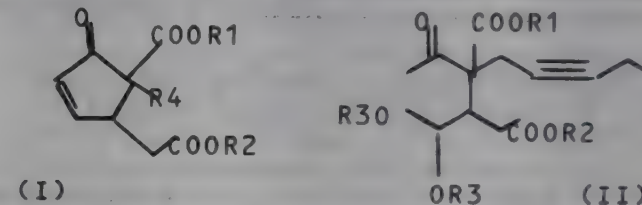
E15 (16.09.81) *DE2824-842 C07c-69/95

30.05.78 as 024477 (974MR)

Novel 2-cyclopentenone derivs. are of formula (I). R₁ and R₂ are each 1-6C opt. branched alkyl, alkenyl or aralkyl. R₄ is 2-pentenyl or 2-pentynyl.

Pref. (I) are produced by subjecting a 4-acetyl-6-nonynoate of formula (II), where R₃ is as R₁, to ring closure.

Prods. are useful as intermediates for the synthesis of jasmonoid cpds. which are important as perfumes. (9pp)



NIPE ★ D23 68885 D/38 ★ J5 6097-24
Alkenyl norbornanone cpds. prepn. - by reacting alkenyl norbornene with acid, hydrolysing adduct obtd. and oxidising alkenyl norbornanol produced

NIPPON PETROCHEM KK 29.12.79-JP-172064

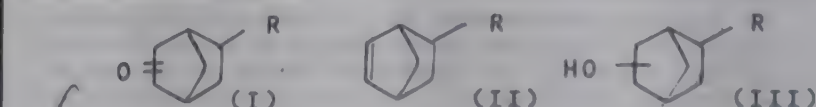
E15 (05.08.81) A61k-07/46 C07c-45/29 C07c-49/65

29.12.79 as 172064 (59WB)

An alkenyl norbornanone of formula (I) where R is 2-3C alkenyl (e.g. 5-vinyl-1,2-norbornanone and 5-vinyl-3-norbornanone) is prepd. by reacting an alkenyl norbornene of formula (II) with an acid (e.g. H₂SO₄, H₃PO₄, toluene sulphonic, formic, acetic and oxalic acids) at 0-100 deg.C to give an adduct, hydrolysing the adduct at 50-150 deg.C opt. in the presence of acid or base catalyst to provide an alkenyl norbornanol of formula (III).

The isolated and pref. purified norbornanol is oxidised in the liq. phase at -20 to 130 deg.C in a solvent (e.g. H₂O, acetic acids, ketones, pyridine, benzene and toluene) with oxidising agent (e.g. chromic acid, permanganates, nitric acid, ozone, MnO₂, H₂SO₄, chlorine-contg. water, hydrogen peroxide, peroxides, ferric salts, perhalogenates, O₂ depending on reaction conditions) ppt. in the presence of catalyst.

(I) have an aroma more pleasant than that of ethylidene norbornanone. (6pp)



FUKO ★ D23 69047 D/38 ★ J5 6098-297
Highly stable fat or oil prodn. - by mixing molten L-ascorbic acid ester-lecithin into fat or oil

FUJIOIL KK 07.01.80-JP-000732

(D13) (07.08.81) C11b-05

07.01.80 as 000732 (126NS)

Process comprises melting a mixt. consisting of lecithin with L-ascorbic acid ester and heating and dissolving the melted prod. in a fat (or oil). Pref. 0.5-10 pt. wt. L-ascorbic acid ester are used per 100 pt. wt. lecithin. Pref. the heat-melting temp. of said

lecithin/L-ascorbic acid ester is 110-130 deg.C. Pref. the dissolving temp. of the hot-melted product is less than 80 (less than 60) deg.C. Pref. the amt. of hot-melted mixt. used w.r.t. a fat (or oil) is up to 5 wt.%. The prod. has superior oxidn. stability and taste, and is suitable as a coating fat (or oil) for foods such as rice cake or snack, etc.

In an example, 2 g stearic acid ester of L-ascorbic acid was added to 100 g soya lecithin and the ester was completely dissolved in the soya lecithin by heating to 120 deg.C. 15 g of the mixt. was melted and added to 1 kg refined rape seed oil heated at ca. 50 deg.C, a highly stable oil was obtd. The oxidn. stability of the product was by 40 hr longer compared to the rape seed oil alone. It was not discoloured and the taste was excellent. (4pp)

MACA- ★ D23 68558 D/38 ★ J5 6065-813
Perfume for food, dental paste, drugs, etc. - contg. glycyrrhetine and menthol

MACANDREWS & FORBES 17.10.79-US-086014
B05 E15 (D11 D21) (03.06.81) A61k-07/46

15.10.80 as 143084 (22KB)

Perfuming agent comprises ammonised glycyrrhetine and menthol. The ratio of the two components is 100:1 to 50:50 by weight. The perfuming agent is used in cookies, dental paste, drugs, etc.

In an example, 2.0 wt.% glycyrrhetine ammonium, 8.0 wt.% menthol and 90.0 wt.% propylene glycol are stirred under heating at 100 deg.C to give homogeneous soln. This soln. is used as base of perfuming agent. (4pp)

TAIY- D23 30296 C/17 = J8 1036-176
Perfume cpd. - having fragrance similar to musk and sandalwood

TAIYOKORYOKK 08.09.78-JP-109791
E15 (22.08.81) *J55036-423 A61k-07/46 C07c-29/14 C07c-33/12

08.09.78 as 109791 (78AT)

Cpd. of formula (I), and perfume compsn. contg. it, are claimed. (I) is produced by reducing aldehyde group of alpha, beta unsatd. cpd. of formula (II) selectively. Reducing agent may be aluminium alcoholate or metal hydride.

(I) has fragrance like musk and sandalwood. (J55036423) (4pp)



HERS/ ★ D23 D/38 ★ NO 8000-189
Wax candle
HERSTAD O 28.01.80-NO-000189
(24.08.81) C11c

FRIT- D23 73016B/40 = US 4287-100
1,2,3-Tetrahydro-benzyl carboxylate ester(s) - useful as fragrances having floral, woody and/or fruity notes in perfumes and cosmetics

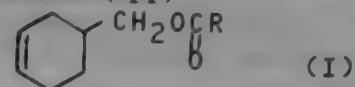
FRITZSCHE DODGE & O 14.03.78-US-886401

E15 (E14) (01.09.81) *NL7902-042 A61k-07/46

14.03.78 as 886401 (924MR)

Fragrance compsn. contains 0.1-60 wt.% of one or more cyclohexene cpds. of formula (I) and a fragrance carrier. In (I) R is H, opt. satd. 1-6C aliphatic hydrocarbon and when unsatd. contains only one double bond, phenyl or cyclopentyl, Pref. R is propyl, isovaleryl, hexyl, phenyl, ethyl, isobutyl, methyl, crotyl, seneciyl or cyclopentyl.

The esters of 1,2,3,6-tetrahydrobenzyl alcohol exhibit powerful odourous notes such as floral, woody and fruity notes. They are prepd. by reacting 1,2,3,6-tetrahydrobenzyl alcohol with an appropriate organic acid. (8pp)



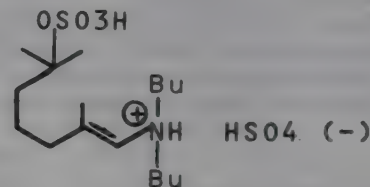
INFL ★ D23 69700 D/38 ★ US 4287-133
2,6-Di:methyl-1,5-heptadienyl-di:buten-amine deriv. - useful for hydrolysis to 2,6-di:methyl-6-hydroxy heptenal

INT FLAVORS & FRAGR INC 17.07.80-US-169900 (17.11.78-US-961685)

E16 (01.09.81) C07c-141/10

17.07.80 as 169900 Div. ex. 4242281 (+ 27.6.79, 26.10.79-US-052355, 088519) (1248AS)

2,6-Dimethyl-1,5-heptadienyldibutylamine deriv. of formula (I), is new. Cpds. (I) is hydrolysed with NaOH to 2,6-dimethyl-6-hydroxyheptanal which is useful in foodstuffs, tobaccos, perfumes, perfumed articles, etc. to augment the aroma as described in US4242281 (Der. 03617D/03). (21pp)



D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

LESI ★ D25 67983 D/38 ★ BE -888-678
Textile softener concentrate contg. cationic softener - and nonionic emulsifier and stabiliser, dilutable with tap water

LESIEUR COTELLE SA 14.05.80-FR-010905

A97 E19 F06 (28.08.81) C11d

05.05.81 as 888678 (510DJ)

A softener for textile fibres consists of (a) 10-30 wt.% of cationic softeners, (b) at least 1 nonionic agent acting as emulsifier and stabiliser for (a), and opt. (c) additives such as perfumes, perfume emulsifiers, dyes, optical brighteners, preservatives and solvents.

The compsn. is a viscous concentrate which can be packaged in a flexible plastic container which can be filled and emptied easily. The compsn. is stable at washing machine temps., and can be kept for 1-2 months in reservoirs in industrial or domestic washing machines, or can be stored at down to -25 deg. C. It can be diluted with cold tap water to a homogeneous soln. of viscosity 40-80 mPa.s. Use of demineralised water is not necessary. (16pp)

BABW ★ D25 68192 D/38 ★ EP -35-100
Rotary drum converting ortho:phosphate(s) into tri:poly:phosphate(s) - has increased diameter in last of separate treatment zones

BABCOCK-BSH AG 01.03.80-DE-007988

E34 Q77 (09.09.81) B01j-19/28 C01b-25/41 F27b-07

15.01.81 as 100256 (1480BZ) (G) DS1181184 DS2121885 DS2011336 DE2338507 DE2037332 FR1327309 DE2603072 DE1792380 E(AT DE GB SE)

A rotary drum through which spray-dried alkali orthophosphates pass together with hot gases to aid conversion into tripolyphosphate, partic. the phase II crystalline modification, is divided into a number of zones. The main zones are the input zone (A) contg. feeder blades, an intermediate zone (B) with trickle injects, and a final zone (E) with turning strips. To reduce gas speed and hence increase the time available for conversion of any remaining phase I crystals, the final zone is of increased dia. The intermediate zone can be followed by a delay zone (C), and a transition zone (D) with turning and/or trickle inserts may be included.

OTHER DETERGENTS -p 77 Week D38
orthophosphate obtd. from aq. solns. The proportion of phase II modification must be maximised for use in detergents. (14pp)

FARH ★ D25 68205 D/38 ★EP --35-137
Detergent compsn. builder combination - contg. hydroxylamine di:sulphonic acid, nitrido sulphonic acid and/or imido-sulphonic acid deriv. in addn. to phosphate and zeolite
HOECHST AG 03.03.80-DE-008054
E19 (09.09.81) C11d-01/12 C11d-03/08
11.02.81 as 100934 (200HM) (G) DS2545611 DS2412837 DE2632352 DE2222993 FR2271283 DE2423391 E(AT BE CH DE FR GB IT LI NL SE)
Detergent- and cleansing compsns. contain, by wt., 3-40% of at least one deriv. of (A) hydroxylamine -disulphonic acid, having formula
M'ON(SO3M)2,
(B) nitrido-sulphonic acid having formula
N(SO3M)3
or (C) imido-sulphonic acid having formula
M'N(SO3M)2
(where M' is H, Na, K or NH4 and M is Na, K or NH4), as detergent builder, in addn. to 2-20% of at least one tenside, 5-30% NaAl silicate, (I), and 5-24% alkali phosphate, (II), as combined detergent builders, and 30-80% detergent auxiliaries. Pref. compsns. contain a combination of cpds. (B) and (C), partic. a combination of, by wt., 10-30% (B) and 90-70% (C) or 10-30% (C) and 90-70% (B).
The combination of (A), (B) and (C) with (I) and (II) increases washing-power. (15pp)

HENK ★ D25 68223 D/38 ★EP --35-184
Dish-washing compsn. for machine use - contg. powdery or granulated surfactant-contg. soluble or dispersible component and granulated water-insoluble inorganic component
HENKEL KG AUF AKTIEN 27.02.80-DE-007320
E37 (09.09.81) C11d-03/12
20.02.81 as 101200 (200HM) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)
Detergent compsns. for use in dish washing machines consist of a granulated mixt. of (A) a powdered or granulated component contg. quickly water-soluble or -dispersible ingredients of standard dish-washing machine compsns. and (B) a granulated component of finely-divided, water-insoluble inorganic cpds. having particle size between dust fineness and 100millimicrons, esp. below 10. The granulates have grain-size 0.2-4 (0.5-2)mm and wet grain stability having half-value 1/4 to 3 and end-value no higher than 15 wt.% of grains having size 0.4mm (as determined by a method given in description, comprising grain-size reduction measurements in an agitated aq. suspension at 60 deg.C after 15- and 30 min.).
The compsns. clean hard surfaces, esp. cooking pots and baking dishes, and combine the chemical activity of (A) with the mechanical activity of (B). (24pp)

HENK ★ D25 68257 D/38 ★EP --35-263
Tert. amino gp.-contg. polyester and salt derivs. - prepd. by esterifying alkoxyated tert. amine with di:carboxylic acid and use as textile softener
HENKEL KG AUF AKTIEN 01.03.80-DE-007930
A23 F06 (A97) (09.09.81) C08g-63/68 D06m-15/52
28.02.81 as 101463 (200BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)
New tert. amino gp.-contg. polyesters, (A), and their salts with lower carboxylic- and inorganic acids, are prepd. by reacting a dicarboxylic acid having formula
HOOC-R3-COOH (I)
(where R3 is an aliphatic, aromatic or alicyclic opt. substd. 1-10C gp.) with an alkoxyated tert. amine having formula
H(O-CHR1-CH2)m-NR-(CH2-CHR2-O)nH (II)
(where R is an opt. satd. linear or branched 1-20 (6-20) C aliphatic gp.; R1 and R2 are H or Me and are opt. identical; and m and n are nos. 1-20, provided that the sum of m and n is 2-30 and the degree of polymerisation of the polyester is 2-50 esp. 10-20).
(A) and their salts are used as textile softeners in detergent and textile rinsing compsns. The treated textiles retain their absorption capacity. (A) can be removed without trace from the washed textiles. (A) are liqs. and dissolve in water without forming gels. (29pp)

CIBA ★ D25 68330 D/38 ★EP --35-470
Water-soluble aluminium or zinc phthalocyanine deriv. - substd. with quaternary ammonium gp.-contg. sulphonamide and used as photo-activator in textile treatment compsn.
CIBA GEIGY AG 29.02.80-CH-001624
E12 F06 (09.09.81) C09b-47/04 C11d-03/39 D06l-03/04
23.02.81 as 810056 (200AT) (G) EP---3371 EP---3149 GB1372035 GB1408144 FR2384882 FR2329746 J54145712 BR---7900 2.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Textile treatment compsns., for washing, rinsing and bleaching textiles, contain a cationic gp.-substd. water-soluble Al- or Zn phthalocyanine, as photo-bleaching agent, and cationic textile treatment agents, e.g. cationic tensides, softeners, antistatics, optical bleaching agents and/or anti-microbial components.

New phthalocyanine cpds. have formula
(PC)-(SO2X1-R1-X)vA-w (I)
or (II), (R3O)a-(PC)-(SO2X1-R1-X)v
where PC is the unsubstd. Zn- or Al phthalocyanine ring system; v is 1-4; R1 is opt. branched 1-8C alkylene or 1,8- or 1,4-phenylene. X1 is NH or N-alkyl. X is a gp. having formula -NR2R3R4, (III), (IV) or -COCH2-NR2R3R4. R2 and R3 are opt. substd. 1-6C alkyl; R4 is opt. substd. 1-6C alkyl, 3-7C cycloalkyl or NR6R7. R6 and R7 are H or opt. substd. alkyl. m is 1-6; A completes an aromatic 5- to 7-membered N-heterocycle, which opt. contains 1 or 2 more N atoms as ring-members and opt. carries different substituents. B completes a satd. 5- to 7-membered N heterocycle, opt. contg. another 1-2 N-, O- and/or S atoms as ring-members and opt. carrying further substituents. A- is an (in)organic anion; w equals v in case of monovalent anions A- and is no higher than v in the case of polyvalent anions, and A-w must compensate the positive charge. The phthalocyanine ring system can contain further water-solubilising gps., e.g. sulpo gps., and all substituents are bonded to the Ph ring of the phthalocyanine ring system.

In (II), R3O is a non-ionic substituent, esp. F, Cl, Br, I or CN; a is 0.1-4.

The photo-bleaching effect of the photo-bleaching agent is unaffected by the cationic textile treatment compsn. and vice-versa. The photo-bleaching agent facilitates stain removal from fabrics and prevents dye transfer between individual fabrics. (73pp)



EKAA- ★ D25 68335 D/38 ★EP --35-478
Anti-redeposition agent for preventing greying of polyester - is multifunctional ester contg. free hydroxy and free carboxy gps.

EKA AB 05.03.80-SE-001698
E19 (09.09.81) C07c-67/08 C07c-69/07 C11d-01/72
12.01.81 as 850004 (1251HM) (E) DE2846984 GB1563808 FR2348964 GB1575007 DE2717300 FR2348963 US4138352 GB1505798 DE2301728 DE2834073 E(AT BE CH DE FR GB IT LI NL SE)
Antiredeposition agent is an ester (I) formed from one or more (cyclo)aliphatic or aromatic di-, tri- or tetra-valent carboxylic acid (II) and one or more (cyclo)aliphatic di-, tri- or tetra-valent alcohols (III). (I) contains 1-6(1-3) esterified acid units, and the ratio of free hydroxy gps. to free carboxy gps. is 2-30(5-15). Esp. (I) has 1-3(2-3) free hydroxy and 0.1-0.5(0.2-0.4) free carboxy per mole. (II) is esp. phthalic anhydride, isophthalic, adipic, maleic and trimellitic acids, and (III) is esp. (di)ethylene glycol or 1,2-propanediol.

(I) is pref. incorporated into detergents at 0.1-2%, e.g. by adding to the slurry before spray-drying; spraying, as a melt or soln., onto the dry detergent; or by adsorption onto a carrier.

(I) are added to detergents to prevent greying. They are as effective on polyester as carboxymethylcellulose is on cotton. (12pp)

AIRW- ★ D25 68341 D/38 ★FR 2401-988
Carpet cleaning and treating powder compsn. - contg. adsorbent powder and per:chloroethylene opt. with ether alcohol

AIRWICK AG 01.09.78-FR-025314 (02.09.77-US-830238)
E16 (04.04.79) C11d-17/06
01.09.78 as 025314 (597HM)
Compsn. comprises 40-85% of an adsorbent powder and 15-60% of a solvent selected from parchlorethylene and 3-10:1 perchlorethylene/ether-alcohol mixts. the latter opt. also mixed with water. Carpets are cleaned and giving an antistatic and anti-staining treatment by spreading 10-15 gm/sq.m of powder on the carpet using a wet cloth. After a few minutes contact the powder is removed by suction or brushing.

Pref. ether-alcohols are glycol mono methyl, ethyl and butyl others; propylene and diprpylene glycol monomethyl ethers, and diethyleneglycol mono methyl and ethyl ethers. Pref. amts. of water are less than 5% and 5-10%. The method is simple and effective, not requiring any special appts. It is also quick and avoids the disadvantages of wetting the carpet. (17pp)

ROUC/ ★ D25 68368 D/38 ★FR 2475-518
Oxidising prod. contg. sodium peroxide used for bleaching etc. - stabilised with sodium para-hydroxybenzoate and carbonate

ROUCHOUSE G 12.02.80-FR-003330
E12 H01 Q31 (E34) (14.08.81) B65b-01 C01b-13/08 C07c-65/03 C11d-03/10
12.02.80 as 003330 (597AS)
The prod. may be used e.g. as bleaching agent in washing prods.

by adjusting the aq. hypochlorite soln. to pH 12-13.5, then adding a premix of (I) and RABNO (R is straight chain alkyl with more than 55% as 11-13C; AB are Me, or NAB is morpholine).

Inexpensive (I) impart a woody, piney, herbaceous aroma to stable aq. hypochlorite solns. (17pp)

LIOY D25 34645 D/20 = US 4287-101
Enzyme-contg. detergent compsn. for textile washing - contg. olefin sulphonate(s), anionic surfactant(s) and pyrophosphate(s) in specified ratio

LION FAT & OIL KK 29.10.79-JP-139478
(01.09.81) *DE3012-145 C11d-03/06

27.03.80 as 134453 (924MR)

Enzyme-contg. detergent compsn. comprises (I)(a) at least one 10-20C alpha-olefin sulphonate, (b) at least one anionic surfactant having SO₃ or SO₄ gp. other than the olefin sulphonate, and (c) at least one Na or K pyrophosphate and (II) at least one enzyme selected from proteases, amylases and lipases.

The total amt. of components (a), (b) and (c) is at least 25 wt.% based on total wt. of compsn. The wt. ratio of (a):(b):(c) is within the area enclosed by the points A(a:b:c = 80:0:20), B(a:b:c = 35:40:25), C(a:b:c = 20:40:40) and D(a:b:c = 50:0:45) defined in a triangular diagram. Pref. the enzyme is at least one proteolytic enzyme derived from bacteria. Pref. the compsn. has an enzyme activity of 1-40 Anson units/1 kg. of compsn.

The compsn. has good detergency esp. against soiled spots in fabrics or cloths, derived from a combination of sebum, sweat and fine dust. (7pp)

LIOY D25 30999 D/18 = US 4287-102
Cleaning compsn. contg. olefin sulphonate salt and amine oxide - at specific wt. ratio, useful as shampoo etc.

LION FAT & OIL KK 11.10.79-JP-131198

E19 (01.09.81) *DE3011-017 C11d-01/14

19.03.80 as 131636 (974HM)

Novel detergent compsns. comprise at least one water-soluble salt of a 12-16C olefin sulphonic acid (I) and at least one tert. amine oxide (II). (II) is of formula NR₁R₂R₃O, where R₁ is 10-14C alkyl and R₂ and R₃ are each 1-3C alkyl or hydroxyalkyl.

(I) and (II) are each at 2-20 wt.% of the concn. and are at a mol. ratio of 1.5-0.5:1 resp. The compsns. give a pH of 7.3-8.0 in 0.2 wt.% aq. soln. Pref. at least 50 wt.% of (I) is a salt of a 14C acid. Pref. at least 90 wt.% of (II) is a tert. amine oxide having a 12C alkyl gp. Pref. (I) and (II) total 6-30 wt.% of the compsn.

Compsns. are suitable for washing vegetables, dishes and human hair. (5pp)

See Also

D15 NL 167700 D21 J5 6097532

- *AAZI= 26.02.79 AS AZERB INORGAN PH D15 E19 J01 *SU -791-616
Removal of chlorinated organic cpds. from waste water - 69326D/38
- ABBO 03.03.80 ABBOTT LABORATORIES B04 D16 S03 = BE -887-771
Stabilising substrate-peroxide reaction prods. - 66594D/37
- *ABHE= 27.04.79 AS BELO HEAT MASS D15 *SU -791-648
Industrial and domestic sewage hydro-transport and treatment - 69346D/38
- AEDE- 13.04.79 AE DEV CORP B07 C03 D21 G02 (D25) = DK 8005-312
Dispensable water-in-air suspensions - 79341C/45
- AGEN 14.10.78 AGENCY OF IND SCI TECH D15 E33 J01 M25 = J8 1035-957
Collection of magnesium ions in aq. soln. - 39253C/22
- AGEN 14.10.78 AGENCY OF IND SCI TECH D15 = J8 1035-958
Simultaneous removal of ammonia and organic material from effluent - 39284C/22
- *AGEN 07.01.80 AGENCY OF IND SCI TECH A96 B04 D22 (A12 B07) *J5 6097-457
Anticoagulant material - 68920D/38
- *AGMI= 13.03.78 AS GEOR MINE MECH D15 J01 *SU -791-415
Removal of organic impurity from waste water - 69280D/38
- *AGRI- 11.05.77 AGRICULTURAL BY-PRO D15 J01 *GB 1597-966
Scrubbing foul air with oxygenated water - 68412D/38
- *AGRI= 03.08.79 AGRIC ELECTRIF RES C03 D13 *SU -793-555
Animal feedstuffs prodn. - 69524D/38
- AIDA/ 05.09.77 AIDA K B05 D16 = CA 1105-860
Fermentative prodn. of coenzyme/Q - 22325B/12
- *AIRW- 02.09.77 AIRWICK AG D25 E16 *FR 2401-988
Carpet cleaning and treating powder compsn. - 68341D/38
- AJIN 11.03.77 AJINOMOTO CO INC C03 D16 = GB 1598-231
Fungicide contg. Bacileucine-A or -B or its complex - 80900A/45
- *AJIN 28.12.79 AJINOMOTO KK C03 D13 *J5 6096-669
Animal feed for pigs, cows etc. - 68764D/38
- *AJIN 29.12.79 AJINOMOTO KK A97 D25 E14 *J5 6097-241
2,4,6-Triisopropyl:phenol-alkylene oxide adduct - 68883D/38
- ALBR 27.07.76 ALBRIGHT & WILSON LTD C04 D13 E37 (C03) = CA 1105-672
Phosphate salts for use as fertilisers - 08289A/05
- ALFA 06.11.79 ALFA-LAVAL AB D12 = DK 8004-697
Fish meal and oil process heat exchanger - 59868D/33
- ALKU 28.12.79 AKZO NV D17 = J5 6097-540
Regenerating sorbents with aq. alkaline soln. contg. sugar - 55414D/31
- *ALLM 31.01.80 ASEA-ATOM AB A91 D15 K05 *SE 8000-757
Ion-exchange resins for use in nuclear reactors - D/38
- ALTE- 15.06.77 ALTERNATIVE PIONEER D14 = GB 1597-879
Food drying cabinet with fan circulation of hot air - 02169B/02
- ALZA 04.02.80 ALZA CORP B07 D22 = US 4286-592
Sustained-release bandages - 60766D/34
- AMCY 27.04.73 AMERICAN CYANAMID CO B04 C03 D16 (D13) = NL -167-594
Isolation of antibiotic AV-290 from Streptomyces candidus - 79238V/46
- ANDC- 07.02.75 ANDCO IND INC D15 J03 (J01) = CA 1105-880
Electrochemical purificn of industrial effluent - 50060X/27
- ANDO- 11.06.79 ANDO SCREEN SEISAKU D15 = US 4287-064
Filter for sepg. solids and water - 14694D/09
- ANIS 21.06.72 ANIC SPA D25 E12 = SU -791-224
Alkali metal alkyl-sulphonate prepn. - 80866U/32
- *ANTO/ 12.02.80 ANTONIR D16 *FR 2475-571
Appts. producing bio:gas by organic waste anaerobic fermentation - 68380D/38
- AQOR 07.08.70 ATO CHIMIE D25 E17 H08 = SU -791-225
Sepn of sulphonic acids - 11212T/07
- *ARAK 28.12.79 ARAKAWA KAGAKU KOGYO A14 D15 F09 (A97) *J5 6095-906
Amphoteric copolymer mfr. - 68639D/38
- ARCH- 11.04.79 ARCHER R JR INC A97 D18 G03 (A81) = CS 8002-424
Tipping paper for air Ventilated cigarette - 79202C/45
- *ASBI= 23.03.79 AS USSR BIOLOG APPT D15 T06 *SU -791-633
Sewage biochemical treatment automatic control appts. - 69336D/38
- ASHL- 09.11.79 ASHLAND FOOD TECHN A97 D12 = DK 8004-737
Skinless sausages formed in reusable casing - 38532D/22
- *ASTL/ 21.04.76 ASTLE T W D16 S05 (S03) *US 4287-301
Automatic streaking of agar plates - 69772D/38
- *AUCO= 04.04.79 AS UKR COLLOID CHEM D15 J07 *SU -791-639
Purificn. of waste water from textile industry - 69339D/38
- *AUSS= 16.02.79 AS UKR S SEA BIOLOG D15 H05 J01 *SU -791-606
Oil-contg. water and effluent bio-purificn. appts. - 69320D/38
- *AXEL/ 25.02.80 AXEL R B04 D16 *WP 8102-425
Eucaryotic cells co:transformed with DNA linked to promoter - 69827D/38
- *AXEL/ 25.02.80 AXEL R B04 D16 *WP 8102-426
Insertion of DNA into eucaryotic cells by co:transformation etc. - 69828D/38
- *BABW 01.03.80 BABCOCK-BSH AG D25 E34 *EP --35-100
Rotary drum converting ortho:phosphate(s) into tri:poly:phosphate(s) - 68192D/38
- BADI 09.08.76 BASF AG B05 C03 D13 E24 (D21) = CA 1105-875
Electrochemical prepn. of symmetric carotenoid(s) - 12264A/07
- BADI 10.03.77 BASF AG A14 D22 (A97) = GB 1598-154
Water-soluble polyacrylic acid iodine complexes prepn. - 00100A/01
- BADI 15.12.77 BASF AG D23 E17 = EP G002-498
Hydroxy-citronellol prepn. by hydrating citronellol - 47300B/26
- BADI 16.02.80 BASF AG A60 D18 E21 F09 = DE 3005-940
Opt. metallised tri:azo leather dyes - 66310D/37
- BADI 22.02.80 BASF AG A96 B04 D21 (A14 B07) = EP --35-142
Micronised crosslinked, insoluble PVP as suspension agent - 64318D/36
- *BADI 29.02.80 BASF AG D18 E21 F06 *EP --35-172
Dyeing fleece wool with min. dyeing or leather - 68217D/38
- *BASH= 26.02.79 BASHKIR PETROL IND D22 E13 H01 (D15) *SU -791-620
Sulphate-reducing bacteria growth prevention - 69327D/38
- *BASH= 26.04.79 BASHKIR PETROL IND D22 E12 H01 (D15) *SU -791-621
Sulphate-reducing bacteria growth prevention - 69328D/38
- BATT 10.06.77 BATTELLE-INSTITUT EV C03 D13 = EP G006-856
Carbohydrate based ruminant feedstuff - 89608A/49
- BAUL 10.12.79 BAUSCH & LOMB INC A96 D22 (A26) = EP --35-080
Hydrophilic, transparent, soft contact lens - 28973D/16
- BAUM- 30.01.80 BAUMGARTNER PAPIERS A35 D18 F06 (A88) = SE 8006-010
Plasticiser treatment of rope of filter fibres - 57400D/32
- *BAXT 26.10.78 BAXTER TRAVENOL LAB A96 D22 E17 (A23) *US 4286-597
Storing blood in flexible chlorine-free plastic containers - 69568D/38
- BAXT 01.11.79 BAXTER TRAVENOL LAB B07 D22 = BR 8008-901
Preparing sterile intravenous feed for hyperalimentation of patient - 15658D/10
- BAXT 28.01.80 BAXTER TRAVENOL LABS INC B04 D16 = US 4287-180
Prodn. of activated prothrombin complex concentrates - 62289D/34
- BEAU- 03.03.80 BEAUDREY E & CIE D15 = GB 2070-956
Filter for industrial waters - 51687D/29
- BECT 02.04.79 BECTON DICKINSON CO D16 = US 4287-306
Article for forming anaerobic atmosphere - 77446C/44
- BENC 13.11.69 BENCKISER-KNAPSACK GMBH D21 E34 = NL -167-657
Finely divided maddrell's salt prepn - 35988S/21
- BENC 13.11.69 BENCKISER-KNAPSACK GMBH D21 E34 = NL -167-657
Finely divided maddrell's salt prepn - 35988S/21
- BENI- 16.07.79 BENIER BV D11 = US 4286-939
Dough balling machine with adjustable ball shells - 10971D/07
- BEWA- 17.05.77 INST BEWARING VERWE D17 E13 = CA 1105-457
Xylose prodn. from annual plant residues e.g. straw - 84084A/47
- BIAL- 14.03.77 BIALETTI R & C SPA D11 = CA 1105-776
Domestic dough mixer - 29339B/15
- *BIOC- 28.02.80 BIOCELL SPA B07 D23 (D13 D21) *EP --35-298
Solvent fractionation of olive oil stearin - 68274D/38
- *BIOL- 04.03.80 BIOLABOR BRACHMAN W D13 *DE 3008-171
Nutritional table salt prepn. - 68128D/38
- BIOR- 15.03.79 BIO RES CENT KK D16 E17 #CA 1105-862
Microbiological prepn. of mono and/or di:carboxylic acids - 45675B/25
- BIOS- 26.12.79 BIOSPHERICS INC B04 D16 K08 = DE 3048-852
Radio:respirometric assay device contg. labelled substrate - 50317D/28
- BIOT- 23.03.79 GES BIOTECH FORSCH D16 E13 H01 #US 4286-660
Oil extrn. by flooding with water - 61639B/34
- BIOT- 01.05.79 BIOTEKNISK INST D13 J04 S03 (D16) = EP --35-013
Prophylactic determination of food putrefaction - 86357C/48
- BIOT= 09.11.79 BIOTECHN RES INST D16 #DK 7904-755
Microorganism cultivation reactor - 40369D/23
- *BIZE/ 08.05.79 BIZET A D22 *FR 2475-417
Filter to purify cadaveric gases from metal coffin - 68357D/38
- *BIZE/ 03.06.80 BIZET A D22 *FR 2475-391
Filter to purify cadaveric exhaust gas from metal coffin - 68351D/38
- BOEF 14.02.79 BOEHRINGER MANNHEIM GMBH B04 D16 (S05) = DD -149-121
Diagnostic compsn. for de'tecting enzymes in body fluid - 64548C/37
- *BOEF 29.02.80 BOEHRINGER MANNHEIM GMBH A96 B04 D16 S03 *EP --35-211
Turbidimetric determination of beta-lipoprotein - 68239D/38
- BOEH 07.01.77 BOEHRINGER INGELHEIM D13 E17 = GB 1598-253
Stable buffered aq. food acid solns. - 19762A/11
- BROD/ 27.03.79 BRODELIUS P A97 B04 D16 E19 (B05) = DK 8005-017
Immobilised enzyme conversion of alpha-aminoacid to alpha-keto:acid - 75296C/42
- BRPE 23.02.78 BRITISH PETROLEUM LTD D15 H05 #CA 1105-395
Oil removal from oily sludge - 63421A/36
- BRTA 16.05.73 BRIT AMER TOBACCO LTD A97 D18 = NL -167-745
Cigarette filter tip with incompatible additive - 59824V/34
- BRTA 13.11.79 BRIT AMER TOBACCO LTD D18 E14 J01 = DK 8004-815
Filter for removing nitric oxide, esp. from tobacco smoke - 21478D/13
- *BRYA/ 15.02.80 BRYANT B J B04 C03 D16 S03 *BR 8001-254
Mono-specific antibodies prodn. - D/38
- *BUDB- 25.08.76 BUDAPESTI BORIPARI A97 D18 *HU T020-624
Coating pigskin with reactive binder - D/38
- CALG 12.12.77 CALGON CORP D15 E16 M14 (E36) = CA 1105-695
Steam condensate corrosion inhibiting system - 47540B/26
- CALH- 12.02.80 LA CALHENE D16 J04 K07 S03 (S05) = FR 2475-679
Safety device for ventilation and filtration circuit - 62676D/35
- CALO- 13.11.79 CALOR AGRICULTURE R C03 D13 E12 = DK 8004-461
Solidified, fermented, ammonia-treated condensed milk - 38424D/22

CARL

- CARL 13.02.78 CINCINNATI MILLING A97 D25 E19 = NL-167-723
Washing agents contg. skin softener - 45212B/24
- CARN-01.12.77 CARNATION CO A97 D12 = CA 1105-312
Processed meat prod. contg. acidulant - 32463D/18
- *CARS-08.02.80 CARSON PROD CO D21 E19 *FR 2475-393
Hair setting process using compsn. contg. guanidine hydroxide - 68352D/38
- *CART/26.02.80 CARTER A H D21 *EP--35-040
Removal of plaque from teeth - 68175D/38
- CASO 30.01.80 SEARLE G D & CO B04 D16 E14 (B05 D13) = SE 8100-238
Synthetic gene contg. repeating codon sequence - 42123D/24
- *CEPA 26.02.79 CELLULOSE PAPER IND RES A97 D15 F09 *SU -791-656
Treating cellulose sulphate prodn. waste water sediment - 69351D/38
- CEVA-12.02.79 SOC CEVA SA C03 D13 (D16) = DD-149-015
Ensilage using added cellulase(s) - 46248C/27
- *CGRR 04.03.80 CGR MEV D14 K08 X14 (X25) *EP--35-445
Linear accelerator for charged particles - 68320D/38
- *CHAT/08.02.80 CHATELAIN M D16 *FR 2475-524
Digester to produce methane gas from organic waste - 68371D/38
- *CHEM-30.01.80 CHEMIMAS VEGYIGEP C03 D13 *HU T020-489
Processing tropical plants, esp. cassava leaves - D/38
- *CHEM-12.02.80 VEB CHEMIEANLAGEN L D16 H04 (D13) *DD -149-080
Two/step single-cell protein prodn. - 68047D/38
- *CHEM-12.02.80 VEB CHEMIEANLAGEN L D16 H04 (D13) *DD -149-081
Two/step single-cell protein prodn. - 68048D/38
- CHEO 26.12.79 CHESEBROUGH PONDS INC D21 E34 (E36) = DE 3048-124
Improved cold waving or straightening of hair - 52180D/29
- *CHIN 13.07.78 CHINOIN GYOGYSZER C03 D13 *HU T020-491
Water-resistant, protein- and carbohydrate-contg. animal feedstuffs - D/38
- *CHIY 29.12.79 CHIYODA CHEM ENG CO D22 L02 *J5 6098-280
Deodorising and strengthening water-contg. soil - 69044D/38
- CIBA 18.12.79 CIBA GEIGY AG C02 D15 = J5 6097-204
Algicide and bactericide treatment of water e.g. in swimming pools - 55455D/31
- *CIBA 29.02.80 CIBA GEIGY AG D25 E12 F06 *EP--35-470
Water-soluble aluminium or zinc phthalocyanine deriv. - 68330D/38
- *CILI-26.10.79 CIL INC D15 *US 4287-070
Long vertical shaft bio-reactor - 69670D/38
- *CIMB-08.02.80 OFF CIMBALI GIUSEPP D15 *FR 2475-520
Water softening filter esp. for domestic coffee making machines - 68370D/38
- CITI 22.08.77 CITIES SERVICE CO C04 D23 E17 #CA 1105-349
Defoamer for high strength acid media - 03966A/02
- CJBD-23.08.72 CJB DEVELOPMENTS D15 J01 = J8 1035-892
Selective adsorption fluid mixture fractionation - 17932V/10
- COLG 09.08.76 COLGATE PALMOLIVE CO D22 F07 = CA 1105-689
Disposable sanitary towel or diaper - 90087Y/51
- COLG 17.08.76 COLGATE PALMOLIVE CO D25 E33 (E19) = CA 1105-347
Agglomerated insoluble detergent adjuvant contg. a zeolite - 90111Y/51
- COLG 28.03.77 COLGATE PALMOLIVE CO A60 D25 E11 F06 (A23) = CA 1105-659
Antistatic textile softening compsn. esp. for nylon - 55126A/31
- COLG 24.08.77 COLGATE PALMOLIVE CO A96 B06 D21 E37 = CA 1105-390
Heat releasing, two-tone flavoured dentifrice - 05992B/03
- COLG 17.12.79 COLGATE PALMOLIVE CO A96 D22 (A11) = J5 6097-450
Absorbent material used for medical dressings, hygiene etc. - 30825D/18
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = DE 3046-770
Dentifrice compsns. based on aq. sorbitol - 53443D/30
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = J5 6097-216
Dentifrices showing reduced tendency to dry out - 30831D/18
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = J5 6097-217
Dentifrice compsns. based on aq. sorbitol - 53443D/30
- COLG 20.12.79 COLGATE PALMOLIVE CO A96 D22 = DE 3046-277
Absorbent pad for immobilising liquids - 34324D/19
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = NO 8100-323
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = NO 8100-324
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di-phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = SE 8100-174
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = SE 8100-554
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di-phosphate - 42128D/24
- *COMB-28.02.80 COMBE INC D21 E19 (E37) *EP--35-364
Aq. compsn. for darkening keratin material - 68299D/38
- *COMI-07.02.80 COMIA FAO SA D13 *FR 2475-350
Grain drying chamber with horizontal air distribution channels - 68342D/38
- *CONF-19.09.78 CONFINEMENT INVESTO D15 *US 4287-060
Aeration of solid biological waste - 69666D/38
- CONN/09.12.76 CONNELLY R F D15 J01 = CA 1105-842
Food preservative compsn. - 55760A/31
- CORP 01.09.77 CPC INTERNATIONAL INC D16 (D17) = CA 1105-858
Fixing gluco-amylase on cationic colloidal silica - 01975B/02
- CORP 09.11.79 CPC INTERNATIONAL INC D17 = DK 8004-431
Continuous starch slurry prepn. - 38305D/22
- CORP 30.01.80 CPC INTERNATIONAL INC D13 = NO 8100-312
Cheese spreads prodn. with good shelf life - 60776D/34
- *CORP 03.06.80 CPC INTERNATIONAL INC D17 E13 (D16) *BE -888-672
Prepn. of fructose polymers, glucose and fructose from saccharose - 67980D/38
- *CSIR 22.02.80 COMMONWEALTH SCIENT ORG B01 D16 (B05) *WP 8102-427
Aerobic fermentation of bile - 69829D/38
- *CULI/22.05.80 CULIK K B02 D16 *CS 8003-615
6-Amino-venicillanic acid prepn. - D/38
- DANJ/29.01.80 DANJUSHEVSKAYA N E C04 D22 E32 G02 #NO 8000-218
Copper (i) oxide stabilisation - 55254D/31
- *DAUC 27.12.79 DAIICHI SEIYAKU KK D13 *J5 6096-686
Food preservative compsn. - 68770D/38
- *DEAK 07.02.80 AKAD WISSENSCHAFT DDR B04 D16 H03 *DD -149-056
Crude oil removal by emulsification and biological degradation - 68036D/38
- DEGS 21.06.75 DEGUSSA AG A97 D22 = NL-167-595
Aq. iodophor soln. useful as disinfectant - 00223Y/01
- DEGS 26.02.80 DEGUSSA AG D25 E33 = DE 3007-123
Crystalline zeolite powder having given particle size prepn. - 66303D/37
- DEJI-06.08.77 DEJINT RES CO D13 = CA 1105-679
Selective extn. of a sol. component from granular material - 09979B/06
- DEUS 27.12.79 DEGESCH GMBH D13 #J5 6096-647
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- DIDI 09.12.69 DIDIER-WERKE AG D15 M12 = NL-167-734
Recycling and recovering rinsing water - 11910S/06
- DILU-14.11.73 DILUMELT SRL D14 J02 = NL-167-605
Dispersal of powdered solids in liquids - 34665W/21
- *DIMI/27.06.78 DIMITER S A94 D18 (A17) *US 4287-252
Low cost reconstituted leather product - 69751D/38
- *DNEP= 01.03.79 DNEPRODERZHINSK IND D15 E14 *SU -791-612
Purificn. of waste water from benzene prodn. - 69322D/38
- *DNEP= 11.03.79 DNEPRODERZHINSK IND D15 E14 *SU -791-614
Purificn. of waste water from benzene prodn. - 69324D/38
- *DNEP= 19.03.79 DNEPRODERZHINSK ENG D15 E14 *SU -791-613
Flotation-purification of waste water from benzene prodn. - 69323D/38
- *DNEP= 03.04.79 DNEPRODERZHINSK IND D15 E14 *SU -791-615
Flotation-purificn. of waste water from benzene prodn. - 69325D/38
- *DOLE/17.11.80 DOLEZALEK J D13 *CS 8007-796
Milk-based foodstuffs prodn. - D/38
- *DOLE/17.11.80 DOLEZALEK J D13 *CS 8007-797
Modified liq. or dried milk prodn. - D/38
- *DONS= 07.03.79 DONSK AGRIC INST A97 C03 D13 (D16) *SU -791-366
High nitrogen, additive for ruminant feedstuff prodn. - 69262D/38
- DOUW 11.09.67 DOUWE EGBERTS KON TABAKS B05 D13 E19 = NL -167-580
Flavouring method - 65183Z/00
- DOUW 12.01.77 DOUWE EGBERTS KON D13 J01 (D16) = CA 1105-827
Counterflow crystalliser for freeze concentrating aq. solns. - 51928A/29
- *DREW 18.10.79 DREW CHEMICAL CORP D15 E36 (E19) *US 4287-072
Treatment of cationic or anionic exchange resins - 69672D/38
- DUIN 26.07.78 DUPHAR INT RES BV C03 D15 = US 4286-983
Algicidal compsns. contg. di-amine cpds. - 11488C/07
- *DUNG-05.02.80 DUNGUNGSFORS LEIPZIG A88 D16 *DD -149-025
Liquid pig manure preparation - 68022D/38
- *DYNA-05.09.79 DYNATECH AG D16 J04 S03 *EP--25-350
Apts. for measuring chemical or biochemical luminescent reactions - 68173D/38
- *EART-29.12.79 EARTH SEIYAKU KK B05 C03 D21 E14 (D22) *J5 6097-205
Insect repellent effective against e.g. ants and slugs - 68868D/38
- *EGYE 20.02.80 EGYT GYOGYSZERVEGYESZETI C03 D13 *HU T020-490
Prepn. of carbadox-contg. concentrates - D/38
- *EIRI/08.03.79 EIRIKSSON T D12 *CA 1105-663
Apparatus for squeezing roes from small fish - 68014D/38
- *EKAA-05.03.80 EKA AB D25 E19 *EP--35-478
Anti-redeposition agent for preventing greying of polyester - 68335D/38
- *EKSE-05.05.81 EKSELSE KONSTR WERK D16 E17 (D15) *BE -888-670
Liq. manure is heated in fermentation tank to produce methane - 67979D/38
- ELIL 23.02.68 ELI LILLY & CO B04 C03 D16 = NL-167-727
Antibiotic A204 coccidiostat, insecticide, acaricide, antimicrobial - 07877H/23
- ELIL 01.07.77 ELI LILLY & CO B04 D16 = CA 1105-403
Mfr. of Streptomyces protoplast which regenerates viable cells - 01894B/02
- ELIL 01.07.77 ELI LILLY & CO A97 B04 D16 = CA 1105-859

- *ELIL 30.12.78 ELI LILLY & CO B02 D16 *US 4287-302
16-Hydroxy- and/or N-de:methyl- antibiotic A23187 alkyl ester prepn. - 69773D/38
- ELIL 13.12.79 ELI LILLY & CO B04 D16 = J5 6097-295
Recovery of cyclic peptide antibiotics from solns. - 46414D/26
- ELIL 13.12.79 ELI LILLY & CO B02 C02 D22 = US 4287-120
Re-acylated derivs. of cyclic peptide antibiotics - 45990D/26
- *ENFO/ 05.03.80 ENFORSS O D16 J04 S03 *EP --35-480
Enzyme electrode using oxygen consuming enzymes - 68336D/38
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = FR 2475-522
Recovery of metals from low concn. aq. solns. - 60922D/34
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = FR 2475-523
Recovery of metals from low concn. aq. solns. - 60923D/34
- ENGH 12.02.80 ENGELHARD MINERALS CORP D15 J01 M25 = FR 2475-575
Recovery of precious metals from soln. - 62855D/35
- ENIE- 15.02.79 ENI ENTE NAZ IDROCA A97 B04 D16 = DD -149-075
Microporous products contg. active ingredient e.g. enzyme - 60793C/35
- ENIE- 01.02.80 ENI ENTE NAZ IDROCA D16 (D17) = NO 8100-306
Alpha-galactooxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- *ENIE- 01.02.80 ENI-ENTE NAZ IDROCA D16 (D17) *SE 8100-741
Alpha galactooxidase prodn. - D/38
- *ENIE- 22.02.80 ENI ENTE NAZ IDROCA D17 *BR 8100-989
Sepn. of glucose and fructose - D/38
- ERIC/ 27.11.79 ERICSSON M D16 #US 4286-730
Antibiotic wafer applicator - 41742C/24
- ESSO 10.03.80 EXXON RES & ENG CO A85 D15 J03 L03 (X16) = GB 2071-399
Electrochemical cells using non-selective membranes - 28954D/16
- ETHI 31.07.69 ETHICON INC A17 D22 F01 (A34 A96) = NL -167-596
Polypropylene suture thread for medical - 11368S/06
- EUGE- 15.12.70 EUGENE-GALLIA D21 E16 = NL -167-593
Hair colouring compns - 14480T/09
- *FABR 20.02.80 FABRE P SA B04 D16 *EP --35-429
Vaccine complex derived from ribosomal bacterial RNA - 68317D/38
- FARB 09.01.79 BAYER AG C02 D16 = US 4287-186
Antibiotic insecticide and acaricide compsns. - 51841C/30
- FARB 24.02.79 BAYER AG D15 J01 = EP G015-416
Modular block for osmotic sep. processes - 69833C/40
- FARB 21.05.79 BAYER AG A41 C04 D15 E14 = US 4287-069
Accelerating sedimentation in waste water treatment - 86751C/49
- FARB 26.02.80 BAYER AG D18 E21 F09 = EP --35-152
Highly soluble blue dis:azo dyes esp. for paper and leather - 66220D/37
- *FARB 05.03.80 BAYER AG D15 F09 J01 *EP --35-243
Flotation system and appts. - 68249D/38
- FARH 13.11.69 HOECHST AG D21 E34 = NL -167-657
Finely divided maddrell's salt prepn - 35988S/21
- FARH 27.07.76 HOECHST AG C03 D13 E35 = SU -791-257
Treating microbial cellular mass with ammonia and alcohol solvent - 08318A/05
- FARH 19.01.77 HOECHST AG B04 D16 = CA 1105-404
Alpha-amylase inhibitor for treating diabetes and obesity - 53463A/30
- FARH 05.08.77 HOECHST AG A97 D12 (A11 A14) = US 4287-217
Cellulose hydrate hose used as sausage skin - 33689B/18
- FARH 19.12.79 HOECHST AG C03 D13 E37 G01 (D21) = J5 6096-707
Finely dispersed, hardly soluble salt prodn. from phosphorus oxy-acid - 47983D/27
- FARH 15.02.80 HOECHST AG B04 C03 D13 (D16) = BR 8100-869
Free-flowing solids prodn. from salinomycin culture broth - 62503D/35
- FARH 15.02.80 HOECHST AG B04 C03 D13 (D16) = EP --35-125
Free-flowing solids prodn. from salinomycin culture broth - 62503D/35
- FARH 16.02.80 HOECHST AG B04 D16 = DE 3005-843
Microbiologically prepd. human interferon - 62879D/35
- FARH 16.02.80 HOECHST AG B04 D16 = GB 2071-108
Microbiologically produced interferon poly:peptide - 64373D/36
- FARH 23.02.80 HOECHST AG B02 D16 = DE 3006-889
Chromogenic cephalosporin cpds. for beta lactamase detection - 66320D/37
- *FARH 03.03.80 HOECHST AG D25 E19 *EP --35-137
Detergent compsn. builder combination - 68205D/38
- *FARK/ 18.04.80 FARKAS J D16 *CS 8002-728
Wine, fruit and similar distillates purificn. - D/38
- *FAUR/ 11.02.80 FAURE J M D16 J04 S03 *FR 2475-735
Analyser for liquid samples - 68398D/38
- *FEPU 10.05.78 FERR METAL EFFL PURIF D15 J01 *SU -791-641
Metallurgical gas purificn. water system scale formation inhibitor - 69341D/38
- FIND- 15.11.79 PROD FINDUS SA D14 = DK 8004-863
Machine to trim vegetables esp. brussels sprouts - 42334D/24
- FIRM 14.08.79 FIRMENICH SA D23 E15 = GB 2071-101
Tri:methyl-cyclopentenyl-ethyl- and -ethylidene cyclopentanol cpds. - 21406D/12
- FIRM 06.02.80 FIRMENICH SA D23 E13 = GB 2070-931
Seven pyridine cpds. used as perfume ingredients - 66429D/37
- FISH- 17.10.79 FISHER SCIENTIFIC C B04 D16 S03 (S05) = J5 6096-249
Immunological active cpd. tagged with a metallo:porphyrin - 40731D/23
- FJEL- 29.10.79 FJELDSSEND O A/S D15 J01 = BR 8008-892
Apparatus for magnetic treatment of flowing liquid - 36304D/20
- *FMCC 04.12.79 FMC CORP D13 *US 4287-058
Fruit juice sep. from slurry of pulp and seeds - 69665D/38
- *FMCC 13.02.80 FMC CORP D14 *BR 8100-856
Single file fruit feeder for collecting station - D/38
- *FMCC 13.02.80 FMC CORP D13 *BR 8100-858
Citrous fruit juice extraction - D/38
- *FMCC 13.02.80 FMC CORP D14 *BR 8100-859
Fruit feeder - D/38
- FORE- 06.04.79 FORENEDE BRYGGERIER A96 B04 D16 = DK 8005-202
Prepn. of peptide(s) - 77016C/43
- FORS- 20.02.76 FORSYTH DENTAL INFI B06 D21 = CA 1105-388
Preventing dental caries in newly erupted teeth - 25129A/13
- *FOSS- 19.02.80 FOSS ELECTRIC AS N C03 D13 J04 S03 *WP 8102-467
Quantitative determ. of two constituents of foodstuffs etc. - 69840D/38
- *FOVA- 16.03.79 FOVAROSICSATORNAZA C03 D15 *HU T020-479
Improving sandy soils by adding organic contg. layer - D/38
- *FRIN/ 08.02.80 FRINOT M D13 *FR 2475-360
Prepn. of butter flavoured with herbs or condiments - 68345D/38
- FRIT- 14.03.78 FRITZSCHE DODGE & O D23 E15 (E14) = US 4287-100
1,2,3-Tetra:hydro-benzyl carboxylate ester(s) - 73016B/40
- *FRIY 19.02.80 FRITO-LAY INC C03 D13 *US 4287-220
Free flowing solid compsn. contg. farinaceous waste prods. - 69741D/38
- *FROM- 07.02.80 FROMAGERIES BEL D13 *FR 2475-361
Prepn. of dairy prods., pref. cheese, using ultrafiltered retentate - 68346D/38
- *FUKO 07.01.80 FUJIOIL KK D23 (D13) *J5 6098-297
Highly stable fat or oil prodn. - 69047D/38
- *FUKU/ 28.12.79 FUKUMOTO S D11 *J5 6096-670
Additive for improving taste and nutritive quality of boiled rice - 68765D/38
- GALL- 05.10.76 GALLAHER LTD A97 D18 (A11) = US 4286-604
Tobacco substitute prepn. by viscose fibre pyrolysis - 27299A/15
- GENE 03.12.79 GENERAL ELECTRIC CO A96 B04 D21 E11 (A26 B05) = J5 6095-952
Aq. emulsions contg. cyclic polysiloxane - 44617D/25
- *GENE- 13.11.79 GENERIC INDS INC D21 M26 *J5 6069-343
Cobalt based dental alloy - 68558D/38
- *GENE- 28.02.80 GENENTECH INC B04 D16 *EP --35-454
Des:acetyl-thymosin alpha 1 with immunostimulant activity - 68324D/38
- GENO 01.10.79 GENERAL FOODS CORP D13 = CA 1105-309
Isolation of non-denatured proteins - 48044C/27
- *GENO 10.10.79 GENERAL FOODS CORP D13 *J5 6060-630
Carbonated drink prodn. from aq. liq. satd. with carbon di:oxide - 68548D/38
- GENO 18.10.79 GENERAL FOODS CORP D13 #BR 7909-047
Microporous soluble coffee of specified pore radius - 39997C/23
- GENO 13.11.79 GENERAL FOODS CORP D13 = DK 8004-442
Decaffeinated coffee blend prodn. - 23317D/13
- GENO 12.02.80 GENERAL FOODS CORP D13 = FR 2475-362
Prepn. of soluble coffee with reduced acid content - 62822D/35
- *GERZ/ 09.10.78 GERZON V M D15 T06 *SU -791-627
Prodn. process filtration water treatment control - 69330D/38
- *GFOO= 19.02.79 GEORG FOOD IND TECH D14 *SU -793-558
Mechanical processor for fruit - 69526D/38
- *GIPR= 26.06.78 GIPROVOSTOKNEFT D15 J04 *SU -791-611
Purifying petroleum-contg. waste water - 69321D/38
- GIVA 20.11.70 GIVAUDAN L & CIESA D13 E15 = J5 6097-218
Derivs of 8-mercaptop-menthane-3-ol - 35468T/22
- *GOAV- 08.02.80 GOAVEC SA D13 *FR 2475-354
Heat treatment vessel for milk prods. esp. thick cream - 68343D/38
- GORA/ 04.10.79 GORANSON B D12 = NO 8101-880
Appts. for disintegrating and mixing foodstuffs - 32554D/18
- *GORD/ 13.04.79 GORDASH YUT D15 *SU -791-631
Industrial waste water purificn. - 69334D/38
- GRAC 02.08.77 GRACE W R CO B02 D16 = CA 1105-861
Tetra:cyclic antitumour agent quadron - 87867A/49
- GREC 28.12.79 GREEN CROSS CORP B04 D16 = J5 6096-694
Myelo:peroxidase isolation from human myelogenic leukocytes - 49988D/28
- *GRUN/ 26.02.80 GRUNDMANN P D15 *DE 3007-075
Chemical seal water emergency desalination kit - 68083D/38
- *HAMJ- 28.01.80 HAMJERN A/S D12 *NO 8000-192
Processing slaughterhouse waste - D/38
- HARA/ 29.12.79 HARADA M D21 E19 = J5 6097-213
Stable permanent waving soln. - 52181D/29
- HAYB 23.01.73 HAYASHIBARA BIOCHEM A81 D16 G03 = NL -167-717
Pullulan esters and/or ethers - 41710V/23
- HENK 19.11.69 HENKEL KG AUF AKTIEN D15 E11 (D25) = NL -167-700
1-aminoalkane-1,1-diphosphonic acids (salts) - 35586S/21
- HENK 22.04.74 HENKEL KG AUF AKTIEN D25 E36 G04 = NL -167-718
Scouring powder contg. calcium-bonding aluminosilicates - 74395W/45

- HENK 02.11.78 HENKEL KG AUF AKTIEN A97 D25 E19 = US 4286-956
Liq. cold-resistant two-component detergent compsn. - 38352C/22
- HENK 24.12.79 HENKEL KG AUF AKTIEN A26 D25 = J5 6098-235
Polysiloxane block copolymers useful as antifoam agents - 49924D/28
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = DE 3007-044
Crystalline zeolite A powder having defined particle size prepn. - 66302D/37
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = DE 3007-080
Crystalline zeolite powder having defined particle size prepn. - 66304D/37
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = DE 3007-087
Crystalline zeolite A powder having defined particle size prepn. - 66301D/37
- HENK 27.02.80 HENKEL KG AUF AKTIEN D23 E14 = DE 3007-232
Perfume compsn. contg. 2-phenyl-1 (2)-propenyl carboxylic acid ester - 68222D/38
- HENK 27.02.80 HENKEL KG AUF AKTIEN D25 E37 = DE 3007-320
Dish-washing compsn. for machine use - 68223D/38
- * HENK 27.02.80 HENKEL KG AUF AKTIEN D23 E14 *EP --35-183
Perfume compsn. contg. 2-phenyl-1 (2)-propenyl carboxylic acid ester - 68222D/38
- * HENK 27.02.80 HENKEL KG AUF AKTIEN D25 E37 *EP --35-184
Dish-washing compsn. for machine use - 68223D/38
- * HENK 28.02.80 HENKEL KG AUF AKTIEN D13 *DE 3007-469
Sweets and dried fruit adhesion preventing sepp. oil mix - 68098D/38
- * HENK 01.03.80 HENKEL KG AUF AKTIEN A23 D25 F06 (A97) *EP --35-263
Tert. amino gp.-contg. polyester and salt derivs. - 68257D/38
- * HERA-06.03.80 HERAEUS EDELMETALLE D21 L02 *DE 3008-605
Ceramic-faced silver alloy dental prostheses prodn. - 68152D/38
- * HERS/28.01.80 HERSTAD O D23 *NO 8000-189
Wax candle - D/38
- * HIGE-29.12.79 HIGETA SHOYU KK D13 *J5 6096-679
Seasoning soln. prepn. - 68768D/38
- * HIRA/05.01.80 HIRAI H D15 J04 *J5 6096-790
Prodn. of high activity catalyst for purifying drinking water etc. - 68816D/38
- * HIRA/05.01.80 HIRAI H D15 J04 K08 *J5 6096-791
Mfr. of ceramic body carrying radioactive and catalytic substances - 68817D/38
- HITA 12.11.76 HITACHI KK D15 J01 = J5 3060-768
Filter for liq. e.g. water contg. powdered active carbon - 69131D/38
- * HITA 12.11.76 HITACHI KK D15 J01 *J8 1035-923
Filter for liq. e.g. water contg. powdered active carbon - 69131D/38
- * HITA 07.01.80 HITACHI KK B04 D16 J04 *J5 6097-863
Analytical determ. of amylase concn. - 68946D/38
- * HITA 07.01.80 HITACHI KK B04 D16 J04 *J5 6097-864
Glutamic acid-oxalo:acetic acid transaminase analysis - 68947D/38
- * HITA 11.01.80 HITACHI KK D16 J03 *J5 6098-649
Enzyme electrode - 69102D/38
- * HITB 12.11.76 HITACHI CHEMICAL KK D15 J01 *J8 1035-923
Filter for liq. e.g. water contg. powdered active carbon - 69131D/38
- * HITG 09.01.80 BABCOCK-HITACHI KK D15 J01 *J5 6097-599
Soft water prodn. - 68942D/38
- HOFF 30.01.80 HOFFMANN-LA ROCHE AG B03 C02 D16 = EP --35-119
Antibiotics X-14868 A, B, C and D from Nocardia sp. ATCC 31585 - 56870D/31
- HOFF 30.01.80 HOFFMANN-LA ROCHE AG B03 C02 D16 = NO 8100-319
Antibiotics X-14868 A, B, C and D from Nocardia sp. ATCC 31585 - 56870D/31
- * HOHY-07.01.80 HOHYU KK D21 *J5 6097-214
Hair colourant - 68872D/38
- * HOLK 23.02.80 HOLSTEIN & KAPPERT MASC D16 (D14) *DE 3006-814
Valve bank for drinks industry - 68072D/38
- * HOLT/12.02.80 HOLTZINGER G M G D16 S03 *FR 2475-736
Quantitative testing of wine for suspected chaptalization - 68399D/38
- HONE-10.02.78 HONEY BEE KK D13 = CA 1105-310
Soft drink contains full milk - 61699B/34
- HOUS-28.01.80 HOUSE FOOD IND CO L D13 = GB 2071-104
Prodn. of porous saccharide granules - 64539D/36
- HOWM-14.05.76 HOWMEDICA INC D21 M26 = J8 1036-212
Low value dental or jewellery alloy - 21622Y/12
- * HRAD/15.04.80 HRADIL J D16 (D17) *CS 8002-606
Invertase separation - D/38
- * HRBK/21.07.80 HRBKA A B04 D16 *CS 8005-147
Diagnostic antigen prepn. from rubeola virus - D/38
- HUBE 20.12.77 HUBER J M CORP D21 E33 = GB 1598-233
Abrasive silica compsn. for dentifrice paste - 67037A/38
- * IBPI-16.11.79 IBP IND BUITONI PER D13 *US 4287-216
Chocolate confectionery prod. contg. dispersed carbonated candy - 69739D/38
- ICHW 28.12.79 ICHIKAWA WOOLEN TEX LTD D15 = DE 3048-924
Sludge concn. and dewatering system - 52127D/29
- ICIL 19.11.79 IMPERIAL CHEM INDS LTD C02 D13 #DD -149-067
Tri:chloro-methyl-benz-heterocyclic cpds. - 33092C/19
- IMPT 27.07.78 IMPERIAL GROUP LTD A97 D18 G02 = US 4286-605
Cigar cover leaf prodn. - 13325C/08
- IMPT 09.02.80 IMPERIAL GROUP LTD D18 = FR 2475-364
Reconstituted tobacco sheet prodn. - 66500D/37
- * INDY/14.03.79 INDYUSKIN P N D15 E19 *SU -791-630
Amine removal from industrial waste water - 69333D/38
- * INFL 17.11.78 INT FLAVORS & FRAGR INC D23 E16 *US 4287-133
2,6-Di:methyl-1,5-heptadienyl-di:buten-amine deriv. - 69700D/38
- * INFL 16.11.79 INT FLAVORS & FRAGR INC D25 E15 *US 4287-081
Hexa:hydro-2H-2,4-A-methano-naphthalene-1(5H)-one(s) - 69679D/38
- * INFL 19.06.80 INT FLAVORS & FRAGR INC D25 E19 *US 4287-084
Altering the aroma of liq. hypochlorite bleaches - 69680D/38
- * INOZ 29.12.79 INOUE JAPAX RES INC D21 M26 *J5 6096-039
Silver-tin based dental amalgam - 68708D/38
- * INSP 11.02.80 INST PASTEUR A96 B04 D16 *FR 2475-572
Influenza viral fractions for prepn. of vaccines - 68381D/38
- INTE-23.03.78 INTEROX CHEM LTD D16 M25 = EP G004-431
Bacterial leaching of ores, esp. ferrous sulphide ores - 72162B/40
- INTE-12.12.79 INTEROX D25 E34 = J5 6098-300
Stabilisation of particulate peroxy cpds. by wax coating - 48076D/27
- INTM 20.12.76 INT MINERALS & CHEM CORP B03 C02 D13 = CA 1105-765
Improving animal growth rate and feed efficiency - 46123A/26
- * IOWA 16.04.79 IOWA STATE UNIV RES INC A96 D22 (A32) *US 4286-341
Vascular prosthesis comprising hydrogel on support tube - 69541D/38
- IOWA 13.11.79 IOWA STATE UNIV RES INC B04 C03 D16 = DK 8004-771
Vaccine contg. specific antigenic protein - 38502D/22
- JAAT 25.04.73 JAPAN ATOMIC ENERGY RES A97 D15 K07 (A25) = J8 1035-837
Decontamination reagent for radioactive waste washing water - 71584Y/40
- JAAT 00.00.77 NIPPON GENSIRYOKU J A97 D25 K07 = J8 1035-840
Detergent for treating radioactive pollutants - 52249A/29
- * JARO/07.07.80 JAROMERSKY L D17 *CS 8004-839
Sludge mixing and removal system for concentrating filter - D/38
- * JENO-04.03.80 JENO'S INC D11 *GB 2070-908
Non-docked fried dough crusts prodn. - 68433D/38
- * JERA/31.12.80 JERABEK V D11 *CS 8009-604
Cyclo-thermal, conveyor-type bread oven heater - D/38
- JOHJ 20.12.76 JOHNSON & JOHNSON A96 D22 S05 = CA 1105-688
X-Ray detectable surgical sponge - 68316C/39
- JOHJ 28.03.78 JOHNSON & JOHNSON A94 D22 F04 (A96) #CA 1105-821
Water absorbent and retentive matted fibre material - 75430B/42
- * JOHJ 27.02.81 DEVRO INC D12 *GB 2070-909
End closure for sausage casing - 68434D/38
- JOUL/21.10.77 JOULING D11 = US 4287-215
Bran bread prepn. - 33679B/18
- * JOVA-06.10.78 JOVAN INC A96 D21 *US 4286-609
Kit for hot oil treatment of fingernails - 69571D/38
- * JOZE/27.06.80 JOZEY V D17 *CS 8004-611
Vertical crystalliser for homogeneous mixts. - D/38
- KAAS-30.05.79 KAAS H & PSYST TEK D15 = CS 8003-692
Purificn. of chlorinated water recycled for swimming pool etc. - 73486C/42
- KAKY 01.02.77 KAKENYAKU KAKO KK B04 D16 = CA 1105-863
Islets activating protein from Bordetella pertussis - 57140A/32
- * KALI=18.07.78 KALININ POLY D15 J01 *SU -791-654
Suspension concentration by stirring with protein enzyme - 69350D/38
- * KALL/05.03.80 KALLENIOUS G P B04 C03 D16 S03 *EP --35-484
Therapeutic and diagnostic compsns. - 68337D/38
- KALO-28.01.80 KALOCSAI SUTO-ES ED D11 = SE 8100-472
Wheat bread of long storage stability prodn. - 42113D/24
- KALS-28.02.80 KALSEC INC D13 = GB 2070-910
Homogeneous liq. flavouring and colouring - 67874D/37
- * KAME/12.10.78 KAMENNYI V I C03 D13 (D16) *SU -754-856
Animal fodder supplement prepn. - 69203D/38
- KANE-18.09.76 KANEBO ENVIRON KK D15 = J5 3038-156
Sewage pretreating unit - 69132D/38
- * KANE-18.09.76 KANEBO ENVIRON KK D15 *J8 1035-924
Sewage pretreating unit - 69132D/38
- * KAOS 28.12.79 KAO SOAP KK A96 D21 E11 *J5 6095-994
Shampoo compsn. - 68697D/38
- * KAOS 28.12.79 KAO SOAP KK A97 D25 E12 *J5 6095-998
Detergent compsn. for coloured fabrics - 68698D/38
- * KASC/17.10.80 KASCAK J D16 *CS 8007-048
Non-fermented alcoholic beverage prepn. - D/38
- * KDFO=10.04.80 KRASNODARSK FOOD IN D14 J01 *HU T020-503
Appts. for classifying granular materials - D/38
- KEKA=26.12.77 KEMER KARBOLIT COMB A21 D15 (A97) = SU -791-608
Treating waste water from phenol-formaldehyde resin mfr. - 49355B/27
- KERJ 04.03.80 KERNFORSCHUNGS JULICH D15 = DE 3008-127

- * KERJ 04.03.80 KERNFORSCHUNGS JULICH D15 *EP --35-264
Liquid farmyard manure treatment - 68258D/38
- KERJ 04.03.80 KERNFTRSCHUNGS JULICH D15 = GB 2071-077
Liquid farmyard manure treatment - 68258D/38
- * KERR- 31.12.76 KERRY CO-OPERATIVE D13 *GB 1598-362
Emulsified food prepn., esp. low calorie butter - 68431D/38
- KIBU- 06.05.76 KIBUN KK D16 = CA 1105-308
Liquid culture medium free of insolubles - 55547A/31
- * KIKI= 31.10.78 KIEV KIEVKHLEBMASH D11 *SU -793-547
Dough proportionator during bread baking - 69521D/38
- KING/ 16.06.78 KING M K A96 D22 F04 = US 4287-251
Disposable absorbent nonwoven laminate - 03859C/03
- * KIRI 20.02.80 KIRIN BREWERY KK D16 *GB 2071-142
Low original gravity beers prodn. - 68501D/38
- KIRK- 12.11.79 KIRK CHEMICALS A/S D13 = DK 7904-779
Prepn. of ice cream keeping soft at low temps. - 19389D/12
- KIRK- 12.11.79 KIRK CHEMICALS A/S D13 = DK 7904-780
Prod. of low-fat soft ice-cream - 40446D/23
- * KISK- 12.10.79 KISKUNHALASI ALLAMI D16 *HU T020-621
Prod. of red wine from black grapes - D/38
- KLEI- 15.12.78 KLEIN A GMBH D15 J01 = HU T020-501
Endless belt filter for sludge dewater - 45271C/26
- KLEI/ 15.09.77 KLEIN M A25 D15 F09 J01 (A94 A97) = CA 1106-100
Particulate polyurethane foam tripodal strands - 33742B/18
- KLEI/ 15.02.80 KLEIN J A96 B04 D16 J04 = EP --35-121
Bio:catalyst beads prodn. by ionic crosslinking of polycations - 62499D/35
- * KNEI/ 25.01.80 KNEIST S B04 C03 D16 (D13) *DD -149-082
Mycotoxin citrinine prodn. by fermentation - 68049D/38
- * KOLL/ 21.10.80 KOLLROSS G A32 D12 (A97) *HU H002-659
Appts. for producing axial wrinkles in plastics hose - D/38
- KONN 07.11.79 GIST-BROCADES NV D16 (D15) = DK 8003-296
Prepn. of a biomass fixed on a granular support - 13711D/09
- * KONZ- 28.03.80 KONZERV-ES PAPRIKAI D14 *HU T020-492
Split hydrostatic sterilising machine for canning plants - D/38
- * KOZH/ 10.04.78 KOZHEMYAKINA IN D15 E36 *SU -791-628
Oxidative detoxification of hydrazine-hydrate in waste water - 69331D/38
- * KRFT 27.02.80 KRAFT INC D13 *WP 8102-377
Thixotropic desserts with reversible gel structure - 69815D/38
- KRPP 12.02.80 KRUPP F GMBH D16 J04 = BR 8100-828
Froth formation of gas-liq. reactions - 62448D/35
- KUKI- 23.12.76 KUKIDENT K KRISP A96 D21 E36 (E16) = CA 1105-387
Water soluble tablet for cleaning dentures - 42218A/24
- KURE 10.08.72 KUREHA CHEM IND KK D15 = J4 9037-468
Waste water treatment - 69140D/38
- * KURE 10.08.72 KUREHA CHEM IND KK D15 *J8 1035-954
Waste water treatment - 69140D/38
- KURS 30.07.74 KURARAY KK D15 J01 = J5 1015-860
Sludge filter comprising horizontal rotary tube - 69129D/38
- * KURS 30.07.74 KURARAY KK D15 J01 *J8 1035-886
Sludge filter comprising horizontal rotary tube - 69129D/38
- KURS 18.08.78 KURARAY KK A96 D22 (A14) = US 4287-177
Protective covering material for wounds - 15030C/09
- * KWAN/ 03.03.81 KWANTEN W D16 *BE -887-754
Growing mushrooms in conditioned space - 67963D/38
- * KYOW 28.12.79 KYOWA HAKKO KOGYO KK D13 E12 *J5 6096-680
Seasoning prodn. - 68769D/38
- * KYPO= 10.04.80 KRASNOYARSK POLY D14 J01 *HU T020-503
Appts. for classifying granular materials - D/38
- * KZEP= 15.08.78 KAZAN EPIDEMIOL MIC B04 D16 *SU -791-379
Bacterial allergen microbiological prodn. - 69264D/38
- LAGS/ 18.04.79 LAGSTROEM E G D15 M25 = DK 8005-294
Extraction of valuable substances from sea water - 79412C/45
- * LEBA= 18.09.78 LENGD BASIC CHEM IN D15 E36 *SU -791-629
Oxidative detoxification of phosphorus-contg. waste water - 69332D/38
- * LECE 18.12.78 LENINGRAD CELL-PAPER INS D15 F09 *SU -791-650
Pre-hydration treatment of sulphate cellulose waste water sediment - 69348D/38
- LEPE 07.04.79 GRUPPO LEPETIT SPA B04 D16 = J5 6097-237
Antibiotic A-16686 obtd. by culturing Actinoplanes strain - 73479C/42
- * LERE= 24.10.77 LENGD REFRIG IND TECHN D13 *SU -793-553
Protein coagulation, e.g. during casein prodn. - 69523D/38
- LESA 24.12.76 LESAFFRE CIE D16 #CA 1105-318
New Saccharomyces cerevisiae yeast strain - 14717C/09
- * LESI 14.05.80 LESIEUR COTELLE SA A97 D25 E19 F06 *BE -888-678
Textile softener concentrate contg. cationic softener - 67983D/38
- * LIBU= 21.12.76 LITH BUTTER CHEESE D14 *SU -793-507
Milk homogeniser - 69518D/38
- LIND- 30.01.80 LINDEMANN MASCH GMB D15 = EP --35-112
Refuse and sludge mixture - 58863D/33
- * LINM 29.02.80 LINDE AG D15 *EP --35-248
Biological sewage treatment - 68251D/38
- LIOY 11.10.79 LION FAT & OIL KK D25 E19 = US 4287-102
Cleaning compsn. contg. olefin sulphonate salt and amine oxide - 30999D/18
- LIOY 29.10.79 LION FAT & OIL KK D25 = US 4287-101
Enzyme-contg. detergent compsn. for textile washing - 34645D/20
- * LIOY 21.11.79 LION CORP A96 D21 E17 *J5 6095-993
Creamy detergent compsn. - 68696D/38
- * LIOY 28.12.79 LION DENTIFRICE KK A96 B05 D21 (A11 B07) *J5 6095-937
Non-aq. pasty compsn. - 68663D/38
- * LISK= 27.02.79 LISKINSK MEAT COMPL D12 *SU -793-548
Equipment for removing sub-products from meat processing - 69522D/38
- * LIVE= 06.06.79 LIVESTOCK NON-CONTAGIOUS C03 D13 *SU -791-364
Salt mixt. used as animal feedstuff additive - 69260D/38
- LOMS 26.07.79 LAB OM SA B04 D16 = CS 8005-266
Immuno-therapeutic E. coli lysates - 86397C/49
- * LONG- 09.03.78 LONGWOOD ENG CO LTD D15 *GB 1598-103
Cleaning semi-cylindrical screen with rotating scraper - 68417D/38
- * LONG- 16.03.78 LONGWOOD ENG CO LTD D15 *GB 1598-130
Clearing inclined screen bars by scraper - 68419D/38
- * LOUB/ 11.02.80 LOUBEYREG D12 *FR 2475-359
Tool to open duster shells etc. - 68344D/38
- * LOWE- 21.12.76 LOWE F C & SON LTD A97 C03 D13 *GB 1598-069
Semi-moist animal food made from raw, blanched or cooked meat - 68414D/38
- * MACA- 17.10.79 MACANDREWS & FORBES B05 D23 E15 (D11 D21) *J5 6065-813
Perfume for food, dental paste, drugs, etc. - 68556D/38
- * MACG/ 02.05.76 MACGREGOR D C A96 D22 *CA 1105-652
Metal heart valve structure - 68012D/38
- * MARU- 31.12.79 MARUTOMO KOKEN KK D15 J01 *J5 6097-517
Water-oil mixt. filtering medium - 68928D/38
- MASI 07.03.77 MASSACHUSETTS INST TECH B02 D16 = GB 1597-856
Cephalosporin prodn. from penicillin - 65136B/36
- * MATS 28.12.79 MASAYUKI MATSUMOTO A11 D13 *J5 6095-901
Mfg. carrageenan by gelling with aq. salt soln. - 68636D/38
- MATU 27.07.79 MATSUSHITA ELEC IND KK D11 = GB 2070-907
Baking oven with circulating hot air - 17404D/10
- * MAYC 23.05.80 MAYER O & CO INC D13 (D12) *BE -888-698
Reshaping meat prod. etc. to fit tightly in plastic package - 67991D/38
- * MAZN 28.12.79 MARUZEN KASEI KK B03 D13 E13 *J5 6096-678
Sweetener prep. by extrn. of licorice with aq. alkali hydroxide soln. - 68767D/38
- * MAZN 28.12.79 MARUZEN KASEI KK B03 D13 E13 *J5 6097-298
Extraction and purification of glycyrrhizin - 68902D/38
- MEAT= 07.06.79 MEAT IND RES INST D12 #HU T020-487
Heat treatment chamber - 07865D/06
- MEDL- 04.05.79 MEDLINE AB A96 D22 = EP --35-018
Device for closing body passages, esp. for use as contraceptive - 90094C/50
- MEIJ 16.08.78 MEIJI SEIKA KAISHA B04 D16 = CA 1105-450
Antibiotic antitumour derivs. of substance SF-1739 - 68342B/38
- MERE 27.12.79 MERCK PATENT GMBH A96 B04 D16 S03 (S05) = J5 6098-656
Quantitative immunological determination of enzymes in fluids - 55402D/31
- * MERI 29.07.75 MERCK & CO INC A96 D22 *US 4287-175
Improving the comfort and wearing time of contact lenses - 69721D/38
- MERI 24.09.79 MERCK & CO INC B04 D21 (D16) = US 4287-173
Anticaries vaccine - 44491D/25
- MERI 13.11.79 MERCK & CO INC B04 D16 = DK 8004-814
Cell culture of hepatitis B virus - 38590D/22
- MESP/ 01.02.80 MESPLE J L R D15 = SE 8100-116
Prod. of drinking water by reverse osmosis desalination - 40238D/23
- METB 28.07.80 METAL BOX CO LTD A88 D16 #CS 8005-881
Closure element for vessels contg. fermenting substances - D/21
- * MEZO- 25.07.75 MEZOGAZDASAGI TERME C03 D13 *HU T020-488
Cattle feed additive - D/38
- MILE 16.03.77 MILES-YEDA LTD A96 B04 D16 J04 (S03) = CA 1105-381
Quantitative determination of hapten(s) - 69285A/39
- * MIME= 20.12.78 MINSK MEDICAL INST B04 D16 J04 S03 *SU -792-092
Device for measuring micro-quantities of gas in liquids - 69503D/38
- * MIME= 11.03.79 MINSK MEAT DAIRY D11 (D12) *SU -793-750
Long-loaf cutting device - 69536D/38
- * MINN 10.05.76 MINNESOTA MINING CO D22 *US 4286-754
Wick for olfactory liquid dispenser - 69594D/38
- * MITN 07.01.80 MITSUBISHI GAS CHEM IND A97 D15 *J5 6097-598
Descaling agent for pipes in sea water treatment plant - 68941D/38
- MITS- 12.09.78 MITSUI KENSETSU KK D15 E35 = J8 1035-913
Appts. for ammonia recovery from waste liquors - 20453C/12
- * MITU 27.12.79 MITSUBISHI CHEM IND KK B04 D16 *J5 6096-697
Ferredoxin prodn. from Thermus thermophilus microorganism - 68773D/38
- * MITU 31.12.79 MITSUBISHI CHEM IND KK A97 C03 D22 *J5 6097-201
Insecticidal repellent - 68865D/38
- MJOL- 23.11.77 MJOLKCENTRALEN EKON D13 = CA 1105-316
Low calorie margarine mfr. - 24016B/13

- MJOL-23.11.77 MJOLKCENTRALEN ARLA D13 = CA 1105-767
Protein concentrate prodn. from skimmed milk - 24015B/13
- *MODA-08.05.80 MODAR INC D15 *BE-888-696
Treating organic material and water with oxygen - 67990D/38
- *MOFJ 26.02.79 MOS FINE CHEM TECH D22 E13 H01 (D15) *SU-791-620
Sulphate-reducing bacteria growth prevention - 69327D/38
- MOFO= 09.11.79 MOSC FOOD IND TECH INST D16 #DK 7904-755
Microorganism cultivation reactor - 40369D/23
- *MOSN 22.01.76 MOSCOW NAT ECONOMY INST D14 *SU-793-557
Agricultural product sorting machine working unit - 69525D/38
- *NADI 14.01.80 NATIONAL DISTILLERS CORP C03 D16 (D13 D17) *US 4287-304
Prepn. of fermentable sugars from starch from dry milled corn - 69774D/38
- NATA-06.05.76 NAT TAX ADMIN AGENC D16 = CA 1105-308
Liquid culture medium free of insolubles - 55547A/31
- NATT 03.07.78 NAT STARCH & CHEM CORP D13 = CA 1105-766
Prepn. of dispersible chocolate liquor - 02228C/02
- NEST 15.11.79 SOC PROD NESTLE SA D13 = DK 8004-862
Water dispersible, storage stable food material prepn. - 40527D/23
- *NEST 12.03.80 SOC PROD NESTLE SA D13 *BE-887-787
Moulding composite confection on ice cream etc. - 67971D/38
- NEXU-01.11.79 NEXUS APS C03 D13 E17 = BR 7909-049
Fatty acid partial ester(s) of glycerol condensates - 40195D/22
- *NICH-30.12.79 NICHIREKI KAGAKU KO A97 D15 J01 *J5 6095-509
Rapid dissolution of a polymeric coagulant in water - 68582D/38
- *NICH-30.12.79 NICHIREKI KAGAKU KO A97 D15 J01 *J5 6097-510
Aggregating agent composite - 68926D/38
- *NICH-30.12.79 NICHIREKI KAGAKU KO A97 D15 *J5 6097-600
Waste sludge treatment - 68943D/38
- NIDE 10.04.73 NIPPON ELECTRIC KK D15 = NL-167-662
Removal of heavy metal impurities from aq effluents - 48999V/27
- *NIEN-29.12.79 NIPPON ENVIRO KOGYO D15 J01 *J5 6097-513
Separator e.g. for waste water contg. sludge - 68927D/38
- *NIHS 07.01.80 NIPPON SURFACTANT KK B05 D21 E17 (B07 D13 D25) *J5 6097-532
Emulsifier used in medicines, cosmetics, foods and washing agents - 68935D/38
- *NIIG 29.12.79 NIIGATA ENG KK D15 E36 J01 *J5 6096-713
Removal of ash from activated carbon - 68779D/38
- *NIIK-29.12.79 NIIKK D21 E17 *J5 6097-208
Stable cosmetic cream having excellent texture - 68870D/38
- NIOC 07.11.79 NIPPON OIL KK B02 D16 (D13) = DE 3042-092
Uroporphyrin III prodn. by culture of *Arthrobacter* strains - 52061D/29
- NIOF 07.01.80 NIPPON OILS & FATS KK D23 = J5 6097-503
Sepn. of components of fatty mixt. - 62891D/35
- *NIPE 29.12.79 NIPPON PETROCHEM KK D23 E15 *J5 6097-244
Alkenyl norbornanone cpds. prepn. - 68885D/38
- NIPE 29.12.79 NIPPON PETROCHEM KK D23 E15 = J5 6097-281
Substd. norbornanone acetal(s) used in perfume compns. - 53634D/30
- NIPK 23.04.74 NIPPON KAYAKU KK C03 D22 E14 F06 (F09) = J8 1036-170
Sulphonyl-phenyl carbamate derivs. as bactericides and fungicides - 02693A/02
- NIRA 07.11.79 UNITIKA KK B04 D16 = DK 8004-718
Heat-stable glucose-6-phosphate dehydrogenase enzyme - 38404D/22
- NISB 02.07.76 JAPAN TOBACCO & SALT PUB D18 E17 = J8 1036-186
5-Amino-3-hydroxy-valeric acid and its derivs. - 16635A/09
- NISP 27.12.77 NISSIN SHOKUHIN KAISHA D11 = CA 1105-315
Noodle dough paste - 49447B/27
- NMHB 01.06.79 NORDISCH MASCH R BAADER D12 #US 4286-355
Fish filleting machine - 69556C/39
- NMHB 15.11.79 NORDISCH MASCH R BAADER D12 = DK 8003-095
Fish filleting apparatus - 40672D/23
- NMHB 01.02.80 NORDISCH MASCH R BAADER D12 = NO 8002-058
Fish positioning device for heading - 55390D/31
- NMHB 01.02.80 NORDISCHER MASCHINE D12 = SE 8004-208
Fish positioning device for heading - 55390D/31
- NODA 26.04.77 NODA INST SCI RES B04 D16 = GB 1598-019
Bacteriophage for genetic manipulation - 83490A/46
- NODA 29.09.77 NODA INST SCI RES B04 D16 = J8 1036-178
Spore-formation inducing factor SF-1 - 43129B/23
- NOEL-06.02.80 NOELL GG GMBH D15 = GB 2070-955
Mechanical water purification grating system - 60609D/34
- NOVE-26.03.79 NOVEX TALALMANYFEIL D15 J01 = DD-149-024
Separator for liq. systems - 71801C/41
- NUOR/13.11.79 NUORTIER D22 F07 = NO 8100-302
Absorbent pad containing chopped paper - 44031D/24
- *OPLU/09.10.80 OPLUSTILV D18 *CS 8006-814
Leather face cleaning and steaming - D/38
- OREA 07.04.70 L'OREAL SA A96 D21 (A18) = NL-167-592
New emulsions useful for cosmetics prodn - 67349S/42
- OREA 16.07.76 L'OREAL SA A25 B04 D21 (A97 B07) = CA 1105-479
Polyether-poly: asurfactants with sequenced structure - 06349A/04
- OREA 21.07.76 L'OREAL SA D21 E24 = CA 1105-386
Stable solutions of specified indoaniline and indophenol dye - 06389A/04
- OREA 23.09.77 L'OREAL SA A96 D21 = US 4287-172
Aminated polymers used in hair and skin care products - 23958B/13
- OREA 18.12.79 L'OREAL SA D21 = DE 3047-649
Cosmetic oils based on jojoba and sunflower oils - 47823D/27
- OREA 21.12.79 L'OREAL SA A26 D15 F06 (A96 A97 D22) = J5 6098-233
Cationic quat. nitrogen-contg. condensn. polymers - 47837D/27
- ORIO-31.10.79 ORION-YHTYMA OY B01 D21 E13 = J5 6097-212
Topical compsn. for promoting hair growth and preventing dandruff - 36705D/21
- ORIO-13.11.79 ORION RESEARCH INC D15 J04 S03 = J5 6096-239
Monitoring sample streams contg. fluoride or sulphide series - 34205D/
- *ORSH= 24.10.77 ORSHAN MILK COMPLEX D13 *SU-793-553
Protein coagulation, e.g. during casein prodn. - 69523D/38
- OYFA 06.11.79 FARMOS-YHTYMAE OY C03 D13 = DK 8004-702
Treatment of animal feed before ensilaging - 36707D/21
- *PALN/19.11.79 PALNUM N D21 *DK 7904-897
Cosmetic product - D/38
- PANL-31.03.77 PANLABS INC B02 C02 D22 (D13) = GB 1598-062
De:thia-penicillin derivs. from new *Streptomyces* species - 72706A/41
- *PARK/22.02.80 PARK R J B01 D16 (B05) *WP 8102-427
Aerobic fermentation of bile - 69829D/38
- PEGA-18.02.80 PEGASUS PENSION FUN D16 = BR 8100-948
Producing plants inoculated with symbiotic mycorrhiza - 68273D/38
- *PEGA-18.02.80 PEGASUS PENSION FUN D16 *EP--35-296
Producing plants inoculated with symbiotic mycorrhiza - 68273D/38
- PENN 04.10.79 PENNWALT CORP A97 D15 = J5 6097-544
Aq. hypochlorite soln. decomposition - 29324D/17
- PETR 16.12.76 VEB PETROCHEM SCHWEDT D16 H04 (D13) = HU T020-617
Edible protein prodn. from fermentation of (N) paraffins - 79493Y/45
- PFIZ 24.12.74 PFIZER INC D21 L02 M26 = J5 6096-047
Dental alloy for bonding to porcelain - 54416X/29
- PFIZ 04.02.76 PFIZER INC B04 D16 = NL-167-728
Antibiotic macrobicyclic peptides 41043 and 41494 - 46851Y/26
- PFIZ 04.02.77 PFIZER INC B03 D22 E13 G02 (D15) = NO 8101-913
Antibacterial 4"-deoxy-4"-amino-erythromycin derivs. - 58751A/33
- *PFIZ 02.07.80 PFIZER INC B04 D16 *US 4287-182
Antibiotics cp-54715 and cp-54716 prepn. - 69725D/38
- *PHIM 18.06.79 PHILIP MORRIS INC D18 E19 *US 4286-606
Prepn. of flavour prods. for smoking tobaccos - 69570D/38
- *PHIM 20.02.80 PHILIP MORRIS INC D12 E13 *BR 8101-011
Hydroxy-substd. heterocyclic carboxylate compsns. - D/38
- PHIM 21.02.80 PHILIP MORRIS INC D18 E34 = WP 8102-379
Treating tobacco by extrn., removing potassium nitrate - 66393D/37
- PHIM 05.03.80 PHILIP MORRIS INC D18 = EP--35-052
Denitration of aq. tobacco extracts - 21215D/12
- *PHIM 05.03.80 PHILIP MORRIS INC D18 *EP--35-273
Selective denitration of aq. tobacco extract - 68266D/38
- *PHYL-23.01.81 PHYLAXIA OLTOANYAG C03 D13 *HU H002-660
Enriched, homogenised animal feed additive - D/38
- PIEC 03.03.78 PIERCE CHEMICAL CO B04 D16 #GB 1597-854
Peptide synthesis - 71082B/39
- *PITM 25.03.74 PITMAN-MOORE INC B04 C03 D16 *US 4287-178
Feline viral rhinotracheitis vaccine - 69723D/38
- POLA 11.09.67 POLAK'S FRUTAL WORKS INC B05 D13 E19 = NL-167-580
Flavouring method - 65183Z/00
- POLA 04.11.70 POLAK'S FRUTAL WORKS INC D23 E15 = J5 6097-219
2-alkyl-3-subst-cyclopentanones - 32772T/21
- *POPO= 22.01.79 POPOV N I D15 *SU-791-642
Recirculated industrial water treatment - 69342D/38
- *POTA= 03.08.77 POTATO FOOD IND INS D13 *SU-672-729
Potato-based foodstuff prodn. - 69187D/38
- *POUL= 19.06.79 POULTRY RES INST C03 D13 *SU-791-357
Prod. of artificial parthenogenesis in chickens - 69258D/38
- *PRIK/08.04.80 PRIKRYL J D15 *CS 8002-381
Scavenging additive for circulating system - D/38
- PROC 11.02.77 PROCTER & GAMBLE CO D25 E37 J08 = GB 1598-374
Rapid drying of shaped units e.g. of peroxy cpds. - 53121A/29
- PROC 21.11.77 PROCTER & GAMBLE CO A87 D25 F06 = CA 1105-209
Textile conditioning compsn. - 40968B/22
- PROC 07.09.79 PROCTER & GAMBLE CO D21 E16 (D25) = J5 6095-999
Soap bars contg. N-substd.-aminoacid - 21832D/13
- *PROC 17.09.79 PROCTER & GAMBLE CO D25 E19 *US 4287-080
Improved solid and liq. detergent compsns. - 69678D/38
- PROC 21.09.79 PROCTER & GAMBLE CO D25 E13 = J5 6095-996
Mixed nonionic and cationic detergent compsns. - 25867D/15
- PROC 29.09.79 PROCTER & GAMBLE CO A97 D25 E19 (A25) = J5 6095-995
Cleaning and softening laundry compsns. - 27667D/16
- PROC 11.10.79 PROCTER & GAMBLE CO A97 D25 E17 (E14) = J5 6095-997
Isotropic liquid laundry detergent compsns. - 34773D/20

- PROC 22.02.80 PROCTER & GAMBLE CO D25 E19 (D16) = US 4287-082
Enzyme-contg. liq. detergent compns. - 38533D/22
- *PROS-09.01.79 PROSENBAUER & CO D12 *US 4286-510
Brine injection in meat by two independent needle assemblies - 69558D/38
- *PURX 02.06.80 PUREX CORP LTD D25 E36 *US 4287-079
Thixotropic aq. cleaning compns. - 69677D/38
- QUAK 08.11.79 QUAKER OATS CO C03 D13 #DK 7904-731
Gelled pet food of intermediate moisture content - 83182C/47
- QUET-17.10.79 QUETTE FRERES B07 D13 = NO 8101-994
Hard dragee production using sorbitol to replace sugar - 30821D/18
- RAIS 21.01.80 RALSTON PURINA CO C03 D13 = DE 3047-677
Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
- *RANC= 03.08.79 RANCH FODDER EQUIP C03 D13 *SU -793-555
Animal feedstuffs prodn. - 69524D/38
- REDF-16.11.79 RED FOX IND INC D15 = DK 8004-534
Waste water purificn. plant partic. for ships at sea - 17487D/11
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 = CA 1105-402
Plasmid contg. gene from a higher organism - 70827A/40
- *REGC 29.02.80 UNIV OF CALIFORNIA D16 *EP --35-384
Deoxy nucleotide linkers for cloned DNA coding sequences - 68307D/38
- REID/04.11.77 REID J H D15 = CA 1105-624
Flow control appts. for waste water oxidation ditch - 40603B/21
- *REIT/23.02.80 REITTER F J D17 (D16) *WP 8102-428
Continuous acid hydrolysis of cellulosic vegetable material - 69830D/38
- RENS/08.02.80 RENSONNET A R L O E D15 = FR 2475-521
Purificn. of waste water by activated sludge treatments - 45162C/26
- *RETR/11.12.78 RETRUM R C03 D13 *US 4286-884
Appts. for continuous hydrolysis of keratinous material - 69601D/38
- REWO 12.11.77 REWO CHEM FAB D25 E19 (D21) = CA 1105-485
Mixed sulpho-succinate half ester prodn. - 39230B/21
- RHON 10.02.77 RHONE-POULENC INDUSTRIES D13 F01 (D12) = US 4287-219
Meat-like, spun protein filaments - 62885A/35
- RHON 21.12.79 RHONE-POULENC INDUSTRIES D12 = DE 3048-156
Food prods. produced from extruded protein fibres - 47840D/27
- RIAT-18.02.80 RIAT SOC FRANCESCA D18 = BR 8100-949
Perforated drum contg. skins for soaking in liq. - 64388D/36
- *RICH/01.10.75 RICH N I D12 *US 4287-218
Ready to eat moulded meat loaf - 69740D/38
- RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 = FR 2475-573
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 = HU T020-619
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- RIGA-21.06.76 RIGA INC D15 J01 = CA 1105-847
Liq. clarifying appts. - 81092Y/45
- RIKA 11.03.77 RIKAGAKU KENKYUSHO C03 D16 = GB 1598-231
Fungicide contg. Bacileucine-A or -B or its complex - 80900A/45
- *RIVI/19.02.79 RIVINA Z M D15 E36 J04 S03 *SU -791-587
Active chlorine photometric determ. in chloride salts and aq. waste - 69301D/38
- ROHG 20.05.77 ROHM GMBH A14 B04 D16 (A96) = GB 1598-050
Crosslinked acrylic pearl polymers with hollow beads - 87967A/49
- ROHM 31.01.77 ROHM & HAAS CO A91 D15 (A14) = CA 1105-638
Particulate flocculating agent, esp. for waste water - 56789A/32
- ROHM 27.06.77 ROHM & HAAS CO A91 B04 D15 E19 (A13 D13 D17) = GB 1598-389
Crosslinked anion-exchange resin - 05441B/03
- ROHM 23.11.77 ROHM & HAAS CO D22 = GB 1597-997
Removing bacteria from liq. - 40964B/22
- *ROTA-19.04.78 ROTAMOULD LTD D16 *GB 1598-284
Compositing container - 68423D/38
- *ROUC/12.02.80 ROUCHOUSE G D25 E12 H01 (E34) *FR 2475-518
Oxidising prod. contg. sodium peroxide used for bleaching etc. - 68368D/38
- ROUS 07.04.78 ROUSSEL UCLAF B02 D22 = US 4287-193
Amino:thiazolyl-acetamido cephalosporin derivs. - 73624B/41
- ROUS 01.02.80 ROUSSEL UCLAF B04 D16 = NO 8100-334
Recovering peptide and phospho-peptide from casein materials - 60791D/34
- ROUS 01.02.80 ROUSSEL UCLAF B04 D13 = NO 8100-335
Phospho:peptide prodn. from caseinate - 62670D/35
- RUHR 13.10.78 RUHRCHEMIE AG D23 E17 = CA 1105-945
2-Propyl-pent-4-en-1-al useful as perfume - 20325C/12
- *RUM/00.00.80 RUMLV D15 M11 *CS 8005-864
Treatment of sludge from plating works - D/38
- SAGR/13.02.80 SAGREDOS A N C03 D13 = FR 2475-363
Animal feed prodn. from plant residues and waste material - 62467D/35
- *SAKA/21.12.79 SAKAI I D22 *J5 6097-456
Deodoriser for ammonia, hydrogen sulphide, mercaptan(s), amine(s) etc - 68919D/38
- SAKB 12.08.77 OTSUKA KAGAKU YAKUH D23 E15 = GB 1597-864
2-(2-Pentynyl)-cyclopentanol derivs. - 14432B/08
- SAKB 12.08.77 OTSUKA KOGAKU YAKUH D23 E15 = GB 1597-865
Cyclopentanol derivs. - 14431B/08
- SAKB 12.08.77 OTSUKA KAGAKU YAKUH D23 E15 = GB 1597-866
Novel 2-cyclopentenone derivs. - 14430B/08
- *SALT= 06.06.79 SALT IND RES INST C03 D13 *SU -791-364
Salt mixt. used as animal feedstuff additive - 69260D/38
- *SAMB/21.02.79 SAMBORSKII V A97 D15 E19 *SU -791-645
Prepn. of inhibitor of mineral salt pptn. - 69344D/38
- *SAMB/21.02.79 SAMBORSKII V A97 D15 E19 *SU -791-646
Prepn. of inhibitor of mineral salt pptn. in water systems - 69345D/38
- SANC/14.11.79 SANCHEZ I O A35 D18 = DK 8004-839
Cut leather and plastic pieces processor - 38388D/22
- SANO 08.02.80 SANDOZ AG C02 D22 = BR 8100-754
Topical application of 4-alkylamino:quinazoline derivs. - 60883D/34
- SAOC 31.03.77 SANRAKU OCEAN B02 C02 D22 (D13) = GB 1598-062
De:thia-penicillin derivs. from new Streptomyces species - 72706A/41
- SCHA/27.02.80 SCHANZER C03 D13 (D16) = EP --35-062
Concentrate based on yeast liq., useful in human or animal nutrition - 66243D/37
- SCHE 09.11.79 SCHERING CORP B03 C02 D16 = DK 8004-772
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- *SCHM/03.03.80 SCHMIT J D15 *DE 3028-039
Sewage treatment system - 68161D/38
- *SEAF 09.01.78 SEA FISHERY OCEANOGRAPHY D12 X25 *SU -693-560
Contactless method for finding position of shoulder bones in fish - 69189D/38
- *SEAS-29.08.79 SEA SAVORY INC D12 *US 4286-356
Apparatus for removal of meat from crab body - 69543D/38
- SEED/12.10.79 SEED B S A11 B04 D16 (A96) = US 4286-964
Hydroxy-bearing substrate derivs. - 31189D/18
- *SEKE/12.05.80 SEKERKA V B04 D16 *CS 8003-272
Setting medium for cytological microscopy - D/38
- *SEME/08.01.79 SEMENOV R V D15 J04 S03 *SU -783-671
Unit for measuring micro-concn. of chemical reagents in natural water - 69239D/38
- SHEL 14.03.75 SHELL INT RES MIJ BV C03 D16 H04 = HU T020-620
Growing methane using microorganisms - 73963X/40
- SHEL 09.02.76 SHELL INT RES MIJ BV D25 E37 #CA 1105-206
Activation of peroxide bleaches - 39665Y/22
- SHEL 09.02.76 SHELL INT RES MIJ BV D25 E37 = CA 1105-657
Activation of peroxide bleaches - 39665Y/22
- SHEL 09.02.76 SHELL INT RES MIJ BV D25 E12 (E34) = CA 1105-658
Storage stable, inexpensive bleaching compsn. - 43894A/24
- SHIO 19.09.77 SHIONOGI KK B03 C02 D13 E13 (D22) = CA 1105-455
1-Heterocyclyl-carbonyl-amino-glycoside cpds. - 26439B/14
- SHIO 18.01.79 SHIONOGI KK D15 J02 = US 4287-137
Aeration impeller - 55481C/32
- *SHIS 28.12.79 SHISEIDO KK D21 E17 *J5 6097-210
Cosmetic remover - 68871D/38
- *SHMA 27.12.79 SHIMADZU SEISAKUSHO KK B04 D16 *J5 6096-698
Colorimetric determ. of enzyme activity - 68774D/38
- *SHMA 27.12.79 SHIMADZU SEISAKUSHO KK B04 D16 *J5 6096-699
Determining activity of micro-amts. of enzyme - 68775D/38
- *SIGE 01.03.80 SIGRI ELEKTROGRAPHI GMBH B06 D22 E36 (B07) *DE 3007-878
Carbon as implantable carrier for antibiotics - 68110D/38
- *SMEL/05.03.80 SMELY Z D16 *CS 8001-511
Wine and fermented products drink - D/38
- SMHL 01.02.80 SIMON HARTLEY LTD D15 J01 = NO 8100-336
Sludge dewatering appts. having foraminous belt - 60888D/34
- SMHL 01.02.80 SIMON HARTLEY LTD D15 J01 = SE 8100-710
Sludge dewatering appts. having foraminous belt - 60888D/34
- SMIK 16.10.79 SMITH KLINE RIT B04 D16 = J5 6096-692
Recombined type/A influenza virus for vaccine prodn. - 31136D/18
- SMIN 05.03.80 SMITH & NEPHEW LTD A14 D22 G03 (A81 A96) = EP --35-399
Copolymer of butyl acrylate ethyl-hexyl acrylate and acrylic acid - 66558D/37
- SNAM 12.05.75 SNAMPROGETTI SPA B05 D16 E16 = HU T020-556
D-Carbamylamino acids and D-amino acids useful as intermediates - 90942X/49
- SNAM 06.06.75 SNAMPROGETTI SPA D15 = NL -167-661
Desalination of sea water by evapn. - 92386X/50
- SNAM 23.12.76 SNAMPROGETTI SPA C03 D16 H04 (D13) = HU T020-616
Methanol-utilising Candida strain - 45864A/26
- SNKM 31.12.79 SANKIN KOGYO KK A96 B05 D21 S03 (S05) = J5 6096-700
Compsns. for dental caries diagnosis - 50222D/28
- SOFR-04.10.77 SOFRAPAIN LYON D11 = GB 1597-980
Machine for grooving automatically the tops of unbaked loaves - 28843A/16
- SOLV 25.02.76 SOLVAY & CIE A97 D25 F06 (A14 F09) = CA 1105-656
Bleach compsn. stabilised by poly-alpha hydroxy acrylic acids - 61156Y/35
- SORM/16.05.80 SORM M D21 E16 = CS 8003-425
Hydroxy-alkylated amine gp.-contg. fatty acid ester derivs. - 05942D/05

SPIL/

- * SPIL/ 30.06.80 SPILKA V D15 *CS 8004-645
Elimination of solids and biochemical impurities from water - D/38
- * SPIL/ 30.06.80 SPILKA V D15 *CS 8004-646
Waste water tank transportation - D/38
- * SPIL/ 09.07.80 SPILKA V D15 *CS 8004-877
Piggery waste water processing processing - D/38
- * SPIL/ 09.07.80 SPILKA V D15 *CS 8004-878
Waste water purificn. - D/38
- STAD 22.09.72 STANDARD OIL CO (IND) A97 D15 = J8 1035-882
Low molecular weight, oxygen-contg polymers - 28390V/15
- * STAN/ 12.09.75 STANDIFORD FC D15 J01 *US 4287-019
Multistage flash evaporator for brine - 69641D/38
- * STAN/ 02.09.80 STANLEY BF D15 *US 4287-057
Water conditioner with axially movable filter beds - 69664D/38
- * STAU 22.12.75 STAUFFER CHEMICAL CO B06 D21 E37 *CA 1105-389
Fluoride dentrifice which is non corrosive to aluminium tubes - 68009D/38
- STBR 19.11.79 STANDARD BRANDS INC D13 = DK 8004-927
Low fat spread for low-calorie diet - 40486D/23
- STBR 19.11.79 STANDARD BRANDS INC A97 D13 = DK 8004-929
Low-fat liq. spreads - 40215D/23
- SUNR 09.10.78 SUNTORY LTD B04 D16 = US 4287-185
Reagents for detection and determ. of virus - 37463C/21
- SURG- 03.03.76 SURGIKOS INC D22 = CA 1105-792
Surgical drape - 50063Y/28
- SUSO 29.02.80 SUOMEN SOKERIOY A96 B05 C03 D13 = WP 8102-420
Recovering betaine from diluted molasses - 51680D/29
- SVEN/ 28.01.80 SVENSSON SE B04 D16 = SE 8000-658
Oligosaccharide isolation from cell tissue - 62288D/34
- SYND- 24.01.79 SYND NAT FAB SUCRE D17 (D15) = EP G014-136
Plant to purify sugar refinery effluent and produce methane - 57382C/33
- SYNT 26.07.79 SYVA CO B04 D16 S03 = US 4287-300
Immunoassay system including a polyionic charged species - 13671D/08
- * SZES- 23.08.79 SZESZIPARI KUTATO B04 D17 (B07) *HU T020-623
Processing starch for direct pharmaceutical use - D/38

- TAIY- 08.09.78 TAIYO KORYO KK D23 E15 = J8 1036-176
Perfume cpd. - 30296C/17
- TAKE 31.03.77 TAKEDA CHEMICAL IND KK B02 C02 D16 = HU T020-618
Antibiotic complex C-15003 prep. from Nocardia species - 72710A/41
- * TAKE 28.12.79 TAKEDA CHEMICAL IND KK B03 D13 E13 *J5 6097-298
Extraction and purification of glycyrrhizin - 68902D/38
- * TANA/ 28.12.79 TANAKA S B05 D13 E12 *J5 6097-248
Water soluble calcium citrate-calcium malate composite prep. - 68887D/38
- TARU/ 28.11.79 TARULLI D14 = DE 3044-545
Press for extracting juice from fruit - 55518D/31
- TATL 18.04.75 TATE & LYLE LTD A60 D25 E13 G02 = SU -791-248
Purified saccharose fatty acid ester surfactant - 81230X/44
- * TATL 07.03.78 TATE & LYLE LTD D22 E19 *GB 1598-102
Aq. cleansing compsn. contg. fatty acid sucrose ester(s) - 68416D/38
- TATL 07.11.79 TATE & LYLE LTD B03 C02 D13 E13 (B07 C03) = DK 8004-759
Foodstuffs, etc., contg. iso: maltulose - 38545D/22
- TATL 07.11.79 TATE & LYLE LTD B03 D16 E13 (B07 D13) = DK 8004-760
Iso: maltulose prodn. from sucrose - 38547D/22
- TATL 18.12.79 TALRES DEV NA NV B03 D13 E13 = J5 6097-297
Crystalline tri:chloro-tri:deoxy-galacto-sucrose - 48097D/27
- * TAVO- 31.08.78 TAVOLEK INC B04 C03 D16 *US 4287-179
Vaccinating fish against enteric red mouth - 69724D/38
- TEEP 28.09.77 TEE PAK INC A97 D12 = CA 1105-311
Internally coated cellulose sausage casings - 13989B/07
- TEEP 14.11.79 TEEPAK INC D12 = DK 8004-842
Sausage casing shirring on turret with automatic closure - 38660D/22
- TELN- 22.08.78 TELNITE KK D15 = J8 1035-919
Treatment of waste water contg. heavy metals - 26306C/15
- * TENC 05.03.80 TENNECO WEST INC D13 *GB 2070-911
Machine for hulling pistachio nuts - 68435D/38
- TEXC 11.10.77 TEXACO DEV CORP A25 D25 E16 (A97) = GB 1597-899
Amphoteric surfactants having good solubility at isoelectric point - 08033B/05
- THET- 21.02.78 THETFORD CORP D15 X26 (D22) = EP G003-879
Water purifying appts. - 65005B/36
- THIE/ 02.08.74 THIELE W D25 E34 = DD -114-051
Hydrogen peroxide adduct prodn. - 58859W/36
- * THOM 29.02.80 THOMAE K GMBH B02 C02 D22 E13 (D13) *EP --35-161
2-Thiazolyl-2-pyrimidinyl:ureido-acetamido cephalosporin derivs. - 68211D/38
- THOR/ 06.04.76 THORSELL W B05 D21 (B03) = CA 1105-380
Aromatic (alpha)-hydroxy-amides used as insect repellants - 76194Y/43
- TNSI- 27.04.78 TNS INC D12 #BE -888-594
Animal stunning gun with pneumatically extendible needle - 67490C/38
- * TOAD- 29.12.79 TOA DORO KOGYO KK D15 L02 *J5 6096-755
Cement additive for solidifying aq. organic sludge - 68788D/38

- * TOAY 28.06.69 TOA YAKUHI KOGYO KK B07 D14 J04 *J8 1035-928
Water-dispersible granules mfr. - 69134D/38
- TOSU- 23.12.77 TOYO SUISAN KK D11 = CA 1105-314
Forming dried foamed noodles - 49509B/27
- * TOWS/ 20.09.78 TOWNSEND M S A96 D22 E24 S03 *US 4287-153
Disposable article for absorbing bodily excretions - 69709D/38
- * TOXF 27.12.79 TOHO BESLON KK A97 D22 E19 F09 *J5 6096-998
Deodorising and mildew proofing paper - 68862D/38
- TOXN 12.01.79 TOYO JOZO KK A60 B04 D16 E13 = US 4287-345
Polyfunctional di:sulphide contg. 2 benzothiazolyl and 2-pyridyl - 53690C/31
- TOXN 09.11.79 TOYO JOZO KK B04 D16 J04 S03 (S05) = DK 8004-750
Simultaneous pass through analysis - 38415D/22
- * TOXW 31.12.79 TOYO INK MFG KK A97 C03 D22 *J5 6097-201
Insecticidal repellent - 68865D/38
- * TOYJ 29.12.79 TOYO SODA MFG KK C03 D22 E16 F09 (D15) *J5 6097-203
Algae and microorganism controller - 68867D/38
- * TOYM 10.08.72 TOYOBOK KK D15 *J8 1035-954
Waste water treatment - 69140D/38
- TRAN- 22.06.78 TRANSFRESH CORP A92 D13 = CA 1105-317
Extending storage life of vegetables - 03778C/03
- * TSUH 30.12.79 TSUKISHIMA KIKAI KK A97 D15 *J5 6097-600
Waste sludge treatment - 68943D/38

- * UCAR= 20.04.79 UKR CARBON CHEM INS A97 D15 J01 (A12) *SU -791-394
Flocculant for beneficiating coal muds - 69268D/38
- * UEDA/ 28.12.79 UEDA S B04 D16 *J5 6096-696
Ribonucleic acid prep. - 68772D/38
- UENS 17.03.77 UENO SEIYAKU OYO KE D13 E17 = CA 1105-307
Preserving cheese preparations with powder preservative - 36606A/21
- * UFAP 26.04.79 UFA PETROLEUM INST D22 E12 H01 (D15) *SU -791-621
Sulphate-reducing bacteria growth prevention - 69328D/38
- * UFOD= 03.11.78 UKR FODDER IND RES D14 T06 X25 *SU -791-368
Combined fodder granulation control appts. - 69263D/38
- UGIN 04.02.77 PROD CHIM UGINE KUHLMANN D18 E21 F06 = GB 1598-211
Water soluble poly:azo dyes for animal fibres esp. leather - 56780A/32
- UGIN 04.02.77 PROD CHIM UGINE KUHLMANN D18 E21 F06 = GB 1598-212
Water soluble poly:azo dyes for animal fibre esp. leather - 56781A/32
- UKSO- 23.08.68 UK SEC SOCIAL SERV B04 D16 = NL -167-725
Antitumour l-asparaginase isolated from bacterial - 12628R/08
- UKSO- 23.08.68 UK SEC SOCIAL SERV B04 D16 = NL -167-726
Antitumour l-asparaginase isolated from bacterial - 12628R/08
- * ULTI- 20.02.80 ULTIMATE RESOURCES D16 J01 *WP 8102-394
Composting system for scrubbing gas effluent - 69819D/38
- * UMEA= 11.06.79 UKR MEAT DAIRY RES D12 *SU -791-363
Slaughterhouse waste processing for use in feedstuff - 69259D/38
- * UNAT= 16.04.79 UKR NATURAL GAS RES D15 E19 H01 *SU -791-644
Water-soluble salt pptn. inhibition - 69343D/38
- UNIC 27.03.74 UNION CARBIDE CORP D12 = NL -167-579
Shirred sausage casing stick with end plug - 47636W/28
- UNIC 23.12.76 UNION CARBIDE CORP A92 D12 = GB 1598-313
Turning flexible tubular skin, e.g. sausages inside-out - 45822A/26
- UNIC 02.10.79 UNION CARBIDE CORP D15 = J5 6097-528
Appts. for contacting liquid with gas - 34735D/20
- UNIC 02.10.79 UNION CARBIDE CORP D15 = J5 6097-531
Gas liq. contact appts. - 27654D/16
- UNIC 18.01.80 UNION CARBIDE CORP A96 D22 (A23) = US 4286-586
Orthopaedic cast or splint, or bandage for applying cast - 64989B/36
- UNIL 18.04.77 UNILEVER LTD D21 E19 = CA 1105-837
Aq. hair shampoo inhibiting fat distribution - 76863A/43
- UNIL 26.04.77 UNILEVER LTD D21 E33 = CA 1105-939
Antiperspirant cpd. prep. - 80480A/45
- UNIL 18.10.77 UNILEVER LTD A96 D22 (A25) = CA 1105-831
Particulate absorption material with improved wettability with blood - 31891B/17
- UNIL 26.10.77 UNILEVER LTD A97 D25 (A14 A25) = CA 1105-346
Stain removing compsn. esp. for use in cold rinse - 33336B/18
- UNIL 14.12.79 UNILEVER NV D25 E19 (E34) = J5 6098-299
Detergent compsn. contg. sec. alkane sulphonate - 48117D/27
- * UNIL 28.02.80 UNILEVER NV D12 *WP 8102-378
Prodn. of water-holding protein material - 69816D/38
- UNIO 18.01.77 UCB SA B02 C02 D13 = SU -791-245
Spiro-thiopyran or-pyran penicillin derivs. - 53860A/30
- UNTC 17.10.77 ECODYNE CORP D15 = CA 1105-845
Clarification tank with circumferential inlet trough - 89470A/49
- UNTC 26.12.79 ECODYNE CORP D15 = J5 6097-511
Liq. sedimentation and clarification appts. - 50257D/28
- * UNVO 25.02.80 UOP INC D17 J01 *US 4287-001
Reducing disintegration of oxide bound aluminosilicate adsorbent - 69636D/38
- * USAT 30.06.76 US DEPT OF ENERGY A96 B04 D16 *US 4287-305
Immobilisation of live microorganisms - 69775D/38
- USDC 26.04.78 US SEC OF COMMERCE D16 = CA 1105-405
Fermentation tank adapted for continuous flow - 41427C/23

UTIR- 16.04.75 UTIR SRL C04 D16 = CA 1105-912
 Stable odour-free organic fertilizer - 66822X/36
 *UTIR- 09.04.76 UTIR SRL C04 D13 F09 J01 (C03) *CA 1105-913
 Automatic treatment of solid city waste - 68017D/38
 *UWAT= 10.04.78 UKR WATER TRANSPT D15 *SU -791-634
 Biological purificn. of waste water - 69337D/38
 UYMO- 19.11.79 MONTANA STATE UNIV C03 D16 = DK 8004-898
 Cork elm disease treatment - 40217D/23
 *UYNY- 14.04.80 NEW YORK STATE UNIV A60 B05 D21 E14 (D22) *US
 4287-191
 5-Acyl-salicylanilide derivs. - 69730D/38
 *UYPE= 02.10.78 PETROZAVODSK UNIV D14 *SU -793-463
 Separating equipment for cabbage hearts and outer leaves - 69515D/38

VENT- 13.11.79 VENTREX LABS INC B04 D16 S03 (S05) = DK 8004-813
 Appts. for carrying out solid-phase assays - 53644D/30
 *VITE= 05.09.77 VITEB AGRIC STATION C03 D13 *SU -791-365
 Prodn. of cattle feed additive - 69261D/38
 VNOR/ 09.08.78 VON NORDENSKJOLD R D15 = US 4287-062
 Biological sewage treatment - 13286C/08
 *VODG= 30.08.77 VODGEO WATER SUPPLY D15 T06 *SU -791-649
 Primary sewage settling tank residue discharge control appts. -
 69347D/38
 *VODO= 28.12.79 VODOKANAL WATER-CAN D15 *J5 6097-512
 Sludge removal automatic control for sewage - D/38
 *VOLG= 20.04.79 VOLGODON SURFACTANT D15 (D16) *SU -791-640
 Water purificn. appts. bacterial slime prodn. - 69340D/38
 *VORO/ 22.03.79 VOROBEOVI D15 E33 J01 *SU -791-626
 Removal of beryllium from waste water - 69329D/38

WABA- 23.08.79 WABAG WASSERREINIGU D15 J01 = DE 2934-117
 Filter which can be cleaned by reverse washing - 27580D/16
 *WALL/ 29.03.79 WALLACE W A D15 *US 4287-026
 Desalination of salt water - 69646D/38
 *WASS- 07.05.79 INST WASSERWIRTSCHA D15 *DD -149-057
 Clear sludge and liq. manure treatment - 68037D/38
 WATE- 22.05.75 WATER TECHN SERVICE D15 J01 X25 #BE -888-647
 Electrical water softener with insulated filter - 83042V/48
 *WATE= 12.12.78 WATER SUPPLY CANAL D15 T06 *SU -791-632
 Aq. waste oxidn. tank load control appts. - 69335D/38
 *WATE= 20.02.79 WATER SUPPLY CANAL D15 T06 *SU -791-637
 Sewage active ooze concn. photoelectric control appts. - 69338D/38
 *WAUK- 29.10.79 WAUKEE ENGI CO INC D15 J01 *US 4287-063
 Oil water separator - 69667D/38
 *WEBE/ 00.00.77 WEBER F D15 (D16) *DE 3007-064
 Small farmyard manure gas plant - 68080D/38
 WEHT/ 13.02.79 WEHTJE F C03 D13 = DD -149-014
 Treating fibrous plant material with aq. alkali soln. - 60957C/35
 *WEIN/ 22.05.79 WEINHAUS R S D12 *US 4286-354
 Meat grain three dimensional template resting on meat - 69542D/38
 *WEIS/ 11.02.80 WEISSFLOG G B05 D21 E11 (E33) *DD -149-019
 Anticaries dentifrice preparations in paste form - 68020D/38
 WELC- 13.09.77 WELCH FOODS INC B07 D13 E24 (B04 D21) = NL -167-714
 Anthocyanin pigment recovery from plant materials - 24208B/13
 WELL- 21.05.76 WELLINGTON CHEM IND D22 E19 = CA 1105-250
 Deodorising compsns. for chemical smells - 84665Y/48
 *WESS 00.00.77 WESTFALIA SEPARATOR AG D14 (D16) *DE 3008-132
 Fruit flesh and skin separator - 68123D/38
 WILL/ 02.05.79 WILLIAMS B E A97 D12 F07 #CA 1105-313
 Shrouding freshly skinned carcass - 61508B/33
 WINT- 23.03.79 WINTERSHALL AG D16 E13 H01 #US 4286-660
 Oil extn. by flooding with water - 61639B/34

YAMA 18.08.78 YAMANOUCHI PHARM CO A96 D22 (A14) = US 4287-
 177
 Protective covering material for wounds - 15030C/09

*ZEME/ 29.05.80 ZEMEK J B04 D16 *CS 8003-770
 Supports for biologically active cpds. - D/38
 *ZUFF/ 11.06.80 ZUFFA A B04 C03 D16 *CS 8004-105
 Avirulent virus of Aujeszky disease - D/38

H		T		IL -43-145 X34		47636-W D		CS 7601-640 B33		39665-Y DE		CA 1105-689 D38		ZA 7704-517 A29	
07877-H BCD		11212-T DEH		GB 1448-695 X37		US 3892-869 W28		SU -676-177 C13		US 4025-453 Y22		90111-Y DE		DS 2633-666 A39	
J7 2019-753 T23+		BE -771-038 T07+		SU -650-494 B47		BE -827-211 W42		CH -623-356 D25		DE 2704-990 Y33+		BE -857-881 Y51		PT --66-849 A47	
SU -296-323 T30		NL 7110-917 T08		J8 1035-882 D38		NL 7503-631 W42		HU T020-620 D38		NL 7701-243 Y34+		DE 2736-903 A09		AT 7705-440 C02	
J7 3023-888 U29		DE 2139-477 T08		41710-V ADG		DE 2513-363 W42		81230-X ADEG		SE 7701-338 Y38+		NL 7709-091 A10		US 4206-243 C24	
CA -942-697 V10+		J4 7004-561 T11		BE -810-085 V23		SE 7503-575 W47		BE -840-903 X44+		J5 2110-287 Y43+		SE 7709-046 A13		J8 0030-354 C36	
J7 4016-931 W32+		FR 2102-540 T28		DE 2403-192 V31		NO 7501-064 W48		NL 7604-180 X45+		FR 2340-371 Y47+		DK 7703-653 A17		IL --52-594 C47	
NL -167-727 D38+		DD -92-039 T43		NL 7400-831 V32		DK 7501-308 X02		DE 2616-670 X45+		ZA 7700-687 A04		ZA 7704-818 B18		HU T019-113 C51	
R		FR 2146-650 U19		FR 2214-737 V46		FI 7500-926 X04		BR 7602-350 X46+		GB 1573-143 C33+		FR 2401-987 B23+		CS 7704-982 D01	
12628-R BD		CH -534-670 U22		J4 9099-341 W12		BR 7501-797 X04		SE 7604-387 X49		GB 1573-144 C33+		GB 1568-420 C24		GB 1584-194 D07	
BE -737-859 R08		GB 1358-095 V26+		US 3873-333 W14		FR 2274-224 X14		NO 7601-274 X50+		CA 1105-657 D38		CA 1105-347 D38		CA 1101-724 D25	
NL 6912-879 R09		CA -952-122 V33+		GB 1418-241 W51+		ZA 7501-927 X17		J5 1128-685 X52+		CA 1105-206 D38+				SU -791-257 D38	
DE 1942-900 R15		J7 5005-689 W14+		GB 1419-482 X01		FI 7602-396 X52		DK 7601-733 Y02+		46851-Y BD		Z		12264-A BCDE	
FR 2016-312 R35		CS 7105-701 X14		DS 2403-192 Y04		CH -590-613 Y36		FR 2307-789 Y07+		US 4031-206 Y26		65183-Z BDE		BE -857-607 A07	
GB 1258-063 S50		RO -62-196 A03+		J7 7024-054 Y29		GB 1495-342 Y50		PT --65-022 Y17+		BE -850-429 Y29		BE -720-629 Q00		DE 2635-802 A08	
J7 2015-742 T19		US 4177-208 B50+		CA 1022-547 A01		DK 7704-012 A01		ZA 7602-286 Y19		DE 2703-731 Y33		GB 1246-644 S36		J5 3021-223 A15	
CH -518-318 T20		US 4178-307 B51		NL -167-717 D38		CH -596-772 A15		GB 1500-341 A06+		NL 7700-424 Y34		J7 4010-755 V14		FR 2361-480 A19	
US 3660-238 T21		SU -791-225 D38		48999-V D		CH -596-771 A15		US 4104-464 A47+		J5 2105-293 Y41		J7 5034-116 W50		US 4127-455 A49	
CA -923-056 U14		14480-T DE		DE 2363-291 V27+		DE 2560-018 A49		AT 7602-867 A48+		DK 7700-169 Y43		J7 5038-697 X02		GB 1582-042 D01	
DS 1942-900 Y43		BE -771-516 T09		FR 2210-574 V41+		AT 7502-319 B09		CH -610-591 B20+		FR 2340-098 Y47		J7 6021-055 X30		CA 1105-875 D38	
NL -167-725 D38+		NL 7116-800 T27		NL 7404-782 V43		CA 1052-619 B20		CA 1055-933 B25+		GB 1521-945 A34		DS 1792-496 Y46		16635-A DE	
NL -167-726 D38+		DE 2149-522 T30		J4 9083-257 W09		CA 1055-771 B25		SU -791-248 D38+		CA 1092-042 D05		GB 1247-829 S38		J5 3005-113 A09	
S		DD -92-778 T46		J4 9084-050 W09		AT 7800-005 B35		90942-X BDE		NL -167-728 D38		GB 1248-380 S38		J8 1036-186 D38	
11368-S ADF		FR 2117-760 T46		J4 9127-469 W21		IT 1034-629 C01		DE 2621-076 X49		50063-Y D		J7 9013-494 B26		19762-A DE	
NL 7011-148 S06		CH -543-279 V03		US 3931-007 X03+		NL 8005-087 D05		NL 7605-081 X49		US 4033-341 Y28		NL 7900-737 B28		DS 2700-568 A11	
DE 2037-813 S08		GB 1365-140 V35		J7 6022-307 X32		NL -167-579 D38		NO 7601-621 Y01		GB 1550-280 B32		NL 7900-738 B28		BE -862-716 A28	
FR 2055-680 S32		CA -955-177 V41		J7 6039-940 X48		58859-W DE		SE 7605-429 Y01		CA 1105-792 D38		NL 7900-739 B28		NL 7800-173 A30	
US 3630-205 T05		DS 2149-522 Y20		GB 1457-528 X49+		DD -114-051 W36		J5 1139-687 Y03				NL -160-708 B31		SE 7800-156 A33	
ZA 7005-280 T14		IT 1024-511 A39		CA 1017-083 Y38+		DD -114-051 D38		BE -841-750 Y06		61156-Y ADF		NL -165-915 D08		J5 3091-153 A37	
GB 1305-420 U05		NL -167-593 D38		NL -167-662 D38		74395-W DEG		FR 2310-986 Y10		BE -851-685 Y35		NL -166-177 D11		FR 2376-631 A41	
CA -968-244 W23		32772-T DE		59824-V AD		DE 2516-116 W45		DK 7602-087 Y10		DE 2703-876 Y36		NL -167-580 D38		AT 7709-163 C49	
J7 8014-649 A24		DE 2154-215 T21		BE -808-961 V34		BE -828-087 W45		DD -125-069 Y23		NL 7702-052 Y37				GB 1598-253 D38	
DS 2037-813 B13		NL 7115-066 T21		ZA 7309-241 V47		NL 7503-562 W45		US 4065-353 A02+		SE 7702-049 Y40		A		25129-A BD	
NL -167-596 D38		J4 7011-024 T24		NL 7317-538 V49		FR 2268-072 X06		ZA 7602-783 Y19		J5 2103-386 Y41		00100-A AD	US 4078-053 A13	CA 1105-388 D38	
1910-S DM		FR 2112-455 T41		DE 2365-263 V50		DK 7405-331 X06		CA 1069-844 C07		FR 2342-365 Y50		BE -858-225 A01		27299-A AD	
BE -754-457 S06		GB 1351-467 V18		DK 7306-888 W03		AT 7403-311 X10		DS 2621-076 C17		BR 7701-120 A02		DE 2710-437 A38		DE 2744-728 A15+	
ZA 7003-836 S09		US 3845-133 V45		FI 7303-740 W16		GB 1507-703 A16		IT 1046-399 C35		PT --66-153 A12		J5 3112-994 A45		BE -859-399 A15+	
DE 1961-562 S26		CH -582-514 Y02		GB 1397-678 W25		IT 1032-732 B40		CH -621-149 D10		CA 1105-656 D38		FR 2383-201 A50		NL 7710-945 A16+	
NL 7017-989 S26		DS 2154-215 D10		CA -993-752 X34		CH -616-703 C22		CS 7603-165 D30				DS 2710-437 B38		J5 3052-699 A25	
DD -84-117 S42		J5 6097-219 D38		CH -604-573 A41		NL -167-718 D38		SU -784-761 D33		71584-Y ADK		GB 1598-154 D38		FR 2366-807 A27+	
FR 2072-986 T01		35468-T DE		NL -167-745 D38		X		HU T020-556 D38		J5 2101-400 Y40+		02693-A CDEF		CA 1100-745 D23	
CH -538-552 U40		BE -775-625 T22		79238-V BCD		50060-X DJ		92386-X D		J8 1035-837 D38+		J5 0135-223 A02		GB 1597-102 D36	
GB 1333-229 U41		J4 7010-819 T22		BE -814-267 V46		BE -838-339 X27		BE -842-201 X50		76194-Y BD		J8 1036-170 D38		GB 1597-103 D36	
DS 1961-562 B24		NL 7114-944 T23		NL 7405-514 V46		NL 7601-256 X35		DE 2625-358 X51		DE 2714-671 Y43		03966-A CDE		GB 1597-104 D36	
NL -167-734 D38		DE 2152-015 T24		DE 2419-801 V47		DE 2604-371 X36		NL 7606-129 X52		SE 7604-030 Y46		US 4065-402 A02		GB 1597-105 D36	
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DE 1958-123 S21		GB 1309-490 U11		US 3856-937 W01		FR 2227-277 W08		J5 1148-670 Y06		BR 7702-081 Y48		CA 1105-349 D38+		GB 1597-101 D36+	
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E 2834-899 C08	BE -879-956 C23		EP -17-314 C44	11743-D BD		NL 8006-893 D32	EP -28-897 D22
E 2857-345 C15	WP 8101-094 D20+	60957-C CD	J5 5156-586 D07	US 4247-703 D07	27654-D D	PT -72-229 D32	NO 8003-312 D26
S 2834-899 C46	PT -70-449 D27+	EP -14-691 C35+	US 4287-306 D38	US 4287-302 D38	EP -26-493 D16	FR 2471-772 D33	GB 2066-639 D29+
S 4287-062 D38	NO 7903-624 D27+	NO 7901-761 C40			J5 6097-531 D38	DE 3046-277 D38	J5 6092-757 D37
	BR 7909-047 D38+	SE 7904-449 C40	79202-C ADG	13671-D BD			DK 8004-759 D38
		DK 8000-618 C41+	EP -17-794 C45	WP 8100-261 D08	27667-D ADE	34645-D D	
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E 2927-893 C08	US 4205-133 C23	DD -149-014 D38+	DK 8001-518 C49	GB 2070-243 D36	J5 6095-995 D38	J5 6062-898 D29	EP -28-900 D22
NL 7905-651 C08	BR 7902-574 B46		BR 8002-154 C50	US 4287-300 D38		US 4287-101 D38	GB 2063-268 D23+
GB 2027-326 C08+	ZA 7902-019 C39	64548-C BD	FI 8001-030 D01		28954-D ADJL		NO 8003-311 D26
E 7906-338 C11	CA 1105-405 D38	EP -14-929 C37	PT -71-048 D20	13711-D D	US 4259-417 D16	34735-D D	J5 6085-295 D35
R 2431-834 C19		PT -70-813 C36	CS 8002-424 D38	BE -884-669 D09	GB 2071-399 D38	EP -27-912 D20	DK 8004-760 D38
S 4286-605 D38	41742-C D	J5 5108-300 C40		PT -71-649 D10		J5 6097-528 D38	
717-C D	DE 2946-216 C24	DK 8000-634 C41	79341-C BCDG	EP -28-846 D22	28973-D AD		38590-D BD
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P -8-554 C10+	SE 7811-840 C27	BR 8000-886 C45	WP 8002-293 C46	FR 2469-453 D29	J5 6094-324 D37	EP -28-038 D20	J5 6082-089 D34
R 2433-574 C22+	GB 2038-771 C31	DE 2905-531 D03	NO 8003-755 D11	DK 8003-296 D38	EP -35-080 D38	US 4284-532 D36	DK 8004-814 D38
A 1105-318 D38+	FI 7903-562 C34	ZA 8000-765 D17	US 4278-206 D31			J5 6095-997 D38	
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B 2028-662 C11	45162-C D	BE -888-594 D38	WP 8002-235 C46	15576-D DE	NL 8005-291 D17	NO 7903-481 D25	NO 8003-420 D27
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R 2433-561 C22	FR 2475-521 D38+	68316-C AD	NO 8003-776 D11	GB 2065-108 D26	NO 8002-947 D21		DK 8004-842 D38
S 4287-177 D38		GB 1575-527 C39	BR 8008-461 D16	US 4285-349 D37	SE 8006-869 D22	36705-D BDE	
		CA 1105-688 D38	DK 8005-294 D38	US 4287-081 D38	FR 2466-280 D25	EP -28-525 D21	40195-D CDE
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L 7811-368 C18	FR 2443-869 C40	GB 1579-324 C47	GB 1579-324 C47	BE -885-877 D10	30821-D BD	J5 6097-212 D38	BR 7909-049 D38
P -10-235 C19	GB 2043-479 C41	DE 2945-878 D23+	DE 2945-878 D23+	WP 8101-248 D22	BE -885-778 D18+		
S 5053-231 C22	J5 5116-412 C43	NL 7908-469 D27+	NL 7908-469 D27+	BR 8008-901 D38	WP 8101-100 D20+	36707-D CD	40215-D AD
K 7904-291 C23	DS 2854-168 D06	FR 2469-130 D29+	FR 2469-130 D29+		FR 2467-597 D27	EP -28-535 D21	BE -886-241 D23+
R 7906-592 C31	US 4276-168 D29	DK 7904-731 D38+	DK 7904-731 D38+	17404-D D	NO 8101-994 D38+	NO 8003-321 D26	WP 8101-353 D24+
D -146-283 D18	HU T020-501 D38			WP 8100-341 D10+		SE 8007-789 D27	US 4273-790 D27
S 4270-008 D24		64203-C D		GB 2070-907 D38+	30825-D AD	GB 2065-443 D27	NL 8006-316 D27+
A 1105-945 D38	46248-C CD	US 4231-926 C47	86357-C DJ		BE -886-685 D18	FI 7903-479 D30	SE 8007-997 D28+
	BE -881-647 C27+	US 4286-884 D38	WP 8002-458 C48	17487-D D	BR 8007-952 D29	DK 8004-702 D38	GB 2066-641 D29+
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E 2911-745 C12+	PT -70-817 C36+	69833-C DJ	EP -35-013 D38	PT -71-994 D20+	PT 8006-622 D32	38305-D D	FI 8003-590 D34+
B 2029-812 C13+	DE 3005-020 C36+	DE 2907-319 C40		US 4268-389 D23	PT -72-196 D32	DE 2945-361 D22	DE 3043-656 D35+
S 5039-218 C18	J5 5108-259 C40+	EP -15-416 C41	86397-C BD	DE 3043-090 D23+	FR 2471-999 D33	EP -29-165 D23	DK 8004-929 D38
R 2436-109 C26+	DK 8000-579 C40+	DK 8000-774 C42	BE -884-456 C49	GB 2063-236 D23+	DE 3045-225 D37	FI 8003-451 D30	
S 5102-488 C38	SE 8001-062 C40+	J5 5116-402 C43	PT -71-612 D06	NO 8003-438 D27+	J5 6097-450 D38	DK 8004-431 D38	
B 1035-913 D38	GB 2046-567 C47+	EP G015-416 D38	DE 3019-448 D08	NL 8005-294 D27+			40217-D CD
306-C D	FR 2448-299 C48		GB 2054-374 D08	FR 2469-383 D29+	30831-D AD		BE -886-253 D23+
S 5028-748 C15	FR 2459-006 D14+	71801-C DJ	J5 6022-733 D17	DK 8004-534 D38+	BE -886-709 D18	DE 3030-356 D22	GB 2065-128 D26+
B 1035-919 D38	DD -149-015 D38+	DE 3002-417 C41+	FR 2462-164 D19		BR 8008-287 D31	BR 8004-956 D26	NL 8006-286 D27+
296-C DE		NL 8001-303 C42+	CS 8005-266 D38	19389-D D	NO 8003-870 D32	NO 8003-419 D27	US 4277-462 D30
S 5036-423 C17	48044-C D	SE 8000-739 C46+		BE -886-059 D12	NL 8006-732 D32	NL 8004-083 D27	FR 2469-873 D30+
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	CA 1099-576 D20	FR 2452-304 D04+	EP -19-216 C49	FR 2469-129 D29	SE 8008-750 D32	FI 8003-411 D30	
	CA 1105-309 D38+	J5 5167-015 D10+	DE 2920-526 C50	FI 8003-425 D30	FR 2471-780 D33	DK 8004-839 D38	40238-D D
092-C CD	51841-C CD	DD -149-024 D38+	J5 5155-706 D06	DK 7904-779 D38	GB 2068-224 D33		BE -887-149 D23
P -10-348 C19	DE 2900-591 C30		US 4287-069 D38		DE 3046-442 D36	38404-D BD	GB 2068-774 D34
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K 7903-619 C19	J5 5094-310 C35	BE -882-632 C42		US 4253-929 D12		SE 8007-818 D27	FR 2475-029 D37
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A 7904-449 C51	BR 8000-094 C47	DE 3013-246 C43				J5 6068-391 D30	
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		PT -71-064 C47				DK 8004-718 D38	

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SE 8009-025 D37
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SE 8001-512 D28
DK 8003-095 D38

40731-D BD
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J5 6096-249 D38

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NL 8100-405 D36
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SE 8008-455 D30
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45990-D BCD
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GB 2065-663 D27+
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FI 8003-870 D34+
US 4287-120 D38

46414-D BD
GB 2065-130 D26
EP --30-844 D27
J5 6097-295 D38

47823-D D
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GB 2066-071 D28+
FR 2471-775 D33
J5 6092-805 D37+
DE 3047-649 D38+

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NL 8006-920 D32
FR 2471-996 D33
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49988-D BD
DE 3031-990 D28+
GB 2066-260 D28+
SE 8005-679 D33+
FR 2472-609 D34+
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GB 2066-074 D28
J5 6096-700 D38

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J5 6097-511 D38

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62289-D BD
WP 8102-105 D34+
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GB 2071-104 D38+

64695-D D
GB 2070-202 D36+
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EP --35-152 D38

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67983-D ADEF
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67991-D D
BE -888-698 D38

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68012-D AD
CA 1105-652 D38+

68014-D D
CA 1105-663 D38+

68017-D CDFJ
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DE 3007-878 D38

68123-D D
DE 3008-132 D38+

68128-D D
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68152-D DL
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68161-D D
DE 3028-039 D38

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68324-D BD
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68330-D DEF
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68351-D D
FR 2475-391 D38

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68357-D D
FR 2475-417 D38+

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CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

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WEEK D39
11 NOVEMBER 81
69842D - 71766D

ABSTRACTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	7 SEP - 13 SEP 81	887,797 - 887,905
-Non Delayed	28 AUG 81	888,742 - 888,833
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SOUTH AFRICA*	AUGUST 81	7,901,755 - 8,102,073

*Includes numbered Basics from Week D30



Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code		Main CPI Class for Section		Patent No	
Patentee Name		Latest Priority		Earliest Priority	
Other Classes		Earliest Disclosure Basic Patent		IPC	
Publication Date		Accession No			
MEDA-		A89		69369W/42 =US 3964-992	
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)					
MEDAC GES KLINISCHE		11.10.74-DE 448552 (31.12.73-DE-365284)			
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26					

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

WERN ★ D11 69875 D/39 ★ BE -888-805
Bakery oven using reversible flow heating air - which is always directed diagonally upwards through prod. to be baked
WERNER & PFLEIDERER 29.05.80-DE-020374
(28.08.81) A21b

14.05.81 as 888805 (448KB)

A bakery oven has a baking chamber with flat, vertical walls. An air heater and a fan are installed on top of the oven to circulate hot air through the baking chamber. Two opposed walls of the chamber are perforated so that hot air can be blown through one and extracted through the other. To this end an air duct covers the exterior of each of the walls, one duct connected to the delivery outlet of the fan heater and the other to the suction inlet. These connections are periodically reversed so that air flow through the chamber changes direction.

Whichever one of the ducts is connected to the delivery outlet is supplied with air only at the bottom of the duct. The other duct is connected to the suction inlet of the fan heater only at the top of duct. These conditions remain satisfied when airflow direction is reversed, so hot air always rises diagonally between the two walls. (21pp)

STAU ★ D11 69885 D/39 ★ CA 1106-224
Protein fortified doughnut compsn. - contg. whey protein concentrate to increase specific volume and fat absorption
STAUFFER CHEMICAL CO 18.11.77-US-853000
(04.08.81) A21d-13/08

30.10.78 as 314958 (955PW)

A protein fortified cake doughnut formulation contains (a) a cake doughnut base; (b) an effective amt. of at least one proteinaceous additive, and (c) an effective amt. of a whey protein concentrate to increase the specific volume and fat absorption of the doughnut prod. compared to a similar prod. not contg. (c).

Addn. of the whey protein offsets the depressing effect of the protein additive on specific volume and fat absorption. (14pp)

HIRT/ ★ D11 69911 D/39 ★ DD -149-153
Cracker cutting machine - with cruciform rotatable magazine feeding circular saws

HIRTE 22.02.80-DD-219205

(01.07.81) A21c-15/04

22.02.80 as 219205 (39PW)

An automatic portioning and dividing machine for strips of crackers, as they leave the baking oven consists of a cruciform magazine in which the strips are stored. When one springloaded arm of the magazine is full, it is turned through 90 deg. to place an empty arm under the charging conveyor and place the full arm facing a shaft with circular saws.

These perform the saw cuts into squares and the cut crackers are discharged on a conveyor to the packing machine. This reduces the labour requirement and the floor space by fully mechanised operation. (8pp)

SIDO/ ★ D11 70255 D/39 ★ EP --35-978
Gluten free baked goods prodn. - using potato flour and opt. other starchy material instead of cereals

SIDOTIF 07.03.80-IT-048101

(16.09.81) A21d-02/18 A21d-13/06

06.03.81 as 830035 (1251BZ) (E) No-Citns. E(AT BE CH DE FR GB LI LU NL SE)

Baked goods are made by first dry mixing potato flour and sucrose, then adding whole cows milk, and very slowly heating the resulting soln.-suspension, while mixing, until it thickens. The thickened mixt. is cooled, then poured, together with edible animal fat and opt. salt, into one portion of an amylaceous or starchy flour (A), completely free of wheat, barley, oats, or rye gluten. The compsn. is mixed and then yeast diluted with water gradually mixed into the dough, and a second portion of (A) also gradually mixed in. The resulting dough is then finished by conventional shaping, leavening, extruding, cooking, etc.

The process is used to make bread, bread sticks, rusks, etc. which are gluten-free so can be consumed by persons with coeliac disease or nephrosis. Despite the absence of gluten doughs which are easy to mix and which leaven well are obtd. (8pp)

BONG/ ★ D11 70262 D/39 ★ FR 2475-85
Bakery which simultaneously bakes loaves and special prods. using two different ovens and common proving chamber

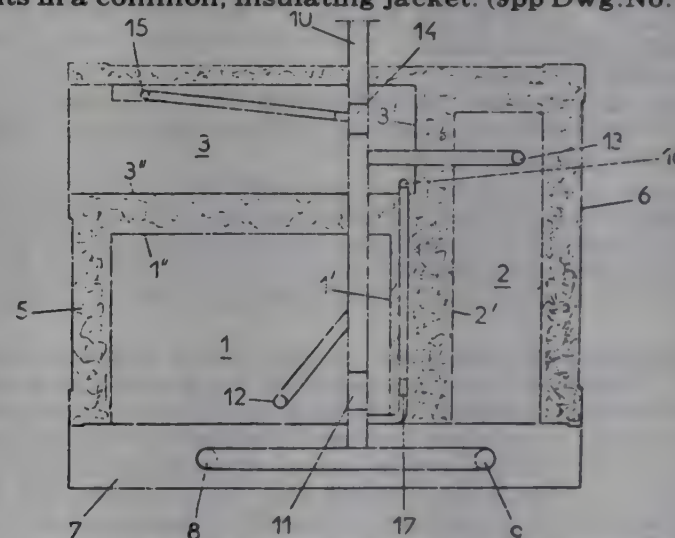
BONGARD P 19.02.80-FR-003881

(21.08.81) A21b-01 A21c-13

19.02.80 as 003881 (448DH)

One of the ovens is for baking a large output of mass-produced loaves or patisserie prods. while the second oven simultaneously bakes prods. of a more individual nature. The proving chamber is available for processing the prods. for either oven or both. One of the ovens is now of the type which receives a trolley, the other oven has a fixed hearth plate. The ovens are both equipped with heat exchangers and a vapour generator supplies vapour to both ovens and as required to the proving chamber.

A system is from the ovens and from the proving chamber as necessary. The ovens and proving chamber are pref. assembled as a transportable, packaged unit on a common supporting frame. The three elements are pref. enclosed in a common layer of thermal insulation inside a single outer casing. A single, vapour extraction hood is pref. fitted on top of the assembly to all three elements. A compact, packaged unit is achieved. Heat consumption is reduced to a minimum by wrapping the combined elements in a common, insulating jacket. (9pp Dwg.No.1)



AKER D11 84405 A/47 = GB 1598-947
Aluminium foil lined baking tin - with flange extensions and cut-outs preventing corner unfolding

AKERLUND & RAUSING A/B 09.05.77-SE-005341

Q32 + Q34 (23.09.81) *DE2819-708 B65d-05/24 + B65d-81/34

09.05.78 as 018412 (006AS)

A tray-like container has one or both pairs of adjacent side walls connected by folded gusset panels, both the walls and the panels having outwardly-projecting edge flanges forming the container rim.

The side walls against which the gusset panels are folded have tabs on their edge flanges, which lie below and support the edge flange of an adjacent wall. Pref. the container is lined with Al foil, as a baking tray. The tabs seal the corners of the flanged rim. (7pp)

KANF ★ D11 71025 D/39 ★ J8 1036-897
Mfg. fat compsn. for icing - by mixing hydrogenated fat, other fats, ester of polyhydric alcohol of fatty acid and sugar and cooling (J5 25.4.75)

KANEGAFUCHI CHEM KK 21.08.73-JP-094197

(27.08.81) A23l-01/19

21.08.73 as 094197 (22KB)

Laurine type hydrogenated fat having m.pt. of 30 deg.C. or higher, other fat, partial ester of polyhydric alcohol of fatty acid, and sugar are mixed with agitation to give emulsion, followed by cooling rapidly. (J50046868) (4pp)

HANS/ ★ D11 71503 D/39 ★ US 4287-801
Perforating english muffins to permit opening - by sets of knives mounted on convergent chain conveyors sandwiching muffins

HANSON DR 04.02.80-US-118509

P62 (08.09.81) B26d-03/30

04.02.80 as 118509 (295BZ)

Muffins are perforated about their equator by contact with at least one and pref. two sets of chain conveyors carrying

projecting knives. The muffins are advanced by a conveyor belt which carries them between the two sets of knives which are arranged to sandwich the muffin. Pref. one set of knives has a linear speed greater than the conveyor belt, and the other a lower speed so that the muffins are rotated during the perforation. Each of the knife conveyor runs is supported by a subframe which can be oscillated laterally during the perforation. The subframes are oscillated out of phase by a single motor with two crank arms.

The appts. makes perforations in an English muffin to enable the user to break it cleanly. The transverse oscillation prevents the muffins from sticking to the knives. (9pp Dwg.No.3)

GROF/ ★ D11 71655 D/39 ★ US 4288-463
Pretzels made from extruded dough strand - rotated about eccentric axis to yield spiral of preselected pitch
GROFFE I 19.02.80-US-122374 (08.06.78-US-913582)
(08.09.81) D21c-11/16
19.02.80 as 122374 (+ 25.01.79-US-006359) (295BZ)

Pretzels are mfd. by extruding the dough to form at least one strand. This is rotated during extrusion about an eccentric axis to wind it spirally. The dough is gravitationally passed downwards during the rotation onto a conveyor belt. The vertical distance between the point of extrusion and the belt is adjustable to change the wound spiral to a selected pitch. The wound strand is carried away by the belt for subsequent baking.

Pref. a plurality of dough strands are simultaneously extruded and are conveyed away on a single conveyor for baking.

The method is simple and is capable of rapid production of high quality pretzels. (7pp)

See Also

D13 J8 1037772

D12: MEAT; FISH PROCESSING

CIND- ★ D12 69846 D/39 ★ BE -887-844
Off/loading live chickens from cages in road transport vehicle - using powerful air current to drive them onto discharge conveyor
CINDAG SA 23.08.80-DE-031827
P14 (09.09.81) A01k A22b
09.03.81 as 887844 (448AT)
Method and installation for offloading live chickens etc. from transporter cages stacked side by side and one above another on the deck of transporting vehicle.

All cages have an exit door, on the same side of the vehicle. The door is opened to lead into a discharge corridor and a current of air is blown through the cage from the end opposite the exit. The air current drives the chickens from the cage into the discharge corridor. Pref. the air speed of the driving current is more than 100 km/h.

The cages are pref. left in situ in the vehicle while the birds are offloaded. The entry corridor can pref. be located by a powered mechanism to communicate with a gp. of cages to be discharged.

Cages remain in situ on the road transport vehicle, used for delivery of birds from a broiler house to an abattoir. Very rapid offloading, e.g. about 8000 birds per hr. is achieved without damaging the birds which do not have to be seized by hand or machine. There is no manhandling of cages which remain in situ on the lorry. (29pp)

WOLF/ ★ D12 69900 D/39 ★ CA 1106-737
Appts. for treating meat products prior to packaging - has rollers having blunt teeth to increase surface area of meat, improve colour and flexibility

WOLFF G G 18.09.78-US-943426
(11.08.81) A22c-09

14.09.79 as 335680 (1044NS)
Appts. includes a continuous foraminous conveyor with two pressure rollers having blunt teeth around their periphery disposed above the conveyor for macerating meat pieces transported along the conveyor. Spring loaded tension plates under the conveyor in corresponding posns. to the rollers apply pressure to the meat pieces passing under the rollers on the conveyor.

Appts. is used to treat cured hams. Cooking and smoking shrinkage is reduced and the use of gelatin is decreased. The distribution of cure, colour and tenderness is improved. The blunt teeth of the rollers enlarge the surface area of the meat pieces and cause an increase in the release of myosin which is the natural binder in meat. (9pp)

MASZ ★ D12 69912 D/39 ★ DD -149-154
De-fleshing machine for bones - with conical sleeve and conical water cooled screw

MASTER MECHANICS CO 20.02.79-PL-213567
(01.07.81) A22c-17/04

20.02.80 as 219162 (39DH)
Machine for use in the meat, fish, fruit and vegetable industries, to separate flesh from bones, consists of a conical sleeve with a conical screw. The screw is hollow and encloses a cooling tube which emerges through a cap at the end opposite to the charge end. A flexible hose joins the chamber, formed by the cap, with an annular chamber near the end of the screw and the discharge pipe.

This tears off the flesh adhering to bones and converts it to a liquid state, thus increasing the flesh yield. (9pp)

FARH D12 66505 B/37 = DS 2960-393
Sausage meat filling device - with calibrating tube and disc maintaining constant filling dia. by braking action

HOECHST AG 04.03.78-DE-809385

(17.09.81) *DE2809-385 A22c-11/02

26.02.79 as 960393 Based on EPG004013 (1438WB)

Appts. for filling a shirred tubular sleeve with a sausage compsn., which is fed under pressure from a stuffing machine filler tube, includes a calibration unit with a hollow calibration tube, a widened end section, and a calibrating element. The calibrating element contacts the inside surface of the widened section of the tube, and the end section next to the opening of the filler tube has a compact circumferential surface. The calibrating tube can move w.r.t. the filler, and the second member is fixed to the filler surface.

The appts. is efficient, and the tubular sleeve width can be controlled during the sausage filling process. (8pp)

HAUS/ D12 60954 C/35 = EP G014-685
Animal fat extn. esp. from slaughterhouse waste - in static column without circulation, using super critical gas extractant

HAUSSENER E 01.02.79-CH-001000

(16.09.81) *EP-14-685 C11b-01/10 C11b-03/02

31.01.80 as 810035 (068NS) (G) CH-565238 GB1058076 US2118454 US2166160 E(AT BE CH DE FR GB IT NL SE)

Animal fats are recovered and/or refined by extraction e.g. of edible grades of offal in a static column in an autoclave without circulation using a gas at supercritical conditions. The gas may be carbon dioxide, nitrous oxide, ethane, ethylene fluorinated hydrocarbon, etc. The extracted fat may be recovered by melting from the base of the column. (5pp)

UNIL D12 69816 D/38 = EP -35-847
Prodn. of water-holding protein material - from defatted oil-seed meal, for stabilising fat emulsions

UNILEVER LTD 28.02.80-GB-006807

(16.09.81) *WP8102-378 A23j-01/14

26.02.81 as 300803 (367JB) (E) US3645745 FR2370439 US4091120 J50137999 1.Jnl.Ref E(GB)

Prodn. of proteinaceous materials with a high water-holding capacity is carried out by (a) treating a defatted oil-seed meal with an aq. soln. having a pH of 6.0-9.0 to solubilise at least part of the protein in the meal; (b) lowering the pH to 2.0-3.0 to dissociate the protein into sub-units; (c) heating at 80-100 deg.C to aggregate the sub-units and form a water-insoluble protein-contg. material; (d) adjusting the pH to 6.0-8.0; and (e) isolating proteinaceous material by ultrafiltration.

The products are useful as thickeners for stabilising aq. fat emulsions, e.g. in the mfr. of simulated meat products, sausages, pate', etc. (10pp)

VIDE/ ★ D12 70268 D/39 ★ FR 2475-855
Machine to strip skin etc. from food prods. e.g. meat, fish - has friction roller cleaned by rotary brush downstream of stripping blade

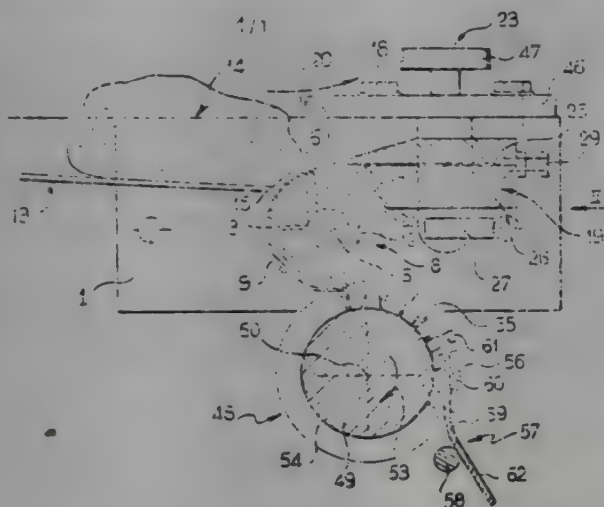
VIDEAU Y 19.02.80-FR-003613
(21.08.81) A22c-17/12 A22c-25/17

19.02.80 as 003613 (448DH)

The prod. is displaced along the surface of a flat feed plate to meet secantly the circumference of a friction roller. The roller carries the prod. against the cutting edge of a stripping blade which is tangential to the roller. The edge of the blade is parallel and opposed to the delivery edge of the feed plate.

The periphery of the friction roller is now cleaned with a stiff-bristled brush as it moves between the blade cutting edge and the edge of the feed plate. Brushing takes place over the full, axial length of the friction roller. Brushing is pref. by means of a roller brush rotating on a longitudinal axis parallel to that of the friction roller. If the friction roller and brush are rotated in the same direction, the bristles meet the friction roller surface travelling in the opposite direction. The linear speed of the bristle tips is pref. greater than the speed at the circumference of the friction roller.

Useful for sepn. of skin, rind, tendons, ligaments, muscle tissue etc. from meat, offal, fish, chicken etc. The machine can handle fish and other fragile skins without becoming jammed. The friction roller is cleaned as effectively but more economically than with compressed air jetting. (20pp Dwg.No.1)



KOLL/ D12 30407 A/17 #GB 1598-706
Sausage skin gathering machine - with three roll head carrying out circular motion around inflated skin mandrel centre

KOLLROSS G 16.10.76-DE-646848 (28.12.77-GB-054040)

A32 (A97) (23.09.81) *DE2646-848 A22c-13/02

28.12.77 as 054040 (006AS)

Appts. for shirring tubular food casings comprises a cantilever mandrel, with a casing stop, over which a casing is shirred by a head having three or more circumferentially spaced rollers with arcuate peripheral grooves which match the surface of the mandrel.

The space between the shirring rollers exceeds the mandrel dia. and the head rotates about an axis eccentric to the mandrel axis, so that the casing is both shirred by the rotating rollers and spiralled by rotation of the head for max. compaction. (7pp)

STAU ★ D12 D/39 ★ J5 6099-775
Protein rich shell meat

STAUFFER CHEMICAL CO 31.12.79-US-108735
(11.08.81)

EXTR- ★ D12 D/39 ★ SE 8000-876
Sausage skins - produced from aq. solns. contg. about a third by weight of gelatin

EXTRACO AB 04.02.80-SE-000876

A97 (07.09.81) A22c-13

04.02.80 as 000876 (903WB)

Thin edible films, e.g. sausage skins, contain more than 30 wt. % of gelatin (I) produced in known manner from bone, etc. A suspension of (I) is treated with softeners, cross-linkers and opt. reinforcing materials and the skins shaped.

TRIO- ★ D12 D/39 ★ SE 8100-618
Fish forward feed in process unit - is along V-shaped groove by conical rollers extending through wall recesses or by belts parallel to walls

TRIO ENG LTD AS 07.02.80-NO-000325

(07.09.81) A22c-25/08

07.01.81 as 000618 (1161WB)

The forward feed is for a fish processing plant, having a V-

shaped groove along which the fish is moved with increasing speed by means of conical rollers projecting through recesses in the groove walls, or by belts the active part of which runs parallel to the walls. This imparts increasing feed speed towards the bottom of the groove and in the forward direction of movement

JACC/ ★ D12 71476 D/39 ★ US 4287-642
Meat tenderising by array of knives - releasably mounted on head and yielding on contact with bone

JACCARD A R 28.12.78-US-974032

(08.09.81) A22c-07

28.12.78 as 974032 (295)

A meat tenderising appts. has a vertically reciprocating head which advances an array of knives to penetrate the meat. Each knife is releasably mounted on the array by a spring assembly which yields if the knife motion is obstructed e.g. by encountering a bone.

Each knife carries a stripper comprising an end plate supported by rods. The rods are attached to a cross-head which slides on the knife and allows the stripper plate to rest on the surface of the meat while the knife is being introduced. The stripper plate also acts as a guide to support the tip of the knife while it is being advanced towards the meat.

The appts. tenderises meat which may contain bones. The knives do not become broken if they contact a bone. (14pp)

CHIB- D12 45316 C/26 = US 4287-760
Determining fat content of meat - by measuring specific wt. or vol. deviation of sample in fat non-solvent

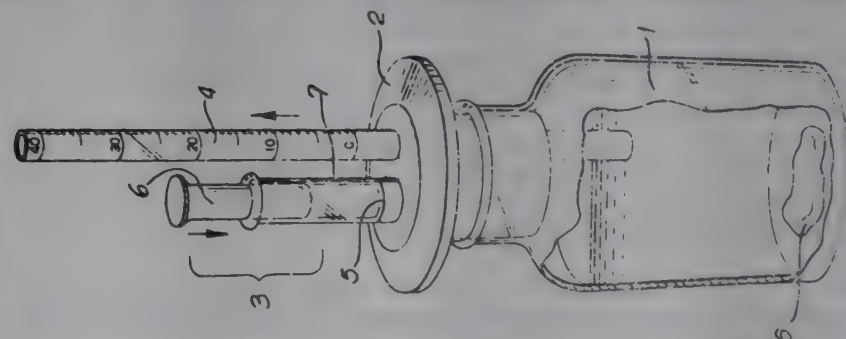
CHIBAYAKU GROCERIES 04.12.78-JP-149089

S03 X25 (08.09.81) *DE2947-736 G01n-09/10 + G01f-17

17.09.79 as 076309 (1358NS)

Appts. for measuring meat fat content comprises a container(1) to hold liquid and a meat sample and with a liquid height gauge(4) for measuring displacement and thus fat content. The gauge has fat content calibration indicia vertically spaced and projects upwardly through a lid to receive liquid displaced by operation of a piston pump(3) on the lid(2).

The container may have a rotatable stirrer for dispersing ground meat in the container. Alternatively, liquid may be introduced into the container from a separate vessel through the gauge which can support the vessel above the container. (7pp)



NAHA- ★ D12 71505 D/39 ★ US 4287-820
Appts. for spiral slicing of ham - the ham being rotated about vertical axis while rotary knife moves vertically and horizontally

NATIONAL HAM CO 15.09.78-US-943312

P28 (08.09.81) A23n-07 A47j-17

15.09.78 as 943312 (295PW)

Appts. for making spiral cuts in a ham includes vertically aligned spiked bosses which clamp the ham so that it can be rotated about a vertical axis. A slicing head comprises a rotating blade which lies in a horizontal plane and is carried at the end of a horizontal arm. The arm can be moved vertically to move the knife vertically along the ham, or alternatively the arm can be pivoted about a vertical axis to move the blade horizontally to move it towards the ham.

The apparatus is actuated when an operator moves a control lever. This causes the arm to move horizontally towards the ham and then to move vertically along the ham while a preset horizontal bias force is applied to the blade.

The apparatus is automatic in operation and includes an interlock which prevents the slicing blade from cutting into the ham-supporting bosses. (14pp)

CANI ★ D12 71752 D/39 ★ ZA 8003-104
Gland seal for stuffer horn - comprises rigid element swivelling ball-like holder attached to end of horn

CIL INC 25.05.79-CA-328340

Q31 (08.04.81) A22c B65b

23.05.80 as 003104 (295PW)

An extrusion chub container packaging apparatus has a filling horn with a gland seal. A spherical element is mounted on a bulbous end of the filling horn and can swivel while a filling material passes through the filling horn. An annular seal surrounds the spherical element and contacts a casing which is

drawn over the filling horn during a filling operation.

Pref. the spherical element is made from high density plastics and the annular seal from stainless steel or anodised aluminium.

The appts. extrudes comminuted meat, cheese or explosives into a casing. The seal prevents the material from flowing upstream into the unfilled portion of the casing. (9pp)

D13: OTHER FOODSTUFFS

RALS ★ D13 69876 D/39 ★ BE -888-807
Intermediate moisture content pet feed - having fat encapsulated sauce components as coating on the feed particles
RALSTON PURINA CO 15.05.80-US-150272
C03 (28.08.81) A23k
14.05.81 as 888807 (1251AT)

Feed of intermediate water content for domestic pets comprises a mixt. of proteinaceous and farinaceous components of 15-55 wt.% moisture content coated with particles of a sauce-forming mixt. encapsulated in fat. These particles are resistant to penetration by moisture during storage but are converted to a sauce by addn. of a hot aq. liq. Pref. the fat used has m.pt. 38-66, esp. 43-54, deg.C, and is used at at least 20 wt.% on the particles.

The coating of sauce-forming particles is pref. 0.25-10, esp. 1-4, wt.% of the feed, and the sauce-forming components include a polysaccharide thickener, pre-gelled starch, aroma agent and soluble carbohydrate, pref. also 0.1-5 wt.% of a flow regulator. The feed has pH 4-6 and includes an antimicrobial.

The compsn. retains its ability to form a sauce during prolonged storage, and formation of the sauce does not require activation by the natural moisture content of the food. (34pp)

SWIF ★ D13 69898 D/39 ★ CA 1106-681
Low calorie fat substitutes - comprises blend of glycerol fatty alcohol di:ether(s) and/or their mono:ester(s)
SWIFT & CO 27.12.77-US-864157
E17 (11.08.81) A23d-05
15.11.78 as 316253 (955PW)

Low calorie food compsns. contain, as replacement for at least part of the lipid content, dialkyl glyceryl ether cpds. of formula $R_1OCH_2CH(OR_2)CH_2OR$ and/or $R_1OCH_2CH(OR)CH_2OR_2$ where R_1 and R_2 are same or different satd. or unsatd. straight or branched alkyl of 8-30C, and R is H or R_3-CO- where R_3 is 3-21C straight or branched satd. or unsatd. alkyl.

The cpds. are not attacked by digestive enzymes, and are not absorbed, and so contribute no calories to food. Blends of the cpds. may be prepd. which closely simulate the functional props. of the lipids they replace. (18pp)

WIDM- ★ D13 69985 D/39 ★ DE 3007-993
Nuts esp. cashew nuts prepared for husk removal - by revolving cutters producing grooves of defined depth in husk
WIDMER & ERNST AG 01.03.80-DE-007993
(17.09.81) A23n-05
01.03.80 as 007993 (236AS)

Nuts conveyed between two belts are treated and processed by automatically singling out and orienting the nuts in transport devices, then feeding them between the two belts, where revolving discs produce one or more continuous grooves in the nut shell of a depth less than or equal to the thickness of the shell.

Pref. the singling out and orienting device operates by vibration. The vibration intensity may regulate the conveying speed. The upper and lower belts pref. travel at higher speed than the vibrating transport speed.

Used partic. for cashew nuts, also for coconuts etc., where an undamaged kernel has twice the value of a damaged one. Appts. is reliable, produces only the required depth of cut, and requires minimum maintenance, being therefore suitable for use in underdeveloped countries. (40pp)

HAYE/ ★ D13 69991 D/39 ★ DE 3008-119
Curd, soft, processed or heard cheese prep. - by dissolving whey powder or derivs. in liq. and precipitating protein
HAYER H 03.03.80-DE-008119
(17.09.81) A23c-19/02
03.03.80 as 008119 (200DH)

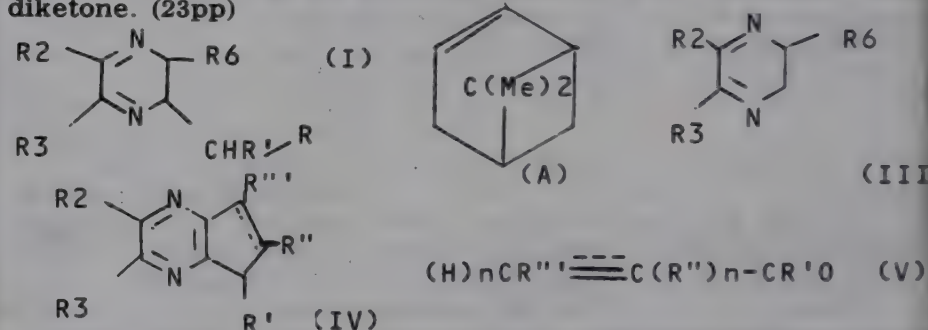
Cheese prep. comprises dissolving whey powder and whey powder derivs. contg. up to 100% natural and/or denatured protein, in a liq., e.g. water, whey or milk. The protein is pptd. by heating and opt. setting pH. The total mixt. or only the portion separated by centrifuging, decanting or filtering the boiler milk is added to the cheese fraction or to the finished prod. The cheese prod. can be curd-, soft-, processed- or hard cheese. (3pp)

FIRM ★ D13 70073 D/39 ★ DE 8048-01
Substd. mono- and bi:cyclic pyrazine prep. - by basic agent catalysed carbonyl cpd. addn. to di:hydro-pyrazine deriv.
FIRMENICH SA 21.12.79-CH-011391
E13 (17.09.81) C07d-241/12 C07d-405/06
19.12.80 as 048031 (200RH)

(1) Substd. pyrazines having formula (I) (where R_2 , R_3 and R_6 are opt. different, linear or branched, satd. or unsatd. alkyl; or substit. is H while the others are alkyl; R and R' each is linear or branched, satd. or unsatd. alkyl, or (i) 1 substit. is H while the other is alkyl, or (ii) 1 substit. is H and the other is opt. subst. aryl, an araliphatic or furyl gp. or a gp. having formula (A) or (ii) R and R' together form an alkylene gp.) are prepd. by adding a carbonyl cpd. having formula $R-CO-R'$ (II) on to dihydropyrazine having formula (III), in the presence of a basic agent.

(2) Bicyclic pyrazines having formula (IV) (where the dotted line denotes a plain or double bond; R' , R and R' each is linear or branched, satd. or unsatd. alkyl, alicyclic or aromatic hydrocarbonyl or H; or 2 substituents together can form an aliphatic gp. while the other is a gp. as above) are prepd. by adding a carbonyl deriv. having formula (V) (where the dotted line denotes a double or triple bond and n is 0 or 1) to a dihydropyrazine having formula (III) where R_6 is H) in the presence of a basic agent.

Pyrazines are used as aroma constituents in foods. The dihydropyrazine starting materials (III) and (IV) are easily prepd. by reacting an alkylene diamine with an alpha, beta-diketone. (23pp)



NEST D13 22527 T/14 = DS 2147-878
Tea and coffee extracts - prepared by freezing crushing and cryodessication

SOC PROD NESTLE SA 28.09.70-US-076028
+ Q76 (17.09.81) *BE-772-978 A23f-03/26 + A23f-05/32
24.09.71 as 147878 (068PW)

A freeze dried extract of coffee or tea is prepd. by process in which pre-concd. extract with a solids content of at least 30 (38-42) wt.% is precooled to between 5 deg.C and the freezing pt. of the extract; mixed with inert gas, e.g. air, CO_2 or N, further cooled to a temp. at which ice crystals are formed, pref. -4 to -12 deg.C then frozen and foamed at a pressure below 500 mm. Hg.

When treating a coffee extract 0.4-0.8 normal litres of inert gas are pref. added per kg solids present and for a tea extract 1.0-1.5 normal litres. The freeze drying and foaming are carried out in a single appts. maintained at reduced pressure. PS (5pp)

FIRM D13 29016 D/16 = EP -35-508
Flavouring of foodstuffs with unsatd. ketone - comprising 7-methyl-3-octene-2-one

FIRMENICH SA 18.09.79-CH-008409
E17 (16.09.81) *WP8100-802 A231-01/22
08.08.80 as 901454 Based on WP8100802 (367PW) (F) FR1384137
FR1305994 FR2005165 FR2119580 DE2318805 DE2444003 US3904780
4.Jnl. Ref E(CH DE FR GB LI NL)

Method of reinforcing, improving or modifying the organoleptic properties of foods or drinks comprises adding an effective amt. of 7-methyl-3-octene-2-one (I).

(I) is esp. useful for imparting green oil (e.g. olive oil) notes to cooking oils and for enhancing the fat-, meat- and/or nut-like notes of fried foods. (12pp)

CHEF ★ D13 70099 D/39 ★ EP --35-643
 Dietetic foods contg. plant polysaccharide - obtd. by extracting protopectin contg. material with aq. organic solvent
 GRUNENTHAL GMBH 11.03.80-DE-009210
 C03 (D16) (16.09.81) A231-01/30
 02.02.81 as 100719 (1251BZ) (G) DE2708404 FR2375255 DE2658767 DE2729370 GB1422345 E(AT BE CH DE FR GB IT LI LU NL SE)
 Dietetic foodstuff contains polysaccharide shaped prods. (I) obtd. by extraction of protopectin-contg. plant material (opt. from which juices have been removed). The extraction is carried out using aq. solns. of inert, neutral, miscible organic solvents, esp. 1-4C alcohols, at up to 75, esp. 65-70 deg. C.

Extraction is carried out until the residue has constant wt., then this residue is washed with cold, aq. alcohol, ground, dried and opt. treated with an oxidising bleaching agent. A pref. extractant is 50-55% aq. propanol, and specified plant materials are apples (not quite fully ripe) and sugar beet waste. (I) is obtd. to foods at 15-90, best 25-35, wt. %.

(I) have reduced calories content and glucose equivalents, and also contain protopectins which when metabolised have a favourable effect on cholesterol levels and insulin activity. They are largely degraded by bacteria in the colon and swell slightly in water. (I) are useful for diabetic and obese subjects, and for patients subject to arteriosclerosis or cardiac infarct. Residues left after removing the solvent from the extract can be used e.g. as animal feed additives, for mfr. of syrups or as nutrients for antibiotics prodn. (26pp)

HAHN/ ★ D13 70109 D/39 ★ EP --35-676
 Processing peanuts forming mash then dewatering - to form dough which is divided into pieces for drying

HAHN L 25.04.80-US-143826 (27.02.80-US-125142)
 (16.09.81) A231-01/36

20.02.81 as 101232 (295BZ) (E) US3162536 GB1180686 FR2203596 US3901983 US2685519 US1754266 E(AT BE CH DE FR GB IT LI LU NL SE)

Peanuts are pretreated to remove tannin, odour and impurities. They are mixed with water and then ground to form a mash which is subsequently dewatered to make a dough. The dough is divided into pieces which are treated to yield a product of predetermined physical characteristics. Pref. the treatment of the dough pieces involves a drying process which leaves a shape-sustaining amount of water. The pretreatment pref. is effected by saline soaking and rinsing.

Pref. the pretreatment is effected using a saline solution in which the peanuts are heated to 70 to 100 deg. C for 1 to 5 mins. The peanuts are rinsed and then pressure cooked in water at 120 deg. C for 15 to 30 mins. The resulting mixture is ground to form a mash which is partially dewatered to make a non-runny dough with a moisture content of 20 to 50 percent by weight. Starch may be added.

The resulting peanut product is water-soluble, odourless and tasteless, yet is still high in protein content. The product may be ground into flour but it is not formed by reconstituted flour. (19pp)

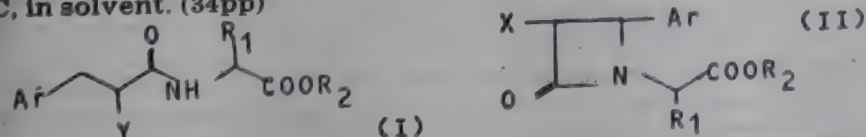
SAGA ★ D13 70148 D/39 ★ EP --35-743
 Prepn. of dipeptide(s) - by catalytic hydrogenolysis of 1-carboxy-alkyl-3 substd. -4-aryl-azetidin-2-one derivs.

SAGAMI CHEM RES CENTRE 07.03.80-JP-028060
 B05 E14 (16.09.81) C07c-99/06 C07c-103/52

04.03.81 as 101545 (1248RH) (E) 2.Jnl. Ref E(CH DE FR GB LI)
 Prepn. of a dipeptide of formula (I) involves catalytic hydrogenolysis of a 1-carboxyalkyl-3-substd. -4-arylazetidin-2-one deriv. of formula (II). In the formulae, Ar is an aromatic gp.; R1 is H, alkyl or aryl; R2 is H, alkyl or an aromatic gp.; Y is OH, NH2 or acylamino; and X is OH, NH2, acylamino, N3 or PhCH2-O.

Cpds. (I) are obtd. from the readily available cpds. (II) without complicated procedures etc. in contrast to the usual synthetic methods.

For the hydrogenolysis a Pd catalyst is pref. used, esp. at 0.1-100 mole % in terms of Pd atom, based on (II), and partic. at 1-50 mole %. Reaction is at 0-150 deg. C, esp. at room temp. to 100 deg. C, in solvent. (34pp)



NOSA ★ D13 70207 D/39 ★ EP --35-882
 Iodine enriched egg for treating heart disease and cancer - prepd. by feeding egg-laying birds with high iodine content feed
 NIPPON NOSAN IND KK 28.03.80-JP-039054 (07.03.80-JP-028004)
 B04 C03 (16.09.81) A23k-01/18 A231-01/32 A61k-35/54

03.03.81 as 300937 (916BZ) (E) CH-621234 J53024065 DS1692489
 1. Inl. E (AT BE CH DE FR GB IT LI LU NL SE)

An egg enriched with at least 300 micrograms of iodine is new. B. feeding egg-laying bird with feed contg. a higher proportion of a iodine source than normal is obtained Suitable iodine source include calcium, potassium and sodium iodides and iodates cuprous iodide, thymol iodide, calcium iodobenzenate diiodosalicylic acid, calcium periodate and iodine-rich seaweed such as sea tangle or kelp.

Prevention or treatment of heart disease or cancer. I increases lipoprotein lipase activity, reduces glycogen consumption and improves the constitution ratio of high density lipoprotein in the blood. (18pp)

SOFF. ★ D13 70265 D/39 ★ FR 2475-857
 Mfr. of cheese stabilised against butyric swelling - by adding lysozyme during mfr.

SOFFIN SOC FINANCIER 14.02.80-FR-003321
 (21.08.81) A23c-19/07

14.02.80 as 003321 (367BZ)

In the mfr. of cooked pressed paste cheese (i.e. of the Gruyere, Emmental, Comte or Beaufort type), an effective amt. of a lysozymic material (I), i.e. a material capable of lysing the spores of butyric ferments, is added in the course of cheese mfr., esp. before cured formation.

(I) is pref. a mixt. of lysozyme or a lysozyme salt (esp. hydrochloride) and one or more salts contg. Na and/or Cl ions. A pref. mixt. comprises 80-85% lysozyme hydrochloride (Ia) and 15-20% NaCl. (I) is pref. added in an amt. such that the lytic titre of the medium is 100-1000 IU/ml. Using a material with a specific activity of 25,000 IU/mg., the amt. added is pref. 4-40 g. per 1000 litres of milk (esp. 20 g. when the milk contains 13,000 butyric spores). Addn. of (I) stabilises the cheese against delayed fermentation or butyric swelling. (12pp)

JAGN D13 47786 A/27 = GB 1598-505
 Pulsed dose metal for small volumes of liquids - esp. applicable to hydrogen peroxide used to sterilise milk cartons prior to filling

JAGENBERG WERKE AG 26.02.77-DE-708422
 S02 Q39 (23.09.81) *BE-864-242 G01f-13

24.02.78 as 007427 (1358WB)

Appts. for pulsed supply of small metered amounts of liquid, e.g. 0.1-1 cm³ H₂O₂ for sterilising plastics-coated cardboard milk containers, includes a supply vessel with upper and lower liquid sensors defining a set volume between them, a counter operative while a set volume is withdrawn through an ejector, and a pulse generator transmitting a pulse to the counter each time the ejector delivers a set volume.

The vessel is pref. filled from a storage container either through a valve or when the container is lower than the vessel via a pump, pump and valve being controlled by the sensors. The counter is pref. connected to a computer which divides the volume taken from the vessel by the total number of pulses to derive an average volume which is compared with limit values so that a warning signal can be emitted when it lies outside the required range. (5pp)

CTPR D13 45562 A/25 #GB 1598-513
 Chemical de:lintering cottonseed hulls - by treatment with alkali soln. and oxygen

COTTON INC 15.09.76-US-723625 (03.02.78-GB-004495)

C03 E17 F09 (E13) (23.09.81) *US4087-316 D01c-01 D21c-01/06 D21c-05

03.02.78 as 004495 (964AS)

Cellulose fibres are removed from seed hulls by (a) contacting seed hulls comprising both cellulosic fibres and non-fibrous hull components with alkaline soln. and oxygen-contg. gas, in the absence of mechanical action sufficient to cause degradation of fibre properties; and (b) recovering free cellulosic fibres from the non-fibrous hull components so as to produce readily washable cellulosic fibres having unimpaired mechanical properties.

Specifically cottonseed hulls are contacted with 2-25 wt. % base based on the oven-dry wt. of cottonseed hulls. Pref. the hulls are pretreated prior to step (a) with 0.5-10 wt. % base based upon the oven dry wt. of the seed hulls.

High yield of fibrous material may be obtd. economically. (11pp)

GENM D13 40399 C/23 #GB 1598-638
 Storage-stable butter substitute compn. - contg. hard fat, oil and emulsifier, gives spreadable prod. on addn. of water and opt. oil

GENERAL MILLS INC 16.10.78-JP-126293 (18.04.78-GB-015250)

(23.09.81) *J55054-856 + A23d-03

18.04.78 as 015250 (964AS)

Mix suitable for prepn. of spreadable butter-substitute prod. having an oil content of 20-80 wt. % and water content of 10-80 wt. % comprises (a) 0.01-80 (0.1-30) wt. % of an emulsifier capable of forming water-in-oil emulsion; and (b) 2-99 (2-80) wt. % of a hard

fat such that the solid fat index in a butter-substitute prod. prepd. from the mixt. is 2-35% at 10 deg.C, 1-20% at 21 deg.C, 0.9-15% at 27 deg.C, not more than 8% at 33 deg.C and not more than 5% at 37.8 deg.C. The mixt. pref. contains 5-97 wt.% of an oil.

Pref. the emulsifier is a monoglyceride, diglyceride, polyglycerol ester of fatty acid, lecithin, and/or a sterol. The mixt. pref. further contains NaCl and/or KCl to improve taste.

The mixt. is shelf stable at high temps. and does not require high capital investment to produce. (11pp)

UNBI-★ D13 70347 D/39 ★GB 2071-478
Treatment of seeds for foodstuffs - by comminution, impregnation with liq. additive, compression to flakes, and drying

UTD BISCUITS UK LTD 05.02.81-GB-003629 (14.02.80-GB-005087)

(23.09.81) A231-01/36

05.02.81 as 103629 (478AT)

Foodstuff is prepd. as follows: (a) a comminuted edible seed prod. (I) is impregnated with a liq. additive (II); (b) pressure is applied so that (I) is formed into flakes; then (c) the (I) flakes are dried to a predetermined H₂O-content.

Step (a) seeds (wheat (pref. soft biscuit wheats) etc.) are cut into 2-8 pref. 3-7 esp. 5 or 6 pieces of max. dia. 2-5 mm. (II) is pref. aq. NaCl brine (to give (I) salt content 0-3%, pref. 2.5% by wt), or an aq. sugar soln. The (II) soln. pref. also contains an emulsifier, and opt. a phosphate. Impregnated (I) has H₂O- content not above 20%, which is pref. increased to 22-27% by steaming at 70-95 deg. for 5-20 min. prior to step (b). Step (b) flakes (pred. by rolling) have thickness 0.6-2 mm, pref. 0.8- 1.2 mm for wheat, 0.6-0.8 mm for rice, and 1.4-2 mm for barley. Step (c) drying is with air at 85-95 deg. to H₂O-content pref. 4-12% by wt.

Rapid process allows wheat seeds etc. to be used, and affords a prod. which is readily digestible and which is highly suitable for incorporation into other foodstuffs (e.g. as extender for sausages or burgers, etc.). In addn., the prod. has improved capacity to absorb H₂O. (5pp)

BRAI-★ D13 70348 D/39 ★GB 2071-479
Prepn. of instant cooking alimentary pastes - by low temp. steam treatment, water addn., then further low temp. steam treatment

BRAIBANTI & C SPA 10.03.80-IT-020483

(23.09.81) A231-01/16

23.02.81 as 105610 (478BZ)

Instant cooking pastas (based on cereal or other flours) is prepd. as follows: (a) a paste from an extrusion stage (water- content 25-35%) is treated with steam at below 100 deg.C/atmos. pressure; (b) paste is wetted to water-content 40-55%; (c) paste is allowed to stand; then (d) the paste is re-treated with steam at below 100 deg./atmos. pressure.

Steps (a) and (d) are pref. for 2-5 min. with steam at 95-100 deg. Step (c) stand is for pref. 10-25 min.

Method is rapid, uses steam at not above 100 deg., is inexpensive, may be operated on a continuous basis, and uniformly cooks and gels the contained starch. In addn., paste does not stick to the vapourization belt in step (d). (3pp)

POLL-★ D13 70420 D/39 ★GB 2071-692
Removal of nitrosamine from beverages - by exposure to visible light, then storage in the dark

POLLOCK & POOL LTD 18.03.81-GB-009043

E16 (23.09.81) C12h-01

18.03.80 as 009043 (478KB)

The nitrosamine (I) content of beverages is reduced as follows: prior to its first packaging for sale the beverage is illuminated with visible light then stored in the dark at -5 to +30 deg.C.

Visible light pref. has substantial emission in the yellow region. The beverage pref. flows by convection past the light and is heated as it is close to the light. Dark storage is pref. for at least 3 days. Opt. after treatment the beverage may be treated with an adsorbent to remove any SH cpds. formed.

Simple method effectively removes (I) from a variety of (opt. distd.) alcoholic beverages (whisky, etc.) but does not adversely affect the flavour. (4pp)

OHYA/★ D13 70469 D/39 ★J5 2041-271
Maintaining gelling properties of agar during acid addn. - by adding alginic acid-propylene glycol ester to soln.

OHYABU Y 23.09.75-JP-115172

E19 (30.03.77) A23g-01/06 A231-01/33

23.09.75 as 115172 (5AS)

Redn. in gelling properties of agar due to the addn. of an aq. soln. of acid such as citric acid, tartaric acid, sodium fumarate, lactic acid, succinic acid, phosphoric acid, vinegar, etc. or glucono-delta-lactone, to aq. agar soln. and is effected by adding arginic acid-propyleneglycol ester (I) to the soln.

minimally even in an acidic medium. Specifically agar, (I) sugar, sodium citrate, flavour, etc. are mixed and the mixt. dissolved in water with heating. (3pp)

HAYB ★ D13 70641 D/39 ★J5 6099-7
Steviol-glycoside prepn. - includes contacting soln. contg. impurities with magnesium silicate aluminate

HAYASHIBARA BIOCHEM 09.01.80-JP-001215

B03 E13 (11.08.81) A231-01/22 C07h-01/08

09.01.80 as 001215 (5AS)

Process comprises treating steviolglycoside soln. contg. impurities with magnesium silicate aluminate for removing impurities through adsorption and recovering steviolglycoside from unadsorbed fraction.

Magnesium silicate aluminate is a good adsorbent for stevia extract and the impurities of stevia extract including colourant protein, etc. can be removed effectively without adsorbing steviolglycosides. Exhausted magnesium silicate aluminate can be regenerated easily by treating with aq. alkali soln. and washing with water. (8pp)

IMAR/★ D13 70642 D/39 ★J5 6099-77
Syoyu-like seasoning prepn. - by adding fermented liq. for aminoacid(s) to water, adding syoyu-koji and then brewing conventionally

IMARUT 07.01.80-JP-000771

(11.08.81) A231-01/23

07.01.80 as 000771 (5RH)

Method comprises (a) adding the fermented liq. for amino acid, in water, (b) adding 'syoyu-koji' to it and (c) brewing 'syoyu' conventionally.

'Syoyu'-like seasoning which has high nitrogen content of 2.6-2.7%, keeps specific flavour or syoyu, shows strong taste and is free of amino acid odour and burnt smell, can be prepd. inexpensively.

For the fermented liquid that for glutamic acid can be used alone or pref. together with that for alanine. For glutamic acid-fermented liquid alone it is added to water so that glutamic acid content is 20-50 mg/ml. and when using it together with alanine-fermented liq. they are added to water so that glutamic acid content and alanine content are above 10 mg/ml. and above 5 mg/ml. and their sum is 15-50 mg/ml. Excellent salt-reduced 'syoyu' can be also prepd. using the method. (5pp)

POLY-★ D13 70643 D/39 ★J5 6099-782
Preventing discoloration of foods - by addn. of cyclic condensed phosphate and opt. sodium ultra or hexa-meta-phosphate

POLYPHOSKAGAKU KEN 10.01.80-JP-001676

E34 (11.08.81) A231-03/34

10.01.80 as 001676 (5AS)

Process comprises adding to the food (a) 0.2-0.8 w/w% cyclic condensed phosphate such as sodium trimetaphosphate or tetrametaphosphate, or (b) 0.2-0.8 w/w% of the mixt. composed of 50-90 w/w% cyclic condensed phosphate and 50-10 w/w% sodium ultraphosphate having reticular structure or sodium hexametaphosphate having linear structure.

Cyclic condensed phosphate is easily hydrolysed to linear form during heat-processing of the food and is bonded (a) to amine for preventing Maillard's reaction, (b) to dimethylamine, trimethylamine, etc. in marine foods and (c) to antocyanin-type pigment in fruit juice, etc. for preventing the discolouration of those foods. (3pp)

SHIB/★ D13 70928 D/39 ★J5 6101-814
Heat fusible oblate starch film mfr. - by dissolving ordinary starch in water, dissolving starch contg. amylose in hot water, mixing the solns., heating, etc.

SHIBAOMI T 17.01.80-JP-004157

A32 (A11) (14.08.81) A231-01/19 B29c-13

17.01.80 as 004157 (59PW)

Ordinary starch (e.g. potato and sweet potato starch) (100 pts.wt.) is dissolved in water (700-1000 pts.wt.). Starch contg. at least 50wt.% of amylose (e.g. high amylose corn starch) (5-20 pts.wt.) is dissolved in hot water (50-200 pts.wt.). The 2 solns. are mixed together and the mixt. is heated at 60-100 deg. C to gelatinise the starch. The gelatinised starch soln. is coated and dried on a rotating drum to provide fusible oblate starch film.

The amylose is a linear polymer of glucose, etc. to provide film with heat sealability and gas barrier activity which provide airtight packaging of prods. The gas barrier activity and sealability of edible starch film enables packing of cake and medicals. The film is used in lieu of capsules to reduce packaging cost markedly and can be swallowed easily. (2pp)

NEST D13 54470 T/34 ★ J8 1036-889
Acid particles - for reconstituting yoghurt, coated with edible fat to regulate solubility
SOC PROD NESTLE SA 10.02.71-CH-001943 (09.02.72-JP-014307)
(27.08.81) *BE-778-316 A23c-09
 09.02.72 as 014307 (BZ)
 Acid compound of regulated solubility is prepared by coating a solid acid particle (citric, lactic acid in size 10-100 micron) or incorporating it in a solid support with an edible fat (hydrogenated butter oil) solid at room temp. and containing an emulsifying agent. Antioxidant and flavours may be added. The protective coating is selected to liberate acid at the desired rate (0.5-2 h) in water to give yoghurt of the required consistency. (J47019060) (2pp)

NIRE- ★ D13 71024 D/39 ★ J8 1036-891
Dispersing capsulated flavour in oil and fat - used to prepare fried products which have a good flavour
NIPPON REBA IND KK 16.04.73-JP-042838
(27.08.81) A23d-05
 16.04.73 as 042838 (22NS)
 Capsulated flavour is dispersed in oil and fat. The resulting prod. is useful for frying.
 Fried products prepd. with the product have good flavour. Flavours, oil and fat may be conventional ones. (J49129701) (4pp)

TONK- ★ D13 71026 D/39 ★ J8 1036-898
Improving taste and flavour of sliced raw peanut - by contacting with ethanol then water vapour
TON KK(FUKO) 27.05.74-JP-063023
(27.08.81) A23l-01/20
 27.05.74 as 063023 (22BZ)
 Raw peanut having water content of 6 to 14% is sliced, and then the resultant is allowed to contact with ethanol and finally treated with water vapor, followed by drying. Taste and flavour are improved. (J50154449) (9pp)

NEST D13 40639 B/22 = J8 1036-899
Removing flatulent sugars from soya - by anaerobic fermentation using *Saccharomyces uvarum*
SOC PROD NESTLE SA 04.01.78-CH-000069
(27.08.81) *BE-872-336 A23l-01/20
 28.12.78 as 164595 (597DH)
 The process comprises prepg. a soya suspension contg. 5-45% dry material which is inoculated with at least 1 strain of *Saccharomyces uvarum* e.g. CBS 1502, obtained by growing on a medium contg. at least 1 sugar having at least 1 alpha-D-galactopyranosyl link. The suspension is fermented in anaerobic conditions at 15-50 deg.C for at least 8 hrs.
 The soya is used as a protein in the food industry, esp. in dietetic products. The product has a neutral taste and smell. The process is economic and enables the total degradation of soya sugars. (J54098355) (7pp)

AJIN D13 55142 C/31 = J8 1036-900
Prod. of soybean and/or soy protein prods. - by extracting soy protein materials with aq. ethanol, and recovery of odourless ethanol
AJINOMOTO KK 11.05.78-JP-055980
(27.08.81) *US4212-798 A23l-01/20
 11.05.78 as 055980 (478AT)
 Soybean (I) and/or (I) protein prods. are prepd. by (a) (I)-protein contg. material is extracted with EtOH-H₂O; (b) the liq. fraction is sepd. from suspension; (c) liq. fraction is divided into 2 fractions; (d) 1st portion is diluted with H₂O to EtOH concn. less than 40%, then extractively distilled in tower at 80-95 deg; (e) volatile materials are removed and distilled bottoms are recovered from extractive distn; (f) bottoms are azeotropically distilled, and distilled portion is recovered and mixed with 2nd portion of step (c) as feed material for step (a).
 Method efficiently removes components which give rise to undesirable odours and tastes in (I) prods. (J54147950) (4pp)

TANA D13 19977 X/11 = J8 1036-910
Seaweed *taukudani* prepn. - *Ulvaceae* treated with enzyme prepn. to soften cortical tissue prior to cooking with seasonings
TANABE SEIYAKU KK 17.07.74-JP-082624
(D16) (27.08.81) *J51012-959 A23l-01/33
 17.07.74 as 082624 (BL)
Ulvaceae (which prevents marine farming of useful *Monostroma*) is treated with an enzyme prepn. (cellulase, hemicellulase and pectinase (prepd. from e.g. *Aspergillus niger*, *A. oryzae*, etc.)) at 4.5 and 30-40 deg.C for 8-16 hrs for softening of cortical tissue prior to usual cooking for 1 hr. with soy, sucrose, liq. sugar, caramel and other seasonings, palatable *taukudani* of good taste.

TANA ★ D13 71027 D/39 ★ J8 1036-918
Removing endocarp from oranges - by skinning, immersing in hydrochloric acid, washing, immersing in pectinase, washing, immersing in sodium hydroxide (J5 12.6.75)
TANABE SEIYAKU KK 27.10.73-JP-121005
(27.08.81) A23n-12/02
 27.10.73 as 121005 (22WB)
 Outer cover of orange is removed, immersed in hydrochloric acid soln., washed immersed in pectinase soln. at 25 to 45 C, washed, immersed in sodium hydroxide soln. and washed again. (J50070547) (4pp)

ASAE D13 07742 A/04 = J8 1037-767
Cocoa butter substitute for chocolate mfr. - consists of refined fats from seeds of *shorea robusta*
ASAHI DENKA KOGYO 19.07.76-JP-085714
(02.09.81) *NL7707-170 A23d-05
 19.07.76 as 085714 (513NS)
 Cocoa butter substitute comprises a refined fat obtd. from extracts of seeds of *Shorea robusta*, with a OH value of not more than 16; a solid fat index at 30 deg. C of 48-60; a cooling time, going with the peak temp. on the cooling curve, of 45-120 mins.; and a peak temp. of 17-28 deg. C. Pref. the fat has a hydroxyl value of at most 13, a solid fat index at 30 deg. C of 50-60, a cooling time corresp. with the peak temp. on the cooling curve of 45-100 mins. and a peak temp. of 19-28 deg. C. The total content of hydroxy- and epoxy fatty acids in the fat is pref. at most 1.5 wt.% esp. at most 1 wt.%.
 Refined fats from *Shorea robusta* seeds, which grow naturally in tropical regions, are excellent substitutes for cocoa butter and can be used e.g. in the prodn. of high quality chocolate prods. (J53012464) (14pp)

ASAE D13 82889 A/46 = J8 1037-768
Cacao butter substitute for use in chocolate mfr. - comprising a tri:glyceride compsn. having good melting behaviour and rapid drying property
ASAHI ELECTROCHEM 18.03.77-JP-029979
(02.09.81) *J53115-863 A23d-05
 18.03.77 as 029979 (5AS)
 The triglyceride compsn. has the following characteristics: (1) its satd. fatty acid gps. consist of palmityl, stearyl, and arachidyl gps. and the proportion of arachidyl gp. based on all satd. fatty acid gps. is 4-15 molar %. (2) Unsatd. fatty acid gps. consist of oleyl and linolyl gps. and the proportion of linolyl gp. based on all unsatd. fatty acid gps. is less than 20 molar %. (3) It has the following compsn. (a) tri-satd. triglyceride 1-5 molar %, pref. 1-3 molar %. (b) beta-unsatd. alpha, alpha'-satd. di-satd. triglyceride 50-80 molar %, pref. 55-75 molar %. (c) alpha or alpha'-unsatd. di-satd. triglyceride as less than 5 molar %, pref. less than 3 molar %. (d) beta-satd. diunsatd. triglyceride as less than 5 molar %, pref. 3 molar %, (e) alpha or alpha'-satd. diunsatd. triglyceride 15-50 molar %, pref. 25-45 molar %. (f) triunsatd. triglyceride as less than 6 molar %, pref. 4 molar %.
 The cacao butter substitute has excellent melting behaviour, rapid drying property, detaching property, etc. and can provide chocolate having excellent fat-bloom resistance and thermal resistance. (J53115863) (10pp)

FUKO ★ D13 71053 D/39 ★ J8 1037-772
Protein membrane prepn. from soybean protein or casein - drying the regenerated coagulated membrane and treating with aq. plasticiser and/or curing agent to improve strength (J5 8.8.75)
FUJI OIL KK 12.01.74-JP-006719
A88 (A11 D12) (02.09.81) A23j-03
 12.01.74 as 006719 (22PW)
 In the prepn. of protein membrane from soybean protein or casein, regenerated coagulated membrane is dried and then treated with aq. solution contg. plasticiser and/or curing agent. The strength of the membrane is improved. (J50100253) (3pp)

FUKO ★ D13 71054 D/39 ★ J8 1037-773
Foodstuff prepn. similar to dried gourd shavings - comprises adding gluten starch or mannan to protein compsn. contg. soybean and casein, then coagulating with acid and forming into ribbon
FUJI OIL KK 28.02.74-JP-023889
(02.09.81) A23j-03
 28.02.74 as 023889 (22RH)
 Method for preparation of foodstuff like dried gourd shavings. To mixed protein compsn. contg. soybean protein and casein is added gluten, starch or mannan to give alkaline aq. dispersion, then coagulated with acid coagulating agent and then shaped in ribbon like form. (J50117954) (2pp)

BOEF D13 83067 Y/47 = J8 1037-799
Recovering protein having reduced nucleic acid content - by heating aq. microorganism suspension under controlled temp. and pH

BOEHRINGER MANNHEIM GMBH 21.05.76-DE-622982
(D16) (02.09.81) *DS2622-982 C12r-01/08 + C12n-01/08 C12p-19/32 C12p-21

20.05.77 as 058626 (KB)

Single cell proteins are recovered from microorganisms by heat-treatment. An aq. microorganism suspension is heated at pH 7-8.5 and 63-67 deg. C, opt. with addn. of a substance (I) having ribonuclease activity, until 5'-nucleotide content in the medium reaches the desired level. The suspension is then boiled quickly, i.e. to 90-100 deg. C, opt. under increased pressure. Insoluble raw protein is then sepd. from the suspension, e.g. by centrifuging or filtration.

Prod. is odourless, digestible and can be used for human nutrition. The RNA-content can be reduced to 0-0.2wt.% and the protein yield can reach at least 90%. RNA is decomposed quantitatively to 5'-nucleotides which can be sepd. from the filtrate or recycled, in the filtrate, to the nutrient broth. Solubilised cell components and soluble protein residues can also be used up for new cultures. (J52143290) (5pp)

RESE = * D13 71215 D/39 *SU-793-528
Prod. of feed supplement for fish - by mixing moist peat, with aq. ammonia and superphosphate and ageing
RESERVOIR FISHING 02.02.77-SU-450040
C03 P14 (07.01.81) A01k-61 A23k-01/16

02.02.77 as 450040 (314VE)

Feed supplement is obtd. by: mixing peat of 65-68% moisture with aq. NH₃ and superphosphate and ageing the resulting mixt. in air for 20-30 days. The wt. ratio of peat: aq. NH₃: superphosphate is 1.00:0.02:0.01 to 0.80:0.015:0.008.

The aq. NH₃ pref. contains 20-25% NH₃ and the superphosphate pref. contains 15-18% P₂O₅. The resulting feed supplement has high biological activity. A typical prod. contains 25-28% protein. Bul. 1/7.1.81. (2pp)

ULIC = * D13 71216 D/39 *SU-793-554
Prod. of fats emulsion for making dairy prods. - by mixing fats mixt. with buttermilk, emulsifying, adding further buttermilk and re-emulsifying

ULICH BUTTER CHEESE 13.11.78-SU-684918
(07.01.81) A23c-09/12 A23d-05/02

13.11.78 as 684918 (314VE)

A fats emulsion used for making a range of dairy prods. is obtd. by mixing a mixt. of pork fat, beef fat and hydrogenated oils with emulsifier, the fats mixt. being enriched with phospholipides by adding buttermilk both before and after the emulsification. In the first addn. buttermilk is added in an amt. 20-50% of the total to enhance the overall fats content to 60-65%; and in the second addn. buttermilk is added in an amt. 50-80% to enhance the overall fats content to 30-40%. The mixt. is then subjected to a second emulsification.

The emulsion obtd. is used to make yogut, smetana, soured cream, hard cheese, cream cheese, butter, etc. The emulsion has properties similar to natural milk emulsions and its fat component has physical and chemical properties similar to the fat component of natural milk. (4pp)

KSAG = * D13 71217 D/39 *SU-793-556
Protein feed supplement for bee propagation - contains honey, skimmed milk, sunflower oil cake, synthetic aminoacid(s) and powdered sugar

KISH AGRIC INST 21.02.79-SU-728464
C03 (07.01.81) A23k-01/18

21.02.79 as 728464 (314VE)

Protein feed supplement for honey bees during the early spring period comprises (in wt.%): honey 14-18, dried skimmed milk; sunflower oil cake 15-18, lysine 1.3-1.8, histidine 3.3-3.7, serine 2.7-3.2, isoleucine 1.3-1.6, leucine 2.7-3.2, asparaginic acid 0.7-1.2 and powdered sugar the balance. The supplement enhances the degree of reproduction.

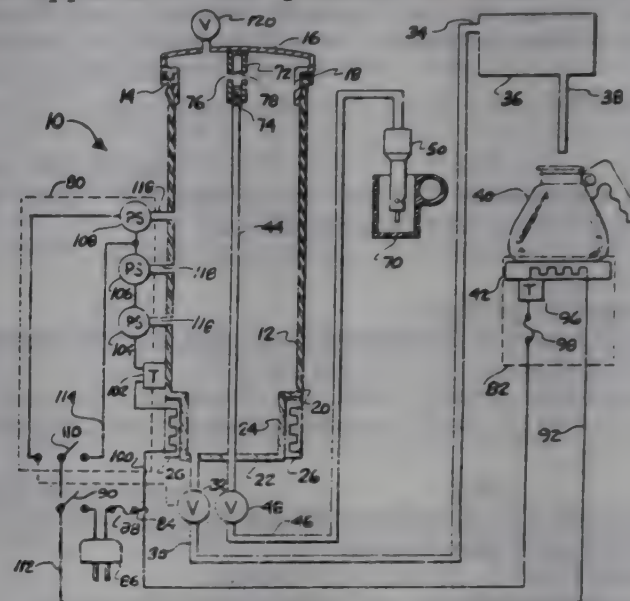
Typically, a feed supplement contg. (in wt.%): honey 16, dried skimmed milk 5.5, sunflower oil cake 17.0, lysine 1.6, histidine 3.5, serine 3.0, isoleucine 1.4, leucine 3.0, asparaginic acid 1.0 and powdered sugar the balance, increased bee prodn. by 12.2-21.4% compared to known feed supplements. Bul. 1/7.1.81. (2pp)

MOSK/ * D13 71504 D/39 *US 4287-817
Infusing esp. coffee by hot water or steam - from sealed boiler with selectable pressure

MOSKOWITZ P M 05.06.78-US-912194
X27 P28 (08.09.81) A23f-05 A47j-31/54
05.06.78 as 912194 (295NS)

water through a conduit to a basket holding coffee ground. Alternatively the steam may be taken via a separate conduit to steam nozzle which delivers the steam into a cup of milk. The boiler has 3 pressure sensitive switches which are selectively used to regulate the electrical element according to the setting. User controlled switches. The pressure switches control the temperature of the hot water delivered to the coffee grounds. The appts. is for domestic use and can deliver hot water either below boiling point for 'normal' coffee; hot water above for espresso or steam for cappuccino coffee where a mixt. of milk and espresso coffee is heated by contact with the steam.

A single apparatus can produce 3 types of coffee. (7p) Dwg.No.1)



PROC * D13 71626 D/39 *US 4288-374
Stabiliser for peanut butter prepd. from peanut oil - by randomisation and crystallisation of fraction rich in satd. long chain tri:glyceride(s)

PROCTER & GAMBLE CO 23.05.79-US-041668
(08.09.81) A23d-05 C11c-03/12

23.05.79 as 041668 (955NS)

Stabiliser based on peanut oil is prepd. by (a) randomly interesterifying a mixt. of 0-70% hydrogenated peanut oil and 30-100% unhydrogenated peanut oil, (b) fractionally crystallising from this mixt. a triglyceride fraction contg. at least 10% fatty acids of 20-24C atoms, and (c) completely hydrogenating the prod. of step (b) to an IV below 8.

The starting mixt. pref. contains 30-70% hydrogenated peanut oil and 30-70% unhydrogenated peanut oil. Any randomisation technique may be used, and catalysts that may be employed include NaK alloy sodium methoxide, or NaOH under vacuum. Any acid may be used to neutralise the catalyst. Fractional crystallisation may be carried out using hexane, acetone, methanol, ethanol, chloroform etc. as solvents.

Peanut butter prepd. using the stabiliser is extremely stable, has a high peanut flavour and excellent spreading and eating qualities. (20pp)

BRPE D13 20321 B/11 *US 4288-458
Liq. fish protein food prod. for pigs - prepd. using liquefied protein, fish and accelerator additive (SW 8.1.79)

BP NUTRITION UK LTD (BPPE) 09.06.77-GB-024071
(01.05.78-US-901510)

C03 (08.09.81) *FR2393-536 A23j-01/04

16.11.79 as 094851 (393PW)

Prepn. of liquefied fish silage involves admixing unground fish solids of 6 by 15 inches with liquefied fish silage in the ratio 10:1-1:10 by wt. and an additive for initiating and accelerating liquefaction of the solids.

The additive is organic acid, inorganic acid, their salts, or enzymes. Process is effected at at least 20(20-40) deg.C. Pref. mixing is carried out in a tank using a chopper pump. The organic acid is pref. HCOOH.

Process eliminates the need for fine mincing, the conveying of solid minced fish, the mixing of a solid mass after addn. of acid and the need for heavy duty equipment. (4pp)

PROM- * D13 71653 D/39 *US 4288-459
Low fat imitation sour cream - based on low fat milk, stabiliser and cottage cheese with bacterial culture and flavourings

PRO-MARK CO 28.09.79-US-080150
(08.09.81) A23c-03/08 A23c-09/12 A23c-23

28.09.79 as 080150 (955RH)

A low fat product resembling sour cream is prepd. by (a) mixing milk of butterfat content 0.7-7 wt.% and a stabiliser, (b) heating the mixt. to 150-180 deg.F to give a uniform mixt. and effect pasteurisation, (c) combining the mixt. with bacterial culture and

the mixt., (d) agitating the combination to a uniform consistency, (e) keeping the mixt. at 70-130 deg.F and adding a lactic acid producing culture, (f) adding a preservative and one or more flavourants which are edible acid(s) lipase modified butterfat or starter distillate at any stage after step (b), but before step (g) and (g) homogenising the mixt. at 500-5000 psig.

The prod. is dairy based, fermented and closely resembles sour cream in appearance, texture, and taste, but has a low fat content below 2 wt.%. (6pp)

BALC- ★ D13 71654 D/39 ★ US 4288-460
Non-caking encapsulated hygroscopic food additives - coated with sorbitan deriv. or lecithin, propylene glycol and flow agent esp. fumed silica

BALCHEM CORP 24.05.79-US-041804
A97 (08.09.81) A231-01/04 A231-02 A231-03/34 C09k-03
24.05.79 as 041804 (955PW)

Non-caking granular food ingredient compsns. contain core particles of a normally hygroscopic water soluble food ingredient coated with a mixt. contg. 3-35% polyoxyethylene sorbitan monooleate or polyoxyethylene sorbitan monostearate or lecithin, 15-56% propylene glycol, and 38-62% finely divided flow agent.

The compsns. contain hygroscopic materials such as organic acids, flavourants or preservatives, and are useful e.g. in beverage or dessert mixes. They are easy to handle, stable for long periods but dissolve readily when required. (5pp)

CALP D13 87999 B/49 = US 4288-461
Mechanised de-stoning of fruit, partic. peaches and apricots - with selective scooping of centre only when stone is broken

CALIFORNIA PROCESSI (CALP) 22.02.78-US-880229
(11.01.80-US-111371)
+ P14 P28 (08.09.81) *FR2417-949 + A01k-43
11.01.80 as 111371 Div ex 4213382 (6KB)

Appts. for de-stoning fruits such as peaches and apricots, processes fruits having either sound stones or split stones at a single pitting station where the fruit body is bisected, and grippers advance to seize the stone.

A sound stone is held by the grippers while the fruit body halves are twisted off. A split stone is indicated by the grippers advancing too far, whereupon the grippers are retracted and a rotary coring spoon removes the split stone by cutting a core from the fruit about the stone. (15pp)

SMIT/ ★ D13 71656 D/39 ★ US 4288-464
Flavour enhancer esp. sweetener for frequent use - contg. artificial sweetener, maltol and low D.E. polysaccharide

SMITH W J 19.10.79-US-086432 (11.05.78-US-904890)
B05 E12 (08.09.81) A231-01/23
19.10.79 as 086432 (955PW)

A flavour enhancer is prepd. by drying an aqueous mixt. contg. 1-5 pts. artificial 1/2-1 pt. maltol or ethyl maltol, and 5-10 pts. of a soluble low D.E. polysaccharide.

The compsn. is used as a sweetener. It is intended to be safe for frequent use. The bitter after taste of saccharin is prevented.

The compsn. pref. contains 2 1/2 - 3 1/2 pts. artificial sweetener which esp. saccharin and/or cyclamate, esp. a mixt. of cyclamate salts of different cations. (4pp)

MEYE/ ★ D13 71657 D/39 ★ US 4288-465
Cheese product with longitudinal fibrous texture - formed by pulling continuously extruded cheese strand

MEYER M 13.06.79-US-048525
(08.09.81) A23c-19/02
13.06.79 as 048525 (295BZ)

A cheese product has a longitudinal fibrous texture and is formed from a cheese capable of forming a fibrous texture when stretched. The cheese is heated and then extruded as a continuous strand. A longitudinal pulling force is continuously applied to the strand to induce the desired longitudinal fibrous texture, and to reduce the cross-sectional size of the strand. The strand is finally cooled. Pref. tension is maintained on the strand during the cooling step. The strand is eventually severed into predetermined lengths.

The product is elongate with a longitudinal fibrous texture. It is eaten by pulling off strips. Italian cheeses are particularly suitable for making the product because of their natural stringy properties. (6pp)

SUPR- ★ D13 D/39 ★ ZA 8002-504
Maize meal food prod. prepn. - by cooking after the addn. of water, alpha amylase and casein, cooked prod. is sealed in sheath of PVDC

SUPRO FOODS PTY LTD 25.04.80-ZA-002504 (18.05.79-ZA-002443)
A97 Q31 (22.06.81) A23c B65b

25.04.80 as 002504 (AT)

Maize meal cooked after the addn. of water, alpha amylase and casein.

The cooked prod. is packed and sealed under aseptic conditions in a sheath of PVDC to form a chub. The prod. has shelf life of months or more without refrigeration. (8pp)

HANN- ★ D13 71762 D/39 ★ ZA 8003-850
Sepn. of almond kernels - from shelled and partly shelled kernels using pair of opposed inclined rollers rotating upwardly through gap

HANNAFORD A & CO PT 28.06.79-AU-009378
(12.05.81) A23n

27.06.80 as 003850 (295PW)

Almond kernels are sepd. from a mixt. contg. some partially shelled kernels by a pair of parallel rollers. The rollers are contra-rotated about horizontal axes to form an upwards moving nip. The separation of the rollers is adjusted to allow only the completely shelled kernels to fall through while the remainder of nuts placed on the rollers are advanced towards an end of the rollers.

Pref. each roller includes low profile helical flight which causes the kernels to tumble while the rollers rotate. (15pp)

SEVE/ ★ D13 71765 D/39 ★ ZA 8004-816
Cockroach insecticide compsn. - comprises boracic acid admixed with sugar

SEVENSTER F 07.08.80-ZA-004816
C03 (27.04.81) A01n

07.08.80 as 004816 (1248PW)

Insecticidal compsn. comprises an edible food component (I), an attractant (II) and boracic acid (III). The compsn. is useful for control of crawling insects and esp. of cockroaches, while it has low toxicity to man and animals. The compsn. interferes with the digestive system of the insects, ultimately leading to their death.

The (I) is suitably flour and (II) is pref. sugar or sugar substitute. The (III) is pref. present at 10-50% of the compsn. The (I) may be partly cooked before use in the compsn. The compsn. may be in the form of a paste with water, so that it may be placed in cracks and crevices where insects may be found. The compsn. may also be formed into dry blocks, suitable for placing in cupboards etc., and esp. where foodstuffs are stored. (9pp)

LUBB/ ★ D13 71766 D/39 ★ ZA 8004-893
Coffee-like beverage - prepared from debarked sugar cane boiled in aq. sodium bicarbonate soln. and roasted with unrefined sugar

LUBBE W G 11.08.80-ZA-004893 (03.07.79-ZA-003309)
(12.05.81) A23f A23i A23l

11.08.80 as 004893 (955PW)

Beverage raw material is prepd. by treating fibrous vegetable material in a digester medium to remove undesirable cell constituents, separating the fibrous residue, roasting it with a carbohydrate, and comminuting the prod. to a granular powder. Beverage similar to coffee may be prepd. The raw material is pref. debarked sugar cane. The digester medium is pref. alkaline, and is esp. a soln. of sodium bicarbonate. The material may be dried before roasting at, pref. 80-120 esp. 100 deg.C, for 1 hr. The carbohydrate is pref. unrefined sugar. Roasting is carried out in a conventional oven, at 130-150, esp. 140 deg.C, for about 2 hrs. The beverage may be prepd. by contacting water with the powder, pref. by filtering water through a bed of the powder. (12pp)

See Also

D16 EP 35831	D16 EP 35883	D16 J56100605
D16 J8 1036888	D16 J8 1037798	D16 ZA 8005297
D21 SU 793383	D23 J8 1037784	

GRAM-★ D14 69879 D/39 ★BE-888-820
Discharge conveyor for continuous freezing tunnel for food prods. has delivery end drum which flexes band to dislodge prod.
BRODRENE GRAM A/S 19.05.80-DK-002176
P82 (28.08.81) A23b B26d

15.05.81 as 888820 (448AS)
Discharge conveyor for a continuous freezing tunnel for food prods. is of the type which employs an endless, flat band of metal wire mesh on which the prod. is frozen. At the delivery end of the conveyor, the band passes around the circumference of a driving drum or pulley.

The surface of the drum is made up of spaced, parallel battens extending parallel to the axis of the drum. Each batten in turn exerts a radially outward thrust against the inside of the band as it passes around the drum. The battens are pref. fixed around intermediate support discs located between the ends of the drum.

Used for cyclic flexing of the conveyor band passing around the drum at the discharge end of a food freezing tunnel. The prods. are automatically detached from the band without scraping. (16pp)

GRAM-★ D14 69880 D/39 ★BE-888-821
Vertical plate freezer for industrial prodn. of frozen food - has prod. ejector platforms linked to hydraulically displaced lifting beam

BRODRENE GRAM A/S 19.05.80-DK-002177
Q75 (28.08.81) F25d
15.05.81 as 888821 (448BZ)

A vertical plate freezer for industrial prodn. of frozen food prods. The freezer has a set of spaced, vertical plates between which prod. is compressed and frozen. The gap between each pair of adjacent plates is closed at the bottom by an elevator platform which can rise to lift frozen prod. clear of the plates.

All the elevator platforms for a set of freezer plates are now mechanically linked to a pair of lifting mechanisms, one at each end of the set of plates. Pref. all the platforms are linked to the top of a lifting beam extending between a pair of fluid power cylinders, partic. hydraulic. The linkage between each platform and the beam is pref. a telescopic rod which is extended by a supplementary linkage actuated by the ascent of the lifting beam.

Used lifting frozen prod. from the spaces between vertical plates of an industrial freezer. The elevating platform actuating mechanism is much more compact than previous rack and pinion drives. The freezer is thus simpler to install and offers better access to the freezer plates from all sides. (15pp)

CENT-★ D14 D/39 ★BR 8001-195
Static drying unit for irregular and high moisture content products
CENTREINAR 29.02.80-BR-001195
(01.09.81) A23n-12

CENT-★ D14 D/39 ★BR 8001-196
Solar energy for drying
CENTREINAR 29.02.80-BR-001196
Q74 Q76 (01.09.81) A23b-09 F24j-03/02 F26b-09/02

SUPR-★ D14 70024 D/39 ★DE 3009-185
Materials melting device - using centrifugal disc with attached heating elements and perforated rim
SUPRATON ZUCKER F J 11.03.80-DE-009185
A31 (17.09.81) B29b-03/02

11.03.80 as 009185 (39AS)
Melting device for wax, butter, cocoa mass or thermoplastics, and other materials of poor heat conductivity consists of a heated disc which is revolved at a high speed. The molten or semimolten material is thrown by centrifugal action against revolving rim with apertures which is also kept at a temp. above the m.pt.

Device automatically replaces molten material by fresh feed and prevents the danger of local overheating. (19pp)

TUCH- D14 88401 Y/50 = DS 2623-301
Pipeline shut-off stop, esp. for foodstuffs industry - has leakage cavity preventing pressure build up rinsed continuously
TUCHENHAGEN O GMBH 25.05.76-DE-623301
P13 Q39 Q66 (17.09.81) *DE2623-301 A01j-05 B67d-05/60 C12l-11 + F16k-51

25.05.76 as 623301 (39RH)

A double-seat valve esp. for use in the food industry has a lower valve disc attached to the valve stem, and the upper valve disc pressurised by a spring and slideably arranged on the stem. The leakage space formed between the two seats and discs is accessible to the cleaning fluid through a tube, attached to the hollow actuating stem. The stem bore has access through two radial holes to an annular gap which leads to the leakage space and to a discharge bore in the lower valve disc stem.

This facilitates the assembly of such double-seat valves to a

SCHO- D14 83028 Y/36 #DS 2712-65
Electric cooking oven incorporating fume destruction - b. combined action of grill resistance and slotted box above grill
ETAB SCHOLTES E 03.12.75-FR-036944 (23.03.77-DE-712654)
X27 P43 Q74 + P28 (17.09.81) *BE-851-053 F24c-15/20
23.03.77 as 712654 (39RH)

An electrical baking oven has in its top part a zigzag heating element to be used as a grill which is sepd. from the oven ceiling by a plate with narrow slots which conform closely to the heating bars. This plate forms with the ceiling a fume extn. space which is fitted with a fume extn. pipe. The width of the slots and their distance from the bars of the heating element are less than the dia. of the bars.

The fumes must thus pass closely over the hot bars so that all smoke and fat particles are effectively burned before the fumes leave the oven. PS (5pp)

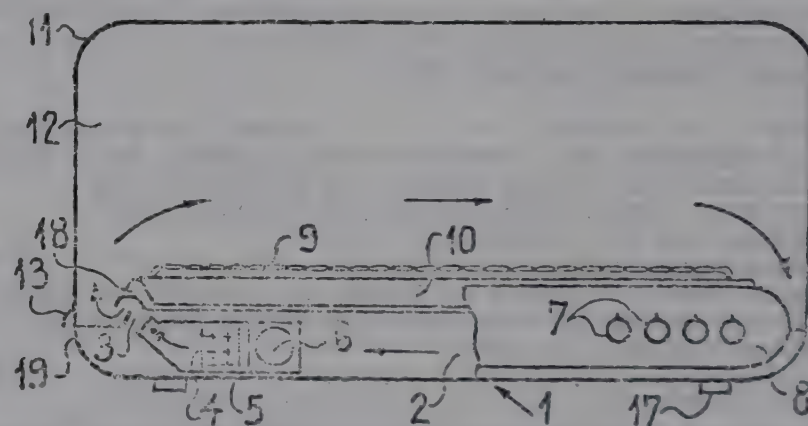
CALA-★ D14 70264 D/39 ★FR 2475-856
Portable heater to thaw frozen food and defrost refrigerator - has casing contg. heating element fan and adjustable thermostat
CIE CALADOISE REFRI 19.02.80-FR-003576
X27 (21.08.81) A23b-04/06 A23b-05/04 A23b-07/04
19.02.80 as 003576 (448KB)

The heater comprises a casing which contains a fan, a heating element and an adjustable thermostat. Air is drawn in at one end of the casing, passed through the heating element to raise the air temp. and blown out at the other end of the casing.

Pref. the heater is supplied complete with a removable cover. The heater fits under the cover leaving a space into which frozen food is placed. Hot air is blown through the space and recycled through the heater. The heater casing is pref. in the form of a shallow, flat-topped box of rectangular cross section. The top of the box carries a grill on which frozen food is thawed out. A drip tray fits between the grill and the box top.

The heater is light weight, portable and inexpensive. It can provide rapid thawing, right to the middle of a frozen food prod., even when the prod. is wrapped in metal packaging which defeats microwave heating. Thawing is fast and controlled with no loss of prod. quality. (9pp Dwg.No.1)

1/1



EDON-★ D14 70332 D/39 ★GB 1598-803
Foodstuff heat treatment and cooling appts. - with temp. sensor and comparator controlling heating and cooling system solenoids
EDONI REFRIGERATION 04.03.77-GB-009115
X25 P82 (23.09.81) G03b-19/02
31.05.78 as ----- (1358AS)

Appts. for heat-treatment of foodstuffs and storage at set temp. has a control circuit with a foodstuff temp. sensor and a comparator producing control signals when the foodstuff reaches two set temps. to operate heating and cooling units respectively.

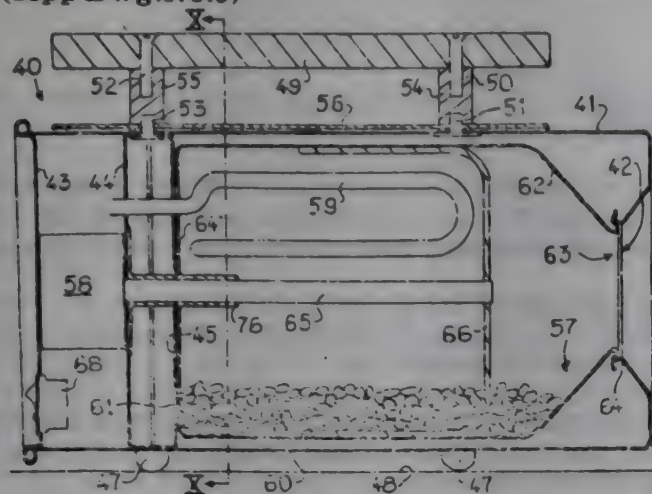
The signals pref. actuate respective solenoids for energising a steam raiser to heat the foodstuff and a cooling water flow valve. There may be two comparators, each producing one signal. The apparatus is e.g. a batch pasteuriser for milk, raising milk temp. to 145-165 pref. F for 30 min. then cooling it to a storage temp. of 40 deg.F. (3pp)

LANG/★ D14 70349 D/39 ★GB 2071-480
Domestic coffee roaster - with rotatable container tiltable for loading and unloading with coffee beans
LANGFORD G C 30.01.81-GB-002950 (17.03.80-GB-008876)
X27 (23.09.81) A23n-12/10
30.01.81 as 002950 (50AS)

Coffee roaster has a container (57) one end (63) of which is open, or openable, supported in a roasting position with its longitudinal axis horizontal and rotated about its longitudinal axis by an electric motor (58) to enable beans inside the container to be tumbled and roasted by a heater (59) positioned adjacent to the beans. A handle (49.56) is provided to enable the container to be tilted out of its roasting position.

roasting or downwardly to facilitate unloading of roasted coffee beans.

Domestic coffee roaster enables green coffee beans to be purchased in bulk, and small quantities to be roasted at home shortly before use eliminating the deterioration of roasted beans with time. (13pp Dwg.No.9)



AKT- ★ D14 70360 D/39 ★ GB 2071-516
Extractor of dust from dust laden air - which changes air flow direction leaving dust to flow on

OAKTON M A LTD 12.03.80-GB-008278

J01 (23.09.81) B01d-45/06

12.03.80 as 008278 (50PW)

Dust extractor includes a chamber with dust laden air supplied thereto via an inlet passage the inner end of which is positioned relative to the outlet from the chamber so that air from the inlet passage changes direction to flow to the outlet, while dust particles remain travelling in substantially the same direction due to their momentum. A device is provided associated with the chamber to cause flow of air from inlet to outlet.

Used partic. for removing dust in a bread drum-coating appts. used for coating food prods. with breadcrumbs. Prior coating appts. has delivered an excess of coating material causing dust to be formed. Previously excess has been removed by a blast of air, causing more dust to be formed. New appts. efficiently separates dust from air. (5pp)

REU- ★ D14 70744 D/39 ★ J5 6100-623
Granule coating appts. - includes hot air passage for drying raw material after spraying with liq.

FREUND SANGYO KK 12.01.80-JP-002291

B07 P33 P42 (12.08.81) A23p-01 A61j-03/06 B01j-02 B05b-13

12.01.80 as 002291 (26AS)

Device is claimed for coating granules such as pharmaceutical and food grains and tablets with a sugar or another coating film. The raw material is contained in a rotary vessel. Liq. coating is sprayed over the raw material in the vessel and left to dry. Improvement is that a hot air passage is formed in the vessel to dry the raw material after spraying the liq. The passage runs from one end of the vessel to the other end. At either end, a disc valve is attached to close the passage only when the liq. is sprayed over the raw material.

Raw material is applied rapidly without being modified. (6pp)

UMO ★ D14 70746 D/39 ★ J5 6100-625
Appts. for producing granular food or pharmaceutical - in which powder is mixed with water and binder and extruded from die having small holes

SUMITOMO CHEMICAL KK 16.01.80-JP-003908

B07 (12.08.81) B01j-02/20

16.01.80 as 003908 (26PW)

The powder is mixed with water and binders and extruded into grains from a die having small holes. The object is to quickly dry the extruded grains, without forming lumps.

The die has a cylindrical shape and erects vertically. An annular pipe is disposed around a lower section of the die and has air blow holes facing at the entire side wall of the die to blow air to

Each hole has a dia. of 0.1-5mm. The pipe is connected to a power and may direct obliquely upwards. (3pp)

AGO- ★ D14 71506 D/39 ★ US 4287-821
Septic storage tank for semi-processed liquids - with smooth inner walls and dispersion discs suspended from top inlet

KAGOME KK 28.09.78-JP-118627 (28.09.78-JP-118623)

(08.09.81) A23p-01

28.09.78 as 080059 (295BZ)

An aseptic storage tank comprises an upright cylinder with a conical top having an inlet. The cone has an upper inlet apex and a removable manhole mounted below the apex and connected with the inlet apex. The inner surface of the cone is smooth and

flush. An inspection plate includes a peephole. Inner surfaces of the inspection plate are also free from recesses. Liquids to be stored or cleaning fluid may be introduced through the inlet. A dispersion device is suspended from the inlet. It comprises discs spaced inwardly from the walls of the cone with their upper surfaces spaced below the inlet apex. They are shaped to receive the inflowing fluid and to splash it upwardly towards the inner walls of the cone.

The device is used for storing half-raw food materials which have only undergone preliminary processing. The shaping of the interior of the tank and its smooth surfaces ensures there are no crevasses for germs to breed in, and also ensures that disinfection is thorough. (14pp)

WHIT- ★ D14 71513 D/39 ★ US 4287-873
Domestic oven range door hinge - locking in partially open position on removal of door

WHITE CONSOLIDATED 02.05.80-US-146038

X27 Q47 Q73 (08.09.81) A22c-21 E05f-01/12 F23m-07

02.05.80 as 146038 (1358NS)

A hinge has a mounting plate supporting a stop, and a longitudinal link with one end pivotally supported by the plate at a point spaced from the stop and movable to and from the stop. A blade is formed as a bell crank pivotally mounted between its ends to the link, with one arm biased towards the stop and having a recess aligned with the stop when the hinge is at least partially open.

The other blade arm extends along part of the link and axial alignment between second arm and link holds the recess out of engagement with the stop while the link is moved, while a given nonaxial alignment between arm and link permits engagement to lock the hinge in place at the partially open position.

Door can be removed to facilitate oven cleaning, and easily reinstalled. (7pp)

DERD/ ★ D14 71599 D/39 ★ US 4288-314
Appts. for sepg. clumping dried fruits - has oppositely reciprocating plates producing gentle rubbing action

DERDERIANE J 02.09.80-US-182953

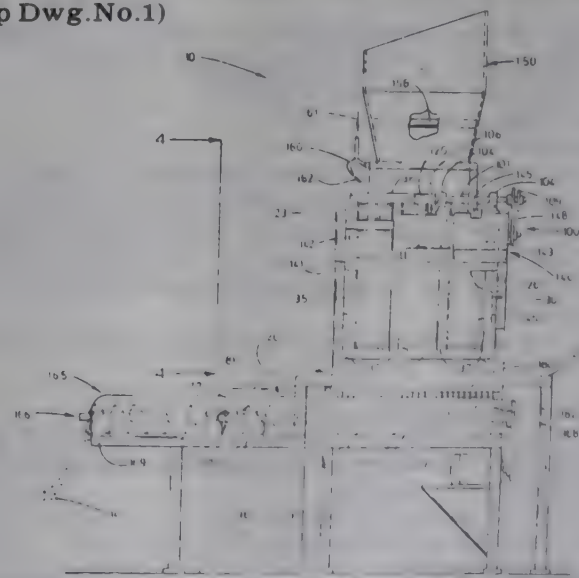
P43 (08.09.81) B07b-13/16

02.03.80 as 182953 (295DH)

A pair of friction plates are mounted to form a downwardly convergent trough. The plates are independently movable and are driven so that they oscillate alternately and oppositely to separate the fruits by a rubbing action.

The plates are mounted in a frame by means of a linkage system arranged so that the angle of inclination varies with upward and downward movement of the plates. The upward inclination of each plate increases as the plate moves upwardly.

The appts. is used for separating large clumps or 'bricks' (100 kg) of compacted dried fruit, particularly raisins, but also dried apricots, peaches, prunes or dates. The appts. does not damage the fruit. (11pp Dwg.No.1)



KEYW- ★ D14 71761 D/39 ★ ZA 8003-771
Filter for cooling oils and fats - comprises castor-mounted drum on which filter paper disc is clamped

KEYWEST PTY LTD 00.00.80-ZA-003771 (13.08.79-ZA-004208)

(11.05.81) C01d

25.06.80 as 003771 (295PW)

Filtration appts. consists of a liq. receiver having a base with a liq. outlet at its lower end. A filter membrane is supported above the outlet. A pressure member clamps the periphery of the membrane when placed on a support.

All of the liq. discharged from the outlet must have passed through the filter membrane. Pref. the pressure member acts against the periphery of the filter membrane through the

intermediary of a sealing ring.

The apparatus is used for cleaning cooking oil and fats. (15pp)

See Also

D22 DE 3009202

D15: WATER TREATMENT

ESMI/★ D15 D/30 ★BR 8101-256
Scraper for floating waste
 ESMIL BV 28.02.80-NL-001198
 (01.09.81) C02f-01/40

WOLT/★ D15 69931 D/30 ★DD -149-205
Neutralisation of waste acid pickling water - esp. with milk of lime obtd. from acetylene mfg. plant, so reaction prods. do not cause environmental pollution

WOLTER HD 18.02.80-DD-219108

M12 (01.07.81) C02f-01/66

18.02.80 as 219108 (1144AS)

Transport vessel (I) is partly filled with a suspension of milk of lime, which is pref. obtd. from a plant employed to mfr. acetylene. Vessel (I) is next conveyed to a tank (II) employed to collect waste acid pickling water and partly filled. Vessel (I) is emptied into tank (II) while plain water is also added, so that neutralised reaction prods. are obtd.

The neutral reaction prods. are then fed back into vessel (I), so they can be transported to a rubbish dump and deposited as harmless materials not causing environmental pollution. Process is simple and the lime suspension is inexpensive. (6pp)

HOLI/★ D15 69959 D/30 ★DD -149-261
In depth water sampler - with time delay mechanism to open access and vent

HOLINSKI W 19.12.79-DD-217800

J04 S03 (01.07.81) G01n-01/12

19.12.79 as 217800 (39RH)

A liq. sampler, esp. for taking samples of water at various depths, is a cylinder which is lowered into the water to the desired depth. A built-in time delay, actuated by mechanical, hydraulic, electric or gravity means, moves a piston with an annular groove and gives access to the water. At the same time, the inert gas which had previously been admitted into the sample vessel, is displaced.

This is a simple and robust design which procures satisfactory water samples for analysis from any depth. (7pp)

ALHA/★ D15 69998 D/30 ★DE 3008-208
Flow-through water desalination - using perforated cartridge clamped with flange between outer case flanges

ALHAUSER E 04.03.80-DE-008208

(17.09.81) C02f-01/42

04.03.80 as 008208 (39KB)

A device for water desalination without a bypass is a totally enclosed cylindrical tank with a cylindrical cartridge which holds an ion exchange resin between perforated face ends. The cartridge has an annular flange at one end which is clamped between seals and the flanges on the base and on the cover of the cylindrical tank.

This ensures a reliable seal by simple means. Any accidental leak is visible at once. (11pp)

HOFE/★ D15 70017 D/30 ★DE 3008-767
Power generation system - with coupling closed bio:physical and biochemical process circuits

HOFER C 07.03.80-DE-008767

X15 Q55 (17.09.81) F03g-07

07.03.80 as 008767 (39DH)

Energy generation system is based on a combination of solar heat, geothermal heat and biochemical digestion processes. Closed circuits for the biophysical and biochemical energy are coupled and used to produce mechanical work and generate electricity. Storage circuits are added to accumulate energy for peak periods.

This turns municipal, agricultural and industrial waste into energy and prevents a pollution of the environment. It saves large amounts of primary energy such as coal, mineral oil or natural gas. (24pp)

ASAH D15 67300 X/36 =DS 2606-24
Hollow synthetic fibres - as membrane filters for eg reverse osmosis, by wet spinning polymers using core forming soluble salts

ASAHI KASEI KOGYO K 15.02.75-JP-018426

A88 F01 J01 (17.09.81) *DE2606-244 B01d-13/04 B01d-39/0

D01f-01/08 D01f-02/28 D01f-06

13.02.76 as 606244 (481PW)

Hollow fibres for membrane filtration comprise a thread-forming synthetic- or semi-synthetic linear high polymers (I) having a porous cylindrical wall (II).

(II) has a uniform statistical pore distribution in the form of a three-dimensional network structure, having a mean min. pore size of the filter channels of from 0.01 to 1 micron, and having a porosity of at least 55%. (II) has a network structure of ring-tape appearance in cross-section which represents the active filter zones, the min. size of which determines the filter passages for the permeation of the filter liq. and the solids present in it, and has almost uniform min. pore size. Pref. (I) is cellulose acetate DS (18pp)

BENC D15 22183 C/13 =DS 2960-408
Di:alkyl-ureido:methane di:phosphonic acid derivs. - useful as scale inhibitors for aq. systems

BENCKISER J A GMBH 02.09.78-DE-838437

E11 (D25) (17.09.81) *DE2838-437 C02f-05/14 C07f-09/38

31.08.79 as 960403 Based on EPG010147 (913WB)

N,N'-Alkyl ureidomethane diphosphonic acids (I)

CH(PO₃(R)₂)₂-NR₁-CO-NHR₂ (I)

and their alkali salts are new and are used for preventing scale formation in aq. systems. In the formula, R₁ and R₂ are 1-3C alkyl or together form 2 or 3C cyclic alkylene; and R is H or alkali metal.

Pref.(I) are prepd. by reacting formic acid with N,N'-dialkyl subst. urea R₁-NH-CO-NH-R₂. (7pp)

ETLI/ D15 53168 C/30 =EP --35-493
Appts. for biological treatment of water - with circulation through aeration and settling chambers caused by aerator

ETLIN V N 29.03.78-US-891261 (05.09.79-EP-900274)

(16.09.81) *US4211-657 C02f-03/20

05.09.79 as 900274 Based on WP8100709 (295NS) (E) US3246762

US3355023 US4059524 DE2533520 US3834540 E(AT CH DE FR GB LU NL SE)

A waste water treatment device includes a chamber for aeration of the water and exposure of the water to activated sludge. The chamber has a smaller cross-section area at its bottom than its top. Waste water is introduced near the bottom. It also has an aerator near the bottom which causes circulation of the water.

Waste water from the top of the aeration chamber is delivered to an adjacent settling chamber whose water level is slightly lower than that of the aeration chamber. Settled sludge is returned to the bottom of the aeration chamber while supernatant is delivered to a second settling chamber. From here sludge is returned via a conduit which discharges into a zone of rising air bubbles in the aeration chamber. Clarified waste water is removed from the top of the second settling chamber.

The aerator causes the circulation of the water without the use of any additional pumps. (18pp)

RENN/ D15 25384 D/14 =EP --35-515
Purificn. of spent acid pickling baths - by contact with anion adsorbing material to adsorb selectively one of the metal ion complexes present

RENNERFELT LI 13.09.79-SE-007619

M14 (16.09.81) *WP8100-728 C02f-01/52 C23c-01/12 C23g-01/36

04.09.80 as 901669 Based on WP8100728 (314PW) (E) DS1276979

DE1621577 DE1936253 DE2026162 DE2526247 DE2602440

DE2714749 GB-584481 SE-388843 US2754261 E(AT CH DE FR GB LI NL)

Spent pickling baths are purified by contact with an anion adsorbing material (I) which selectively adsorbs one of the metal ion complexes present. (I) is then simultaneously washed and regenerated.

after being selectively adsorbed by (I).

Method does not generate large vols. of waste soln. The Fe chloride complex-contg. residual soln. may be used e.g. in the reph. of water purificn. chemicals. Adsorber (I) is regenerated and recycled, and the Zn chloride complex-contg. wash soln. may be used to make fluxing agent for a hot dip galvanisation process. (9pp)

GOODRICH B F CO D15 05755 D/05 = EP --35-538
Absorbent copolymer from neutralised acrylic acid - and higher and lower acrylic ester(s), polymerised by electron beam
GOODRICH B F CO 11.09.79-US-074454

A14 C03 (A97 D22) (16.09.81) *BE-885-157 C08f-02/54 C08f-20/06
8.08.80 as 901781 Based on WP8100714 (510NS) (E) US4167464
US2878237 US3915921 US3926756 US3983083 US4024040 US4062817
US4066583 US4178221

A copolymer is prepd. from (a) 50-90 (65-85) wt.% of acrylic acid, with 60-100% of the COOH gps. neutralised with an alkali metal or NH₄ before polys., (b) 2-25 (5-20) wt.% of a higher acrylic ester of formula CH₂1/CR'-COOR, where R' is H or (m)ethyl; and R is 10-30 (16-21)C alkyl, and (c) 5-30 (5-20) wt.% of a lower acrylic ester of formula CH₂1/CR'-COOR, where R is 1-8 C alkyl; 0.50% of (c) may be replaced by (meth)acrylonitrile or (meth)acrylamide. The mixt. is polymerised by exposure to an electron beam of pref. 1-15 Mrads.

The monomers may be polymerised in any form, e.g. films or fibres. The prods. are useful in adsorbing water or body fluids, e.g. as sanitary towels or disposable napkins, opt. with other adsorbent materials. The prods. are also used as flocculants in water treatment, in flotation of ores, in soil treatment, or in coating of seeds.

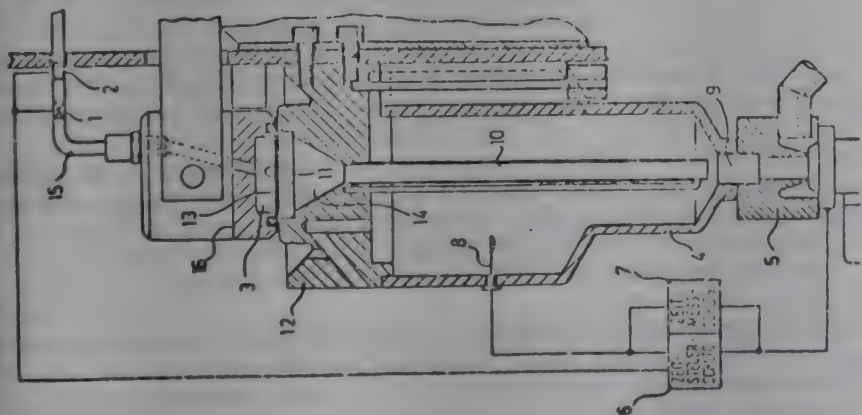
The copolymers have high absorption and retention for water and ionic solns. (17pp)

COND-★ D15 70174 D/39 ★EP --35-788
Colloidal index determ. of liquids esp. water - using sample filtration meter, so blockage of expensive water treatment membranes can be prevented

CONDUCTA GES MESS 10.03.80-DE-009130
J04 S03 (16.09.81) G01n-15/06 G01n-33/18
0.03.81 as 101748 (1144AS) (G) US3138015 US3985020 1.Jnl.Ref
E(AT BE CH DE FR GB IT LI NL SE)

During the treatment of a liq., e.g. the deionisation of water, a sample of the liq. is fed through a by-pass tube into a meter. In the meter, the liq. sample is forced by pressure through a filter. Either the time taken for a given vol. of the sample to pass through the filter, or the vol. filtered in a given time, is used to indicate the colloidal or fouling index of the liq. The pref. meter contains a sieve employed to support a membrane, through which the sample flows into a chamber contg. a level switch connected to a timer so the vol. of filtrate obtd. in a given time can be obtd.

Used during reverse osmosis or other purificn. treatments using expensive membranes. By measuring the colloidal, fouling- or fouling- index of water etc., the blockage and destruction of expensive membranes can be prevented. (14pp
Dwg.No.1)



ESMI-★ D15 70181 D/39 ★EP --35-812
Flotation sepn. of flocculated solids in liquid - by flowing into tank via shaped ducts minimising turbulence

ESMIL BV 07.03.80-NL-001372
J01 P41 (16.09.81) B03d-01/14
8.02.81 as 200235 (295RP) (E) DE2641718 NL6813804 US1351155
E1517701 US3286844 FR-877193 E(AT BE DE FR GB IT SE)

A flotation tank is supplied with a flocculated liq. via an upward duct. The upper end of the duct is below the liq. level of the tank and has a curved lip which faces the downstream end of the tank. A weir is located at the downstream end of the tank and separates the liq. from the flocculated solids. Downstream from the upward duct, is a series of baffles of divergent profile formed by a

The appts. separates a flocculated solid. The baffles and curved lip reduce turbulence and the formation of preferential flows in the tank. (14pp)

CSTE-★ D15 70274 D/39 ★FR 2475-942
Water purifier using germicidal radiation from ultraviolet tubes - has motorised wiper blades to clean tubes and reflective surface
CIE GEN CONS TELGPH 15.02.80-FR-003360
P43 (21.08.81) B08b-01 B08b-11 C02f-01/32
15.02.80 as 003360 (448DH)

Water is passed through a chamber contg. emission tubes arranged parallel to the longitudinal axis and surrounding, reflective wall(s) of the chamber. Tube wipers attached to a common carrier are periodically moved from one end of the chamber to the other.

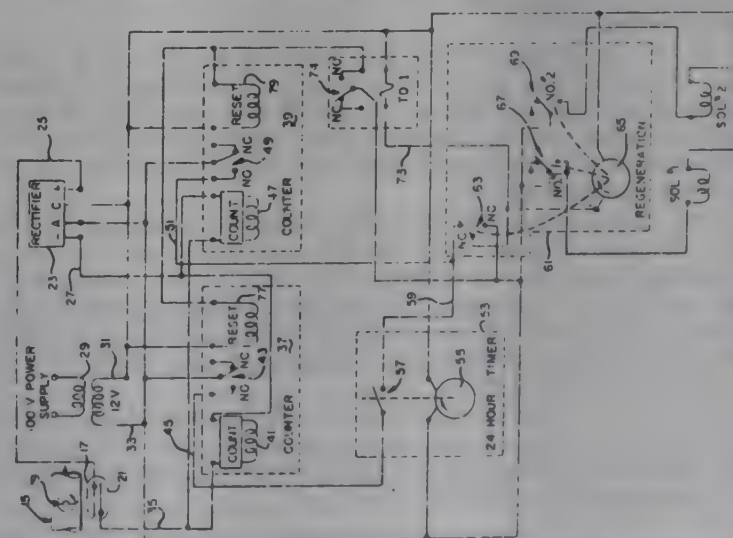
The periphery of the carrier is non fitted with a wiper blade which cleans the interior, reflective face(s) of the chamber as the carrier is displaced. Wiper blades for both tubes and reflective surface(s) are pref. sized and supported by the carrier to grip tightly against the surface to be cleaned as the carrier is displaced. Displacement of the carrier is pref. by means of a motorised lead screw engaging a nut integral with or rigidly linked to the carrier. All active surfaces are cleaned automatically without having to remove emission tubes or interrupt the water treatment. (13pp)

WATE- D15 53514 A/30 = GB 1598-489
Control circuit for starting regeneration cycle in water softener - after passage of metered vol. of water

WATER REFINING CO 18.03.77-US-779097
T06 (23.09.81) *BE-865-050 B01d-15/04 + C02f-01/42 G05b-24/02
17.03.78 as 010770 (1358WB)

An initiation control circuit for a water softener regeneration cycle includes a softener water throughflow meter with pulse output of frequency proportional to flow rate to a counter emitting an enabling output when a count is reached indicating that capacity for treating a normal 24-hr supply remains, and a second when the count indicates that treatment capacity has been depleted.

A timer responsive to the first enabling output is connected to a regeneration timer also responsive to the second counter output, so that regeneration is initiated at a set time of day after the first enabling output is produced, or before this time if the second enabling output is produced. (7pp)



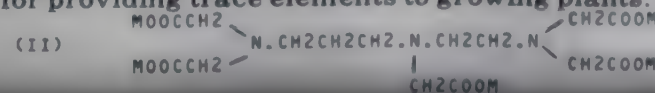
REXO D15 91333 B/51 = GB 1598-610
N-aminoethyl-1,3-propane di:amine penta:acetate acid - useful as chelating agent in bleaching wood pulp and for supplying trace metals to plants

REXOLIN CHEM AB 31.05.78-GB-024771
C03 E19 F09 (23.09.81) *DE2918-842 C07c-101/26 D06c-03
31.05.78 as 024771 (982MR)

Aliphatic polyamino polycarboxylic acids of formula (I) (where m is H or alkali metal ion) are new. Pref. alkali metal atom is Na or K.

Also new is the corresp. nitrile (II) obtd. by reacting 2-aminoethyl-1,3-propanediamine, HCN and formaldehyde in an acidic aq. medium and sepg. and recovering (II). (II) can be hydrolysed with an alkali metal hydroxide in an aq. medium to obtain (I).

(I) are used as a chelating agent for bleaching wood pulp for use in paper making. (I) produce chelates of trace elements which are useful for providing trace elements to growing plants. (8pp)



RAVA/ D15 32185 A/18 = GB 1598-920
Industrial sepn. of oil from waste water with rotary skimmers - which deliver oil into automatically emptying tank

RAVAGNANG 28.12.76-IT-041710

H03 J01 Q42 (23.09.81) *BE-862-403 E02b-15/04

20.12.77 as 052999 (1358JB)

Appts. for sepg. and removing oil from a water surface comprises rotatable discs partly immersed in the water, an array of nozzles on a rack directing gas jets at the surface to direct oil to the discs, scrapers removing adherent oil from the discs and passing it into a container, and a controller responsive to container wt. for periodically initiating discharge of its contents.

Each disc pref. has two elastic scraping blades directed against its opposite faces by biasing springs acting on levers associated with blade support angle bars forming part of a channel along which separated oil flows to an insulated collecting surge tank with pneumatic inlet valve closed for discharge of contents by admission of compressed gas. (6pp)

KUBI ★ D15 70386 D/39 ★ GB 2071-633
Waste water treatment apparatus - with oxygen supply controlled by information associated with organic loading

KUBOTA KK 19.06.80-JP-U87022 (07.03.80-JP-U30269)

(23.09.81) C02f-03/02

27.02.81 as 006361 (50RH)

Waste water contg. organic material is treated in an appts. having a first chamber, in which a mixed liquor comprising waste water being treated and an activated sludge flows downwardly, and an adjacent chamber in which mixed liquor flows upwardly to a circulation device which raises mixed liquor from the upward flow chamber and delivers it to the downward flow chamber. An oxygen contg. gas is supplied into the downward flow chamber, in an amt. dependent on the output of a detector responsive to the organic loading in either the upward or downward flow chamber.

Arrangement of the flow chambers vertically increases the pressure and thereby increases the solubility of oxygen in the water under treatment. Control of the oxygen supply ensures max. efficiency. (21pp)

ESSO ★ D15 70387 D/39 ★ GB 2071-634
Removal of floating oil from water in a tank - by adding spreading agent and discharging water

EXXON RES & ENG CO 10.03.80-US-128726

H03 (23.09.81) C02f-01/40

06.03.81 as 007186 (367AT)

Removal of oil floating on the surface of water in a tank is effected by (a) adding a spreading agent (I) having a spreading force greater than that of the oil, thereby forcing the oil against the walls of the tank, and (b) discharging water from the tank at a point below the water surface so that the oil deposits on the walls vacated by discharged water.

Specifically claimed process comprises (i) washing the tank with crude oil and rinsing with water; (ii) stripping the tank to remove residual oil; (iii) loading the tank with clean ballast water; (iv) adding (I) having a spreading force greater than 38 mN/M; and (v) discharging the ballast water from a point below the surface, opt. while adding additional (I). A specified cpd. (I) is 'Corexit 'Corexit OC-5' (RTM).

The method is esp. applicable to directly loaded 'clean ballast' in the steel tanks of marine oil tankers. When treated as above, the water discharged from such tanks contains less than 15 ppm oil down to ullages of less than 1 m. (7pp)

TSUB ★ D15 70556 D/39 ★ J5 6099-401
Liq. fungicidal and algicidal compsn. - contg. isothiazolone and 2-hydroxymethyl-2-nitro 1, 3-propane-di:ol

KUMIAI CHEM IND KK 00.00.80-JP-148976 (25.07.79-JP-094740)

A60 C02 E12 (E13) (10.08.81) A01n-33/20 A01n-43/80

25.07.79 as 148976 / 80 Div.ex 94740/79 (108AS)

Compsn. contains (a) isothiazolone of formula (I) (where Y is H, alk(en)yl, alkynyl or aralkyl; R is H, halo or alkyl; R' is H, halo or alkyl; or R and R' in combination form a benzene ring; M is alkali(ne earth) metal, heavy metal or amine; Z is anionic atom or radical; a is 1 or 2; and n is integer), (b) 2-hydroxy methyl-2-nitro-1,3-propanediol (A); and (c) diol solvent.

The combined use of (I) and (A) shows a synergistic effect and decompn. problems are solved by use of diol as solvent. Compsn. is applied to aq. paint, polymer latex, pulp, leather and machine oil for fungicidal purposes, or to cooling water for the control of algae.



Suitable diols include (di)ethyleneglycol, polyethyleneglycol (di)propyleneglycol, polypropyleneglycol, etc. The use amt. of solvent is pref. 5-95%. (7pp)

JAOR ★ D15 70620 D/39 ★ J5 6099-64
Pressure dewatering belt prodn. - by sliding pressure-resistant flexible tube over drum, applying raw rubber sheets and fibrous net and heating

JAPAN ORGANO KK 10.01.80-JP-000923

A35 J01 P71 (A88) (11.08.81) B01d-33/04 B29h-07 B30b-09/24

10.01.80 as 000923 (26PW)

Method is claimed for producing dewatering belt to be pressed to filtering cloth belts passing over a rotary drum for dewatering sludge fed between the filtering belts. The dewatering belt has projective zones at both pressing side and reverse side and is shaped as an endless belt. The object is to easily produce the dewatering belt.

A flexible and pressure-resistant tube is slid over a steel or heat resistive circular drum and wound with a raw rubber sheet. After covering the tube with a fibrous net, it is further wound with a raw rubber sheet. The tube is then heated to crosslink the raw rubber sheets. The drum is then released from the tube. (7pp)

SUGI- ★ D15 70711 D/39 ★ J5 6100-360
Determining concn. of mercury in aq. soln. - by passing through activated carbon, heating the carbon to desorb the mercury, heating in oxygen and analysing by atomic absorption

SUGIYAMAGEN IRIKIK 14.01.80-JP-002879

E32 J04 (12.08.81) G01n-21/31 G01n-31

14.01.80 as 002879 (50WB)

Method comprises (a) regulating mercury-contg. aq. soln. to 0.001-0.1 N sulphuric acid concn. and 0.001-1 mol/l halogen ion concn., (b) passing the aq. soln. through a layer of activated carbon to adsorb mercury and mercury cpd. (c) heating the activated carbon layer to 600-1000 deg.C in inert gas stream to desorb the mercury and the mercury cpd., (d) heating the desorbed mercury and the mercury cpd. to 600-1000 deg.C in oxygen atmos. to calcine and remove impurities, and (e) determining the amt. of purified mercury vapour thus obtd. by atomic absorption analysis.

The concn. of mercury in natural water, industrial waste water, etc. can be simply, rapidly and accurately determined. (4pp)

HITG ★ D15 70731 D/39 ★ J5 6100-609
Electrodialysis appts. for desalinating sea water - comprises cation and anion selective permeable membranes alternately arranged to form conc. and dil. chambers

BABCOCK-HITACHI KK 16.01.80-JP-003187

J03 (12.08.81) B01d-13/02

16.01.80 as 003187 (26PW)

Appts. comprises cation and anion selective permeable membranes alternately arranged through frames to form conc. and dil. chambers. The object is to avoid leaking of the liq. and reduce the labour for assembling and disassembling the device.

Each frame is partly cut to form a groove extending from a liq. feed port to a dialysis area of each chamber. A plate is inserted between the groove and each membrane to cover the groove and its periphery to form a hollow space defined by the groove and plate. Through the space, the liq. flows into each chamber. (4pp)

YOSH/ ★ D15 70735 D/39 ★ J5 6100-614
Filter for liq. e.g. dirty water - comprises filter cage, and inlet and outlet ports arranged to form vortex

YOSHIDA T 12.01.80-JP-002331

(12.08.81) B01d-29/20

12.01.80 as 002331 (26NS)

Filter comprises a filtering cage disposed in a housing having an inlet port at one side and outlet port at the bottom, so that the liquid is fed into the cage from its outside and a filtrate drained from within the cage. The inlet and outlet ports are so located as to form a vortetic flow in the housing and a resistive piece is located at an upper area of the inner surface of housing, so as to oppose (sic) to the outlet port of the housing. (2pp)

KAGG ★ D15 70756 D/39 ★ J5 6100-637
Ion exchange material for caesium removal - from high radioactivity waste liquor, is prepd. by shaping fused mixt. of titania and potassium oxide and crystallising

KAGAKU GIJUTSU-CHO KINZ 16.01.80-JP-003352

E34 J01 K07 (12.08.81) B01j-39/10 C01g-23 G21f-09/12

16.01.80 as 003352 (34AS)

Ion exchange material (I) exhibiting high selective ion exchangeability against Cs without any vaporisation of Cs in the heat fixing treatment as well as exhibiting low Cs-leaching rate.

bioactive waste liquor, is described.

(I) comprises K titanate $K_2O \cdot nTiO_2$ ($n=1-5$), esp. produced by fusing a fused mixt. of TiO_2 and K_2O into fibrous form, followed by crystallisation. Cs is removed by fixation from the aq. waste liquor by treating with K titanate to form by ion exchange Cs titanate $Cs_xO \cdot nTiO_2 \cdot mH_2O$ ($x=0.5-2$, $n=2-8$, $m=0-7$), adding a side of metal selected from the group of Mg, CO(II), Ni, Zn, Cu, Fe, Cr, CO(III) and Ga etc. or metal salt convertible to the metal oxide by calcination, opt. further adding excess amt. TiO_2 , and heating the mixt. at 500-1,300 deg.C. to give hollandite-type titanate cpd. (or a mixt. of the hollandite-type cpd. and TiO_2). (5pp)

OKA-★ D15 70758 D/39 ★J5 6100-663
spraying nozzle for liq.-gas mixt. - has tip with elongated slit, spray rate of liq. can be increased without increasing gas feed rate

TOKAI GOKIN KOGYO K(KYOR-) 14.01.80-JP-002857
J02 P42 (12.08.81) B05b-01/04 B05b-07/06
1.01.80 as 002857 (--)

Device consists of a liq. nozzle housed in a casing having a nozzle opening at the top end. The top opening of the casing has a shape like an elongated slit. The liq. nozzle is inserted into the casing having a space at its top end, i.e., the space is defined by the inner surface of the casing at the front side and the outer surface of the top end of the nozzle. An elongated opening is cut into the top end of the nozzle so that its long axis crosses to that of the opening of the casing.

Spray rate of liq. is increased without increase in gas feed rate, while desired liq. grain size distribution is maintained. (5pp)

ITV ★ D15 70765 D/39 ★J5 6100-684
treating waste water contg. cyanide(s) - by emulsifying waste with hydrocarbon oil contg. surfactant

NITTAN KK 12.01.80-JP-002337
J01 (12.08.81) C02f-01/02
2.01.80 as 002337 (34NS)

Surfactant e.g. polyoxyethylenedodecyl phenylether etc. is added to a liq. hydrocarbon oil e.g. kerosene etc. in amt. of 0.01-5.0 wt.%. The waste water to be treated is added to the surfactant-contg. hydrocarbon oil in wt. ratio of 60/40-99/1. The prod. is emulsified e.g. by means of ultrasonic homogeniser, pipe line mixer or motionless mixer etc. to form a H_2O oil-type emulsified fuel. The mean granular size of dispersed H_2O droplets is 0.1-50 microns. The emulsified fuel obtd. is sprayed into a combustion chamber from a spraying nozzle in admixture with first and sec. air to burn it.

Cyanides, e.g. NaCN, KCN, heavy metal cyan complex salts etc. contained in waste water are completely decomposed by spraying combustion without any generation of nitrogen oxides. (5pp)

MITO ★ D15 70766 D/39 ★J5 6100-688
treating aq. effluent, e.g. water from sewage station - first with ozone and then with metal oxide catalyst

MITSUBISHI HEAVY IND KK 14.01.80-JP-002180
J01 (12.08.81) B01d-53/34 C02f-01/78
1.01.80 as 002180 (34WB)

Effluent, e.g., secondary treated water discharged from night oil treating station etc. is decolourised and deodourised by (a) applying O_3 to the effluent to be treated to cause decolourisation; (b) adding an unreacted portion of O_3 from (a) to odourous gas generated from the effluent so as to be deodourised; and (c) passing an unreacted portion of O_3 and the odourous gas from (b) through a catalyst to accelerate the reaction between O_3 and the odourous gas and to completely decompose a remaining portion of O_3 .

The catalyst is, e.g. prepd. by carrying at least one metal oxide (e.g. of V, Cr, Mn, Fe, Co, Ni, Cu, Ag and Zn etc.) on a carbonaceous carrier e.g. made of activated charcoal, graphite, carbon fibre etc. If necessary Pt, Pd, Rh or Ru etc. may be supported on the carrier as cocatalyst. (3pp)

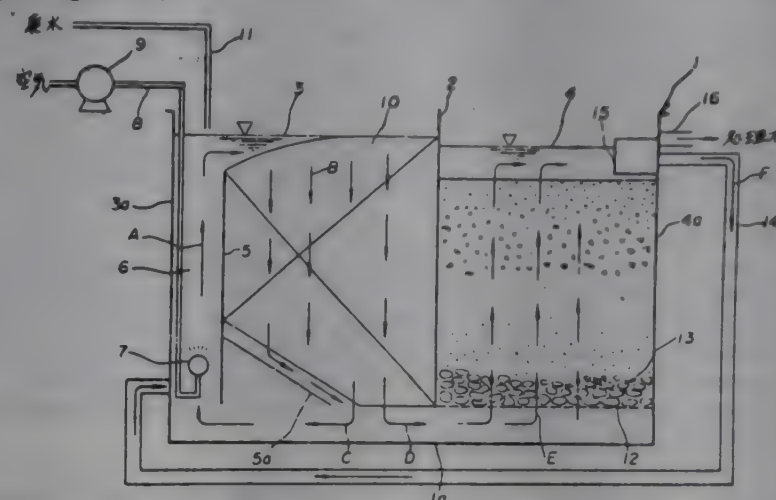
HMC ★ D15 70767 D/39 ★J5 6100-691
organic waste water treatment - by simultaneously filtering and biologically treating in partitioned vessel

SHIMIZU CONSTRUCTION 11.01.80-JP-001939
(12.08.81) C02f-03/06
1.01.80 as 001939 (34WB)

Organic waste water is purified (to BOD less than 5 ppm and suspended solids decreased) by simultaneously carrying-out biological and filtration treatments in a treatment vessel divided into two compartments. The vessel is divided into a first vessel (3) and a second vessel (4) by a partitioned wall (2) spaced away from the bottom, and a dividing wall (5) in the vessel (3) spaced away from the bottom and a diffuser (7) between the side wall of the

vessel (3) and the partitioning wall (5).

A microorganism membrane-fixing material (1) is provided therebetween, and a filler (13), e.g. zeolite and/or pH-adjusting material, etc. is charged into the vessel (4). Water to be treated is passed downwardly through the material (10), and a portion of it is recycled to a diffusing part (6). The remainder is passed upwardly through the filler, overflowed at a weir (15) and recycled to the diffusing part (6) through a recirculating pipe (14). (4pp Dwg.No.1)

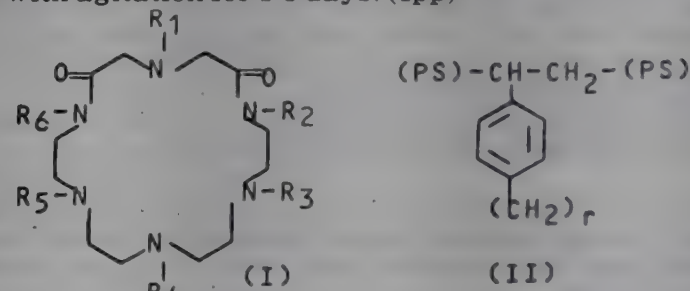


TABU/★ D15 70810 D/39 ★J5 6100-804
Macrocyclic di:amide tetramine cpds. - obtd. by reacting cyclic di:amide with e.g. polystyrene having functional gps.

TABUSHI I 00.00.80-JP-183885 (06.03.78-JP-024491)
A97 J01 M25 (13.08.81) C08f-08/30
06.03.78 as 183885 /80 Div.ex 24491/78 (22KB)

Macrocyclic diamide tetramine of formula (I) is new. In (I) R1-6 are H or (II), in which PS is polystyrene and r is 1-20. (I) is useful as adsorbent for heavy metals.

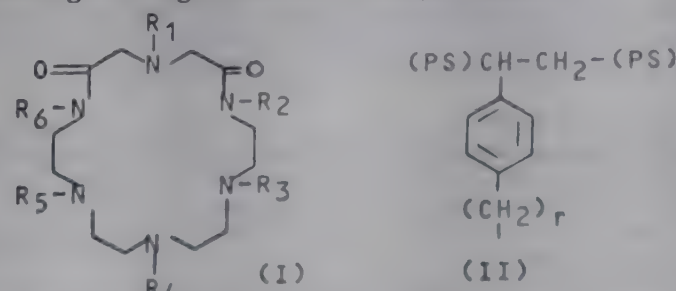
(I) is prepd. by reacting cyclic diamide having 6 N atoms or its alkyl deriv. with a polymer such as polystyrene having functional gp. such as -Cl, -Br, -I, -COOH, -SO₃R etc. in polar solvent such as chloroform, etc. under normal pressure at room temp. or under heating with agitation for 1-3 days. (4pp)



TABU/★ D15 70811 D/39 ★J5 6100-805
Macrocyclic hexamine cpds. - useful as adsorbent for heavy metals in waste water

TABUSHI I 00.00.80-JP-183886 (06.03.78-JP-024492)
A97 J01 M25 (13.08.81) C08f-08/30
06.03.78 as 183886 (22AS)

Macrocyclic hexamine cpds. of formula (I), (where R1-6 are each H or a gp. (II), in which PS is polystyrene and r is 1 to 20), are new. (I) are useful as adsorbents, of heavy metals, such as nickel, copper, mercury, etc., contained in waste water, etc. (I) are prepd. by reacting cyclic diamide containing 6 N atoms or its alkyl deriv. with polymer such as polystyrene contg. functional gp. such as -Cl, -Br, -I, -COOH, -SO₃R, etc. in polar solvent such as chloroform, etc., under normal pressure at room temp. or under heating with agitation for 1-3 days. (5pp)



AGEN D15 37391 C/21 = J8 1036-852
Filter for removing heavy metals from aq. soln. - comprises fine adsorbent particles dispersed between fibrous material e.g. rayon fibre

AGENCY OF IND SCI TECH 05.10.78-JP-123045
A91 J01 M25 (27.08.81) *J55050-439 C02f-01/62 C22b-07 + B01d-39/08 B01j-20
05.10.78 as 123045 (121BZ)

The filter for collecting heavy metals consists of fibrous materials and heavy metal adsorbing fine particles of 50 mesh (pref. up to 100 mesh) dispersed between the fibrous materials. The filter is formed in the shape of paper, pad or piller-shape etc.

Used for removal of heavy metals such as Hg, Cd, Pb, Cr, Cu, Zn, Fe, Mn, and Ni in an aq. soln. Heavy metals in an aq. soln. can be removed effectively and economically using the filter having the heavy metal adsorbing fine particles in it, and also the filter has an excellent strength.

The fibrous material is organic- or inorganic-fibre, and linter pulp, refined wood pulp, hemp pulp, rayon fibre, esparto pulp and synthetic fibre are pref. as the organic fibre, and glass fibre, asbestos and rock wool are pref. as the inorganic fibre. The heavy metal adsorbing material is e.g. cation exchange resin, anion exchange resin, chelate resin and active carbon etc., and a chelate resin having iminothiol radical and hydroxyl radical in the molecule is pref. (J55050439) (7pp)

SMHL D15 27204 Y/16 = J8 1036-976
Vertical axis aerating rotor for waste water - can be operated at higher speeds than previous inverted cone turbine rotors

SIMON HARTLEY LTD 10.01.76-GB-000927
(27.08.81) *BE-849-315 B01f-03/04 B01f-07/16 C02f-03/16 C02f-07 10.01.77 as 001844 (448RP)

The rotor comprises a flat plate, pref. circular, which rotates in a horizontal plane about the vertical axis. The underside of the plate is fitted with several, angularly spaced, similar blades extending radially from a central region to the periphery.

The depth of each blade increases from each end to a max. at a crest between the ends. The lower edge of each blade is fitted with a plate which forms wings extending from both sides of the lower edge, at least for part of the length of the blades lower edge between the outer end and the crest. The outer end of each blade pref. extends beyond the periphery of the horizontal plate.

Baffles are fitted in the tank below the rotor to prevent turbulence in this zone. The baffles are pref. four plates set in vertical planes and forming a right-angled cross on a central axis coinciding with the axis of the rotor.

The higher speeds permit the use of smaller, more economical drive motors and gear boxes. (J52085761) (4pp)

MITU ★ D15 71033 D/39 ★ J8 1036-992
Waste water contg. organic anions treatment - by treating with anion exchange soln., isolating and dewatering dirt layer and recovering solvent

MITSUBISHI CHEM IND KK 10.04.74-JP-040448
F06 J01 (29.08.81) B01d-11/04 C02f-01/26
10.04.74 as 040448 (AT)

Waste water contg. organic anionic materials, e.g. dyeing wastes, is treated with an anion-exchange soln; the dirt layer formed between aq. and organic solvent phases is isolated and dewatered by heating at 60-150 deg.C. and the org. solvent is recovered from the heat-treated material.

In an example waste water (COD 630mg/l) was treated with an anion-exchange soln. (10% Cg-45 higher alkylamines in kerosine). The waste water was adjusted to pH 4.5 with H₂SO₄ and treated with the solvent in an extn. tower. The treated water (COD 130 mg/l) was continuously removed and the dirt layer formed between the aq. and org. and solvent phases was collected and pptd. to separate the dirt layer and organic solvents. The dirt layer was distilled to obtain a mixt. of water and kerosine from which kerosine was isolated. The distn. residue was a slurry contg. the organic solvent and water from which the organic solvent was isolated. The alkylamine-kerosine solvent in the dirt layer was completely recovered. (J50133163) (4pp)

TEXC D15 22279 U/16 #J8 1037-162
Waste water contg sulphide - removal of sulphide as sulphur by hydrocarbon and oxidn

TEXACO INC 25.02.71-US-119054 (21.02.73-JP-020296)
H04 (29.08.81) *US3725-270 C01b-03/36 + C02f-01/02 C10g-09
21.02.73 as 020296 (-NS)

Waste H₂O contg. S₂- is mixed with a hydrocarbon film in a wt. ratio of 0.1-6.0 and partially oxidised with an O₂-rich gas in the reaction zone of a free-flow non-catalytic synthesis gas generator at 1500-3500 deg.F and 1-250 atmos. press. to give an effluent of H₂, CO, CO₂ and H₂O with minor amounts of H₂S, CH₄, A, N₂, COS and C particles. Pref. the C particles are sepd. and the H₂S recovered from the synthesis gas leaving the separator. The

from petroleum refining and petrochemical mfr.

The process has the advantages that there is less pollution on disposing the S₂ free H₂O into lakes and rivers, than with process that stripped sulphides from the H₂O by air, steam or by oxidn. to S₂O₃²⁻ and there is less air pollution. PhOH is also destroyed by this process. (J49114263) (7pp)

YAWA D15 13064 A/07 = J8 1037-164
Granular adsorbent for treating waste water and gas - comprises a mixt. of active carbon powder and hydrophilic protein

NIPPON STEEL CORP 13.05.74-JP-052261
J01 (29.08.81) *J50144-684 + C01b-31/14

13.05.74 as 052261 (38BL)

The adsorbent a mixt. contg. mostly active C powder with hydrophilic proteins, odoriferous components such as NH₃, H₂S and mercaptan from waste gases.

In an example 10 pts. C (by-prod. from petroleum cracking) were added to 70 pts. water contg. 2 pts. gelatin. The mixt. was evaporated at 80-90 deg.C until a viscous paste was formed. The viscous paste was then poured into a porous plate having 5 mm pores and air dried to obtain cylindrical granules. The granules were further dried at 100 deg.C for 1 hr. to obtain a granular adsorbent with specific gravity 0.26, pH 60, and a I- adsorbing capacity of 0.49 g/g. When 100 ml of a HgCl₂ soln. contg. 5 ppm Hg²⁺ was treated with 1 g of the adsorbent, the Hg²⁺ concn. in the resulting water 1, 8 and 24 hr. after the treatment was 1.58, 0.06. and 0.04 ppm resp. (J50144684) (4pp)

DEGS D15 03814 W/03 = J8 1037-166
Powdered molecular sieves of zeolite type - by crystallising synthetic zeolite and subjecting to shear forces

DEUT GOLD & SILBER 29.06.73-DE-333068
J01 (29.08.81) *BE-817-098 C01b-33/28

28.06.74 as 074216 (DJ)

Powdered molecular sieves of the zeolitic type, esp. for softening water, are prepd. by (a) hydrothermally crystallising a mixt. of synthetic aluminosilicate and water, and before, during or after (a), (b) subjecting to shear forces to obtain crystalline particles with a size less than 2, esp. 1 micron.

Has a slow sedimentation rate in liqs., esp. paints. (J50070289) (3pp)

SHIN. D15 33956 A/19 = J8 1037-800
Phosphatase activity determ. by oxidn. of phenol with iodine - giving a coloured complex which can be measured colorimetrically

SHINOTEST KENKYU-SH 08.09.76-JP-106779
B04 E14 J04 (D16 S03 S05) (02.09.81) *J53032-795 + C12q-01/42
08.09.76 as 106779 (173BL)

Method comprises (a) treating a sample soln. with the substrate (typically phenylphosphoric acid) soln. to liberate free phenol; (b) oxidising the phenol with iodine (opt. prepd. in-situ by oxidising iodide ion with a complex salt such as Ce⁴⁺ complex with EDTA), followed by reacting the resulting quinone with a chromogen cpd. to develop a colour; and (c) measuring the optical density of the developed colour, from which phenol content in the mixture and phosphatase activity of the enzyme-contg. sample are derived.

The iodine-based oxidising reagent has long storage life and gives very low blank value. Method is applicable to phosphatase activity of human blood serum and phenol in waste water, etc. (J53032795) (6pp)

SUMH ★ D15 71056 D/39 ★ J8 1037-843
Device for sepg. solids from supernatant - comprising impeller mounted on vertical rotary shaft in tank with conical porous cover (J5 5.10.77)

SUMITOMO HEAVY IND(KYOT-) 31.03.76-JP-034277
(02.09.81) B01d-21 B01d-43 B01f-03/08
31.03.76 as 034277 (26DJ)

A device is claimed for sepg. dirty water in its purificn. process, into suspended solids and supernatant. It comprises an impeller mounted on a vertical rotary shaft inserted in a tank and a conical porous cover mounted on the tank to form a closed space therein. (J52118668) (3pp)

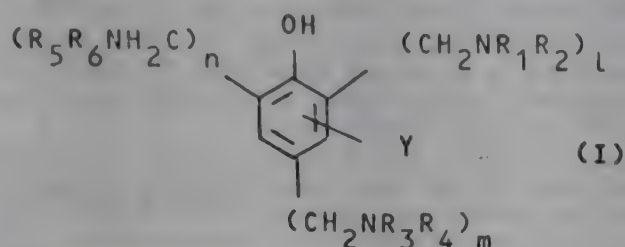
MITU D15 20258 B/11 = J8 1037-844
Cationic flocculant esp. for treating effluents - consists of water-soluble polycondensate of epihalohydrin and phenol, formaldehyde and amine reaction prod.

MITSUBISHI CHEM IND KK 24.08.77-JP-101208
A91 (A21) (02.09.81) *DE2835-876 B01d-21/*
24.08.77 as 101208 (200DH)

Cationic polymeric flocculant consists of a water-sol. polycondensn. prod. of an epihalohydrin and an amine (a) of formula (I) (where Y is H or lower alkyl; R1-R4 are not identical

note 0) or a mixt. of (a) with at least 1 cpd. (b), e.g. NH₃, monoalkylamines, dialkylamines, alkylene diamines, aromatic amines, polyalkylenepolyamides and cyclic amines, provided amt. of (a) is 50 mol.% of (a) + (b).

The flocculants are used for treating industrial effluents, e.g. from paper, dye or food industry, for purifying river water, accelerating the settling of sludge, treating oil-contg. streams, accelerating clay filtration in cement mfr., for concn. and filtration of clay sludges in porcelain or ceramic industry, for dehydrating concentrates and for clearing streams contg. (anionic) surfactants. The flocculants may be combined with other inorganic and/or organic flocculants, e.g. polyacrylamide. (J54035185) (7pp)



WASE- ★ D15 71057 D/39 ★ J8 1037-845
Sedimentation pond suspension separator - comprising inclined parallel plates in precipitator and rectifying plates (J5 4.8.79)

WASEDA GIKEN KK 14.12.77-JP-150166

(02.09.81) B01d-21/02

14.12.77 as 150166 (26HM)

Device for sepg. suspension, e.g. industrial water to be purified, comprises inclined parallel plates disposed in a precipitator located in a pond, and rectifying plates located in front of the parallel plates. The rectifying plate has through-holes of 0.3-3cm. (J54099269) (3pp)

KUBI ★ D15 71058 D/39 ★ J8 1037-846
Sludge scraper - comprising oscillatable scraping blades mounted on vertical central rotary shaft of sedimentation shaft (J5 9.10.78)

KUBOTA KK 23.02.77-JP-019634

(02.09.81) B01d-21/06

23.02.77 as 019634 (26HM)

Device is for scraping sludge pptd. in the bottom of sedimentation tank having a vertical centre rotary shaft, on which blades are mounted to scrape the sludge to a central pit. Each blade is oscillatable relative to the arm in the scraping direction. (J53115561) (3pp)

YAGI- ★ D15 71059 D/39 ★ J8 1037-847
Sedimentation tank for precipitating fine solids in river water - appts. has mixer tank in upper area of sedimentation tank (J5 1.4.78)

YAGISHITA KK 22.09.76-JP-113153

(02.09.81) B01d-21/08

22.09.76 as 113153 (26AT)

Appts. for quickly agglomerating and precipitating suspended fine solids in water e.g. river water comprises a mixer tank located in an upper area of a sedimentation tank. The former tank mixes the solids with an agglomerate to form flock. (J53039646) (6pp)

WASE- ★ D15 71060 D/39 ★ J8 1037-848
Appts. for draining sludge precipitated in sedimentation tank - for treating waste water, comprises rotatable sepn. plates supported in tank (J5 23.12.78)

WASEDA SETTLING KK 30.05.77-JP-062195

(02.09.81) B01d-21/24

30.05.77 as 062195 (26PW)

A method and appts. are claimed for draining sludge precipitated in a sedimentation tank for treating waste water. The appts. comprises two or more septg. plates turnably supported in the tank. They are vertical when precipitating sludge. When sepg. it, they are horizontal. (J53148150) (11pp)

AITO ★ D15 71062 D/39 ★ J8 1037-850
Filter press e.g. for aq. effluent - comprises filter plates movably mounted on guide plates using rods and suspension means, and links pivoted to rods (J5 29.9.79)

MITSUBISHI HEAVY IND KK 24.03.78-JP-032890

J01 (02.09.81) B01d-25/12

24.03.78 as 032890 (26AS)

Filter e.g. for dirty water comprises filter plates movably mounted on guide plates through support rods and hangers attached to the rods, and links pivoted to the lower ends of the support rods and connected to the plates. (J54125576) (3pp)

MORI/ ★ D15 71064 D/39 ★ J8 1037-853
Filter element for treating waste water etc. - has circular discs arranged in parallel between upper and lower end plates (J5 18.10.79)

MORI T 16.03.78-JP-029226

J01 (02.09.81) B01d-25/16

16.03.78 as 029226 (26RP)

A filter element for filtering a fluid such as waste water and air, has circular discs arranged in parallel between an upper and lower end plates. Each disc has an annular weir erected at the marginal edge to form a filtering gap between the top edge of the weir and bottom of adjacent disc. (J54132871) (6pp)

DAIK- ★ D15 71068 D/39 ★ J8 1037-857
Rotary drum filter - has extruder for draining sludge (J5 2.10.79)

DAIKO KIKAI KOGYO K 27.03.78-JP-034050

J01 (02.09.81) B01d-33/06

27.03.78 as 034050 (26NS)

Device is for filtering dirty water, comprising a drum rotor horizontally disposed in a water tank, rotary leaf filter located on the rotor in contact with it, skimmer located in part contact with the filter, and extruder for draining sludge scraped by the skimmer. (J54127074) (2pp)

OTOB/ ★ D15 71069 D/39 ★ J8 1037-858
Muffling device for water drain - comprising horizontally supported net through which water overflow passes (J5 29.9.79)

OTOBE I 22.03.78-JP-033373

P14 (02.09.81) A01k-63/04 B01d-35/02

22.03.78 as 033373 (26DJ)

A device is claimed for absorbing the sound of water drained from a water cleaner for draining filtered water from a nozzle above water. A net is horizontally supported by a support fixed to the cleaner, above the water surface to receive the drain. (J54125574) (5pp)

SOGO- D15 11842 C/07 = J8 1037-862
Appts. for blowing air or other gas into water and stirring - used to supply oxygen to water in fish farm and in sewage treatment

SOGO PONPU SEISAKUS 30.03.78-JP-037590

+ P14 (02.09.81) *J55001-802 B01f-03/04 + A01k-61 B01f-05/10 C02f-01/74

30.03.78 as 037590 (26JB)

The appts. comprises a hollow vertical stainless steel shaft and rotary nozzle main unit mounted on the top end of the shaft. The unit has sideways extending drain pipes each having a nozzle at the top. The nozzle directs in the turning direction of the pipes extending in a horizontal plane.

The hollow shaft is connected to a water pump and disposed in the tank. A gas adding structure is inserted between the hollow shaft and pump. The hollow space is communicated with the nozzles. (J55001802) (5pp)

MOLE- D15 54100 C/31 = J8 1037-874
electrolytic treatment of waste water - by adding acid and opt. metal oxide catalyst, for removing colour components, nitrogen-contg. cpds. and BOD components

MOLENG KK 12.12.78-JP-152723

(02.09.81) *J55079-086 B01j-23/34 C02f-01/46

12.12.78 as 152723 (51BZ)

The method comprises supplying the waste water to an electrolytic cell alternatively equipped with anodes and cathodes, adding a little hydrochloric acid and/or sulphuric acid to the waste water to give pH less than 4, and electrolysing the water in the cell to remove BOD, colour components, and nitrogen contg. cpds. If necessarily, metal oxide, such as, V₂O₅, Cr₂O₃, MnO₂, Fe₂O₃, Co₃O₄, NiO, CuO, Cu₂O, ZnO, MoO₃, CdO, WO₃ or SnO₂, is added as a catalyst to the water. Specifically waste water adjusted with H₂SO₄ to pH less than 4 is introduced from an inlet into an electrolytic cell equipped with anodes and cathodes, and electrolysed. Pellets of MnO₂ are supported around the electrodes with wire net. (J55079086) (4pp)

AUTO- D15 88476 Y/50 = J8 1037-877
Waste aqueous solutions treatment - to ppte. metals in the form of salts by adding phosphoric acid and an iodide

AUTOMATED MEDICAL 25.05.76-US-690035

M25 (02.09.81) *DE2659-711 C02f-01/62

20.12.76 as 153271 (95HM)

The removal of the metals Cu, Cr, Zn, Cd, Ni, Pb, Pt, Sb, Fe, Mn, Al, Th, Sn, Hg, V, Rh, or Ag from spent aq. solns. by pptn. of their salts comprises (a) adding, apart from phosphoric acid, an excess of a iodide ion to the aq. soln. under formation of a simultaneous oxidn. redn. cycle, (b) precipitating the salt of the metal of less soluble valency state from the soln.

The method is applied to aq. soln. before processing in the water treatment plant, and is suitable for the recovery of metals

from plating and wash solns., and waste solns. in general.
(J52144162) (6pp)

PETE/★ D15 D/39 ★SE 8100-371
Waste water cleansing process - involves interconnected chemical feeds and pumps for passage through contact filter
PETERSON G 22.01.81-SE-000371 (07.02.80-SE-000976)
(07.09.81) B01d-37 C02f-01/52

22.01.81 as 000371 (1161WB)

Waste water is cleaned by a contact filter, with different chemicals fed to it from two supply points. One of two groups of pumps is used to feed the water to the filter, dependent upon the level of flow.

The pumps and chemical supply points are so connected that when one pump is used one specific chemical is supplied, and when the other pump is in action, the second chemical is fed to the water. The two chemicals used are pref. aluminium sulphate and iron chloride.

HUBE- D15 17682 A/10 = SU-793-374
Two-stage activated sludge purificn. of waste water - uses higher rate BOD loading in first than in second stage

MACH HUBERT W CO (HBMF) 10.09.76-DE-640875
(30.12.80) *BE-858-431 C02f-03/02

09.09.77 as 522949 (GW)

The waste water undergoes a first stage aeration with activated sludge at a high rate B.O.D. loading. This is followed by clarification, recycling of required sludge and disposal of excess sludge. The clarified liq. is then subjected to a second stage aeration with activated sludge at a lower rate B.O.D. loading than the first stage.

The first stage biological loading in 10 kg. BOD₅/m³ per day with an activated sludge rate of at least 2 kg BOD₅/kg. of dry matter per day. Treated effluent from the first stage is passed through an intermediate clarifier to undergo rigorous sepn. of first stage sludge before being passed to the second stage biological treatment. Sufficient excess sludge is taken out of the cycle at the intermediate clarifier to retain a young sludge condition. The second stage biological treatment is of the extended aeration type of activated sludge system operating at low B.O.D. loading.

The process provides optimum combination of high rate B.O.D. loading in the first stage with extruded aeration low rate loading in the second stage. The combination offers max. treatment capacity to a high degree of purificn. in a compact, economical installation. Bul. 48/30.12.80. (2pp)

SNPA D15 42019 X/23 = SU-793-375
Purifying oil drilling effluent - contg lignosulphates or biopolymers, using microbiological process, after removing clays

SOC PETROLES AQUITAINE 26.11.74-FR-038681
H01 + Q49 (30.12.80) *BE-835-739 + C02f-03/34
26.11.75 as 193206 (GW)

The effluent from oil drillings is purified by the following process. The effluent is acidified to ppt. clays, which are then sepd.; the sepd. liquor is neutralised and a bacterial culture is added, obtd. aerobically in an aq. medium contg. lignosulphates and/or biopolymers with phosphorus and nitrogen nutrients and no other carbon mats. The liquor is then maintained in aerobic conditions for the culture to grow until the biological oxygen demand (BOD) of the liq. falls below the desired limit. Then the liquor is disposed of and part of the mycelium bacteria remaining are recovered.

As a result of new legislation, the liquor must fulfil certain requirements before disposal including a BOD below 40 mg/l. Previous treatment processes have not been adequate to suppress the BOD to the reqd. level, partic. with liq. contg. lignosulphates and biopolymers used to facilitate drilling. The above process overcomes this. Bul. 48/30.12.80. (3pp)

UYVO=★ D15 71230 D/39 ★SU-793-598
Water demineralisation - includes mixing partly electrolysed water with remainder of water

VORON UNIV 25.12.78-SU-702149
(07.01.81) B01d-13/02

25.12.78 as 702149 (132VE)

To increase productivity and energy economy, a volume of proportion of water electrolysed to required salt compsn. calculated from equation $V/V_0(1-C/C_0)/(1-C_m/C_0)$, where V_0 is the initial water volume, and C_0 , C and C_m are the salt concn. in the initial soln. set for the final water, and in the diluate and corresp. to the min. mean dialyses resistance, respectively, while the electrolysis is carried out to the salt concentration of minimum mean dialyses resistance, and the diluate is mixed with the remainder of the water. (2pp)

ARTE/★ D15 71376 D/39 ★SU-793-944
Water-thermal-deaerator - has automated pressure regulator coupled to mixture outlet, for optimal deaeration

ARTEMEV V P 11.05.78-SU-614172

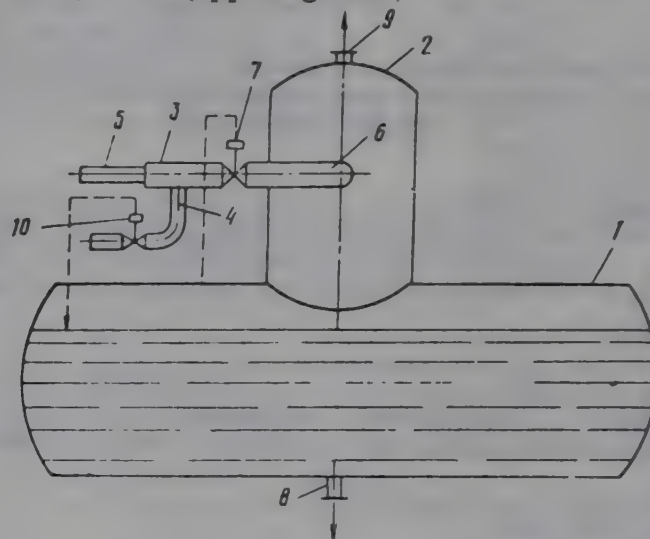
Q72 (07.01.81) C02f-01/20 F22d-01/30

11.05.78 as 614172 (1513WD)

The thermal deaerator has improved efficiency, speed of operation and is metal economical. The pressure regulator (7) is coupled to the mixing chamber (3) outlet channel (6). The reservoir tank (1), deaeration column (2) joined to the mixing chamber (3) lead to channels for deaeration water (4), heat carrier (5) and resulting water mixture (6).

Superheated water passes from channel (5) to mixing chamber (3) along with water for deaeration (4). The pressure of the mixture is reduced at pressure regulator (7) producing uniform boiling. The mixture tangentially enters the deaeration column (2) and flows into the tank reservoir (1).

Pipe (8) leads the water to the boilers while the discharged air leaves through pipe (9). As the water mixture temperature falls, the pressure regulator registers it, and water inflow (4) is adjusted inconjunction with the tank reservoir level monitor (10) reading. Bul.1/7.1.81. (2pp Dwg.No.1)



ULYA=★ D15 71378 D/39 ★SU-793-946
Vacuum deaerator for water - has cut/off on vapour discharge and flow regulator linked to ejector cut/off and flowmeter

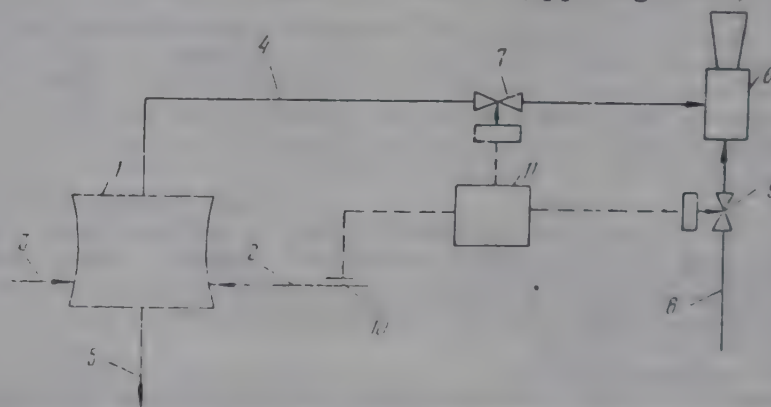
ULYAN POLY 05.12.78-SU-695468

(07.01.81) C02f-01/20

05.12.78 as 695468 (132VE)

The deaerator comprises water (2) and heating medium (3) feed piping and water (5) and vapour (4) discharge piping, with linkage to an ejector 6 having a cutoff (9) in the ejector-medium feed main (8), and flowmeter (10) in the piping (2).

To increase economy, a cutoff (7) on line (4), supplements a flow regulator (11) linked to parts (10, 9 and 7). (2pp Dwg. No. 1)



TRIF/★ D15 71379 D/39 ★SU-793-947
Water thermal deaerator - has perforated plates, steam heat carrier and steam cavity sensitive to pressure fluctuations

TRIFONOV N N 05.02.79-SU-721718

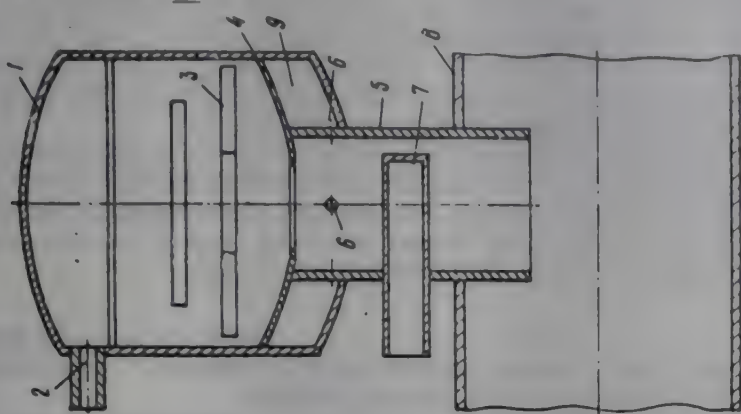
Q72 (07.01.81) C02f-01/20 F22d-01/32

05.02.79 as 721718 (1513WD)

The thermal deaerator is used for efficient removal of corrosive gases from water, of especial use in heating power plants. Efficiency is improved by using a water drain and steam cavity joined to connecting pipe by a ring of perforations, producing dynamic pressure equilibrium.

The appts. contains a deaeration column (1) with water pipe (2), perforated plates (3) and water discharge drain (4). The connecting pipe (5) with perforations (6) and steam input pipe (7) joins the column (1) with reservoir tank (8) of deaerated water.

The water flows through branch pipe (2) into column (1), perforated plates (3), through drain (4) pipe (5) into reservoir (8). Foam leaves channel (7) and simultaneously, heats water stripping from plates (3) (raising pressure), and enters cavity (9). When pressures of pipe (5) and cavity (9) are equal, deaeration efficiency is optimal and sensitive to pressure fluctuations. (ul.1/7.1.81. (2pp))



TIGWELL/★ D15 71553 D/39 ★US 4288-206
Automatic multiple water sampler - has glass chambered syringes with plastics pistons for sampling and discharging water

TIGWELL DC 15.08.79-US-066518
J04 Q56 (08.09.81) F04b-07 F04b-21/08
15.08.79 as 066518 (67BZ)

Sampler for delivering multiple independent water samples comprises a drive bar mounted in a frame for linear reciprocation and glass chambered syringes having movable plungers coupled to the drive bar and mounted in the frame with their axes parallel to the direction of the bar reciprocation. A valve body on the frame has a glass chamber opening to the chambers of the syringes and an inlet and outlet for each syringe.

A valve spool shiftably mounted in the valve body chamber has relieved regions for alternately connecting the syringe chambers with the inlet and outlet when the spool is shifted. The plungers have non-wetting plastics pistons in wiping contact with the syringe chambers and the valve spool is formed of non-wetting plastic.

The appts. is esp. suitable for use with water sorption columns because the samples are delivered under pressure. In the appts. plastics parts cooperate with glass parts so that leakage arising from plastics deformation when plastics parts coact is avoided. (1pp)

ENVI ★ D15 71558 D/39 ★US 4288-229
Continuous determ. of total organic carbon in aq. halide solns. - by oxidn. in presence of mercuric mono:halide, then UV radiation

ENVIROTECH CORP 21.04.80-US-142577 (07.03.80-US-128066)
J04 S03 (08.09.81) G01n-31/12 G01n-33/18
21.04.81 as 142577 C.i.p.4273558 (478BZ)

Total organic C (I) in each of several discrete aq. samples contg. halide ion is determined as follows: (a) an aq. soln. contg. an oxidising agent (II) and HgX(+) (X is halogen) but no insol. ppt. is continuously passed to a reactor; (b) samples are added in succession to the reactor; (c) the soln. and each sample are irradiated with electromagnetic energy from a source immersed in the aq. soln. to oxidise organic matter to CO₂; (d) produced CO₂ is removed and (I) in the gas is measured.

Method is rapid, accurate, and avoids the known suppression of the rate of oxidn. of organic matter by halide ion interference. Method is esp. useful for determining the (I)-content of a no. of sea-water samples. (8pp)

DAICEL ★ D15 06878 D/05 = US 4288-278
Membrane filtering element for reverse osmosis etc. - where pitch of corrugations on porous sheet is increased at longitudinal end for easy connection

DAICEL CHEMICAL IND 12.05.79-JP-058321 (08.12.78-JP-152326)
J01 + P72 (08.09.81) *J55152-502 + B31f-01/34
12.12.79 as 100237 (6KB)

Sealed semipermeable membrane units, for ultrafiltration, reverse osmosis, etc., are made by appts. which has folders for creating a running strip of synthetic resin membrane with a superposed thin spacer sheet.

The folders comprise upper and lower reciprocating blades which form loose folds, and an adhesive applicator before or after the blades applies adhesive to the margins of the strip and superposed sheet. The pleated units are fed into cases via their open lids, and are compressed when in the cases. (21pp)

ENVI ★ D15 71594 D/39 ★US 4288-803
Electrochemical process using earthed porous bipolar electrode - as membrane esp. for removing heavy metal from water and sewage

ENVIRON SCI ASSOC 29.11.79-US-098689 (20.10.78-US-953335)
J03 M25 X25 (08.09.81) C02f-01/46 C25c-01
29.11.79 as 098689 (1501BZ)

An electrochemical processing system employs an earthed porous bipolar electrode, the two sides of which are maintained at different electrical potentials w.r.t. reference electrodes. Material, contained in a soln. contacting one side of the electrode, is reacted to form a product which is deposited on that side of the electrode, passes through the electrode and then reacts with a second soln., contacting the other side of the electrode, to form a second product. This second product may then be stripped into the second soln.

The system is relatively inexpensive and esp. useful for removing trace quantities of heavy metals and their complexes from naturally occurring water, waste water and sewage plant effluent and sludge. Other uses include removal of anionic contaminants (e.g. cyanide) and organic contaminants (e.g. Chlordane) from aq. solns. and chemical synthesis e.g. methanol oxidn. to aldehyde or formic acid. (9pp)

BRIG/★ D15 71601 D/39 ★US 4288-323
Water purification unit for domestic heater - helical impeller in pipe surrounded by DC energised coil

BRIGANTE M F 27.05.80-US-153219 (05.02.79-US-009669)
X27 (X25) (08.09.81) C02f-01/48
27.05.80 as 153219 (1358NS)

Apparatus for attachment to an appliance, partic. a domestic heater or boiler, includes a coil around a pipe section over its whole length and energised by a 24 V. d.c. supply, and a shaft in the pipe with a solid helical ferromagnetic impeller with 6-8 flights.

Shafts ends are supported by bearing bushings each secured to a threaded plug with a central projection for installation into internally threaded T-shaped fitting secured to the pipe ends. Each fitting includes an internally threaded post for water feed and discharge so that the flow path is free from obstruction to give max. flow with minimal deposits and corrosion. (5pp)

URDA/★ D15 71602 D/39 ★US 4288-324
Skimming appts. with baffles preventing debris entry - with cleaning fingers interdigitated between baffles and rocked by skimmer motion

URDANOFF H D 24.10.79-US-087745 (31.08.78-US-938644)
Q42 (08.09.81) E02b-15/04
24.10.79 as 087745 (295BZ)

A skimming appts. removes a floating layer from a body of liquid. The skimmer is semi-immersed in the liquid and has an inlet opening and a hollow interior compartment. The skimmer is supported so that it tilts from a recumbent position generally parallel to the liquid surface, to an inclined position in which the floating layer is admitted through the inlet. Contaminated liquid may be removed from the compartment.

Laterally spaced baffles opposite the inlet are mounted on the skimmer support for blocking debris. Cleaning members protrude forwardly between the baffles from the skimmer for vertical movement with respect to the baffles. On tilting of the skimmer, the members push away the trapped debris.

For continuously removing a top floating contaminant layer, specifically a floating tramp oil layer, from clarifying reservoirs such as sumps, pits or lagoons. (9pp)

SHAN/★ D15 71603 D/39 ★US 4288-325
Filter for conventional water tap - has two part body holding diffusing screen above filter pad

SHANN T P 09.10.79-US-082806
(08.09.81) B01d-25/02
09.10.79 as 082806 (1358KB)

A filter has upper and lower separable components, the upper attachable to the tap and with a diffusing screen in the flow passage and bowed to shallow dome shape. The lower component has a single thin porous filter pad no more than several mm thick to receive water sprayed through the screen.

The pad is supported on a mesh screen and is held against this by a sealing ring, the sandwich being rigidly secured between projections from the internal walls of both components. The diffusing screen is less than 1/4 inch above the filter to reduce impact force, and the lower component has an exit chamber delivering water in a steady stream. (4pp)

KEEF/ D15 79335 C/45 = US 4288-326
Reverse osmosis water purificn. with pressurisation by reciprocating p - with lost motion providing energy recovery from concentrate

KEEFER BG 06.04.79-US-027664 (28.03.77-US-782540)

Q56 (08.09.81) *EP-18-128 B01d-13 + B01d-31

06.04.79 as 027664 C.I.p 4187173 (+ 14.3.78-US-886429) (6KB)
Membrane separation appts. esp. for water purification or desalination, has a crank-driven feed pump with an internal displacer for separating feed water from recycled concentrate liquids, which liquids are depressurised, before the pump, by relief valves actuated by the pump crankshaft.

Operating press. is generally kept comparatively low, which reduces wear in the appts. esp. of valves. Specifically multi-pump appts. has one pump controlling another. (23pp)

BETZ * D15 71604 D/39 ★ US 4288-327
Scale inhibiting compsn. for water-contg. systems - comprises copolymer of sulphonated styrene and maleic anhydride

BETZ LABS INC 19.01.79-US-004646 (08.09.75-US-610952)

A97(A13) (08.09.81) C02f-05/10

19.01.79 as 004646 (+ 25.5.76-US-689755 (928NS))

Method of controlling the formation and deposition of materials on the structural parts of a system contg. an aq. medium which contains ions, comprises introducing into the aq. medium a polymer (I) consisting of sulphonated styrene and maleic anhydride units in a ratio of 2:1 to 4:1, pref. 3:1. Pref. the amt. of (I) introduced is 0.5-100, esp. 2.5-25 ppm of water and (I) has a mol.wt. of 500-100000 and is in the form of the Na salt.

The method is partic. applicable to the prevention of scale, esp. Ca phosphate, in cooling water, scrubber and steam generation systems, evaporators, economisers etc. The method is applicable to the control of deposition of Ca phosphate, Mg phosphate, Mg silicate, Ca silicate, Ca carbonate, Ca sulphate and/or Fe oxide and to the dispersion of iron oxide and/or clay. (11pp)

IRON- * D15 71605 D/39 ★ US 4288-328
Treatment of iron contg. waters - by addn. of alum, aeration, liming, addn. of recycled iron:aluminium sludge, and chlorination

IRON REMOVAL SPECIA 28.11.80-US-211095 (19.07.79-US-045609)

E31 (08.09.81) C02f-01/52

28.11.80 as 211095 (478BZ)

Water contg. Fe(2+) cpds. (I) is treated as follows: (a) 1-50 mg/l of alum (II) is added: (b) the water is aerated thoroughly with air to remove dissolved gases and oxidise (I) to Fe oxides; (c) lime is added to pH 7-9; (d) recycled hydrous Al-Fe floc sludge (III) (from step (h)) is added to give H2O:(III) vol. ratio is 2-30%; (e) water is kept long enough to form (III) including the Fe oxides; (f) C12 is added (to final concn. at least 0.5 mg/l); (g) (III) is sepd. from the water; and (h) a part of the collected (III) is recycled to step (d). (III) has Fe:Al wt. ratio 15.7-57.3.

Step (d). Prefd. (III) recycle ratio s are e.g. 5% for water contg. 5 mg/l Fe to 21% for water contg. 17mg/l Fe. (III) has solids concn. ca 0.1-0.5 % by wt. Step (e) Retention time is ca 1 min. per mg/l of (I).

Addn. of (II) and recycling a portion of (III) drastically reduces the amt. of C12 required, and enhances Fe oxidn. and removal. (5pp)

HUBE * D15 71613 D/39 ★ US 4288-342
Spray dried inorganic water softening beads - contg. sodium aluminosilicate, sodium silicate, and soluble sodium salt

HUBER J M CORP 21.06.79-US-050938 (03.03.78-US-883006)

E33 (E34) (08.09.81) C02f-01/42 C11d-03/12 C11d-07/20 C11d-11/02

21.06.79 as 050938 (478BZ)

Spray-dried inorganic H2O-softening bead compsn. consists of (by wt.): (a) at least 66% Na aluminosilicate (I); (b) 1-20% Na silicate (II); (c) 1-20% solubilising agent (III); and (d) N2O (to 100%). (I) (anhydrous basis) has SiO2:Al2O3 ratio 2-4:1, and Na2O:Al2O3 ratio 0.8-1.2:1. (II) has SiO2:Na2O ratio 1-3.3:1. (III) is a soluble Na phosphate Na2CO3, NaHCO3, Na tetraborate, or Na2SO4.

Beads have density 36-46 pref. 40-42 lb/ft3. (I) pref. has SiO2:Al2O3 ratio 2-3:1 (US 4041135). (II) pref. has SiO2:Na2O ratio ca 2.5:1 (pref. prepd. by US 3838192). (III) is pref. Na2SO4. The compsn. is prepd. by spray drying an aq. slurry of (I)-(III) at inlet temp. below 540 deg.C. Beads are highly effective H2O-softeners, and may be dry blended with other components in a dry detergent compsn. without segregating on further handling. (5pp)

WATE- * D15 71634 D/39 ★ US 4288-39
Gas diffuser e.g. for sewage aeration - has sintered or bonded particle body with reduced permeability peripheral zone

WATER POLLUTION CON 15.04.80-US-140505 (19.10.78-US-952862)

(08.09.81) C02c-01/12

15.04.80 as 140505 C.I.p 4261932 (1358KB)

A diffuser, has a peripheral zone of lesser permeability, greater density or lower height, and a boundary zone inwardly of this with progressive increase in apparent volumetric compression ratio towards the periphery. The diffuser is of formed solid particles shaped, pressed and boned or sintered.

The diffuser has a horizontal part with specific permeability of 6-200 SCFM per ft.2 discharge surface under 2 inches water gauge driving pressure. The max. horizontal dimension is at least 4 times the thickness. The upper surface has a bubble release pressure in water of 2-20 in water gauge. (17pp)

PURD D15 17403 D/10 = US 4288-430
Disinfectant for water-conditioning systems - comprising chlorinated cyanurate and sodium chloride

PURDUE RESEARCH FOUNDATI (WATE) 06.08.79-US-064346

E12 (D22) (08.09.81) *WP8100-340 A01n-43/64 A01n-59/08

06.08.79 as 064346 (924PW)

NaCl brine solns. held in a storage tank in fluid connection with an ion exchange column contg. ion exchange resins for water softening, are disinfected by adding to water in the storage tank a pelletised mixt. of NaCl and a chlorinated cyanurate, and dissolving the mixt. to provide both the cyanurate to avoid bacterial contamination of the brine and NaCl to form the brine soln. for regeneration of the ion exchange resin.

The cyanurate is selected from K and Na dichloroisocyanurate. Pref. the pelletised mixt. contains a wt. ratio of cyanurate to NaCl of 65x10 power (-3-). The compsn. releases free chlorine to disinfect the brine solns. used in regenerating domestic water conditioning ion exchange columns. (4pp)

RITP * D15 71680 D/39 ★ US 4288-545
Microbiological removal of fats and greases from waste-waters - by culture or pseudomonas aeruginosa SGRR2 and bacillus spp. or pseudomonas spp.

SYBRON CORP 17.01.79-US-004241

(D16) (08.09.81) G12p-39

17.01.79 as 004241 (428BZ)

Oleaginous materials (I) (esp. of animal origin) are removed from waste water as follows: the water is treated aerobically with (a) Pseudomonas aeruginosa SGRR2 (ATCC 31480); together with (b) at least one of (i) a Bacillus sp., and (ii) a Pseudomonas sp. other than P. aeruginosa SGRR2.

The microorganisms act synergistically to effectively remove a variety of greases and fats from waste-waters allowing them to be discharged without causing pollution. In addn., the microbial combination is resistant to the effect of heavy metals, solvents, pesticides, etc. (9pp)

JADE- * D15 71756 D/39 ★ ZA 8003-593
Automatic chemical dispensing appts. for swimming pools - with chlorine-contg. material dispenser attached to suction line of filtration system, and clocks controlling valves

JADE LEE ELEC PTY 17.06.80-ZA-003593 (02.08.79-ZA-003892)

X25 Q39 (06.05.81) B67d C02b

17.06.80 as 003593 (295PW)

Chlorine is stored in a tank and dispensed via a conduit under the control of a solenoid valve connected to a timer. The timer causes the valve to open for a preset period at predetermined times, typically once daily.

Pref. the chlorine is delivered into the suction line of a pump and filter associated with a swimming pool. Pref. the appts. includes second tank which contains acid which is dispensed under the control of a second timer. Typically acid is dispensed into the same suction line twice per week.

The appts. dispenses acid and chlorine into a swimming pool. (15pp)

INDF * D15 71760 D/39 ★ ZA 8003-750
Ultrafiltration membrane - comprising a sulphonated polymer and opt. a polysulphone and/or polyphenylene oxide

INDIA COUNC OF SCI IND 24.06.80-ZA-003750 (26.03.79-ZA-001423)

A88 J01 P13 (11.05.81) A01j B01d C02b

24.06.80 as 003750 (1248PW)

Ultrafiltration membrane comprises either (a) a mixt. of a polysulphone and/or polyphenylene oxide with a sulphonated polymer or (b) a sulphonated polymer having a degree of sulphonation below 0.08 meq./g.

The membranes have zero to modest salt rejection, and a

materials; low salt rejection (5-20%) can easily be realised. The membranes have water fluxes, at 2 bars of applied pressure, of 5-2.5 cubic metres/seq.metre daily. The membranes are suitable for use in ultrafiltration, for removing suspended solids, sp. colloidal material, from liquids, in the purification of waste waters, in the food industry (for concn. of protein from whey and skim milk, for sepn. of protein from potatoe starch effluent, for concn. of soyabean extract, for recovery of citrus sugar from pulp wash liquors etc.), in the pharmaceutical industry (for sepn. of blood prods., proteins, enzymes etc., for concn. of hormones, antibiotics and polysaccharides etc.) and in industry for effluent purification etc. With filtration of water contg. organic material, sp. sewage, the membrane has modest antifouling properties so that the usual need for chemical and mechanical cleaning is reduced. (22pp)

MCME/ ★ D15 D/39 ★ZA 8004-884
Appts. for removing solids e.g. rocks from water - comprises inclined chute in box-hole outlet with gate controlling rocks next to drainage grid at chute bottom

MACMENIGALL WH 11.08.80-ZA-004884 (10.05.79-ZA-002264)

J01 P41 (18.06.81) B01d B03b

11.08.80 as 004884 (BZ)

A box-like arrangement has an inclined chute at the box-hole outlet, means for guiding water flowing through and over rock in the box-hole towards the chute, a gate for controlling the flow of rock from the box-like and a drainage grid in the bottom of the chute adjacent the gate for allowing water to drain from the chute. (12pp)

See Also

D16 US 4288241

D16: FERMENTATION INDUSTRY

KYOK- ★ D16 69863 D/39 ★BE -888-763
Antiallergic compsns. inhibiting immunoglobulin E prodn. - repd. from Streptococcal lactobacteria

KYOKUTO FATTY-ACID 19.03.81-JP-038790 (12.05.80-JP-061755)

B04 (28.08.81) A61k C12n

12.05.81 as 888763 (367WB)

Antiallergic compsns. contain an active ingredient comprising or derived from lactobacteria of the genus Streptococcus, esp. S. lactis BK-042 (ATCC 31861), S. lactis BK-045 (ATCC 31862), S. lactis BK-051 (IFO 12007), S. bovis BK-052 (ATCC 15351) or S. faecalis BK-026 (ATCC 10100). The active ingredient can be the freeze-dried cells or a protein fraction contained in the supernatant obtained by milling the cells in water.

The compsns. inhibit IgE prodn. and can be used to treat disorders associated with overprodn. of IgE, e.g. asthma, allergic rhinitis, atopic dermatitis, allergies to food, drugs, etc. The compsns. are nontoxic, non-pathogenic, free of side-effects, and can be administered orally. They are effective at daily doses of 1-50 mg/kg. (41pp)

MORE/ ★ D16 D/39 ★BR 8001-192
Alcohol distillation - using reverse osmosis to reduce energy consumption

MORETTI RH 29.02.80-BR-001192

(01.09.81) A23k-01/06 C12f-03/10

OWC ★ D16 69889 D/39 ★CA 1106-302
Glucose isomerase prodn. - by cultivation of ampullariella genus microorganism in nutrient medium

DOW CHEMICAL CO 09.03.78-US-884925

(D17) (04.08.81) C12n-09/92

12.07.79 as 321523 (1248PW)

Prod. of glucose isomerase (GI) is effected by cultivating a micro-organism of the genus Ampullariella in a culture medium, and then recovering the GI.

The GI is useful for, and has a good capacity for, isomerising D-glucose to D-fructose in an aq. medium, e.g. corn syrup, in a batch or continuous process. The GI is suitable for immobilisation in the usual way before use, and the GI has good heat stability for the reaction conditions used in immobilisation and use. The partial isomerising of D-glucose is used to improve the sweetness of glucose syrups etc. for use in food processing industries. (23pp)

NGE- ★ D16 69913 D/39 ★DD -149-159
Influenza virus sub-unit vaccine prodn. - by enzymatic sepn. of haemagglutinin and neuraminidase from virus cores

INST ANGEWANDTE VIR 18.02.80-DD-219115

B04 (01.07.81) A61k-39/14

18.02.80 as 219115 (280AS)

A new process for the prodn. of an influenza virus subunit vaccine, the protectively immunogenically active structural proteins haemagglutinin and neuraminidase are selectively freed from the whole virus with a suitable enzyme, separated from the non-protectively immunologically active viral substance (cores), enriched, and converted into a vaccine with addition of a suitable adjuvant.

The vaccine is suitable for use even in children and in other

persons at risk. Its haemagglutination activity remains excellent even after prolonged storage. (7pp)

GETR- ★ D16 69932 D/39 ★DD -149-206
Elimination pollution caused by carbon dioxide contg. air - from breweries and distilleries, by passing into neutralisation tanks for alkaline effluent

VEB GETRANKEKOMBLE 26.02.80-DD-219255

(01.07.81) C02f-01/66

26.02.80 as 219255 (39PW)

The pollution, caused by the CO₂-containing waste air from fermentation reactors in breweries and distilleries, can be eliminated by collecting it and passing it into neutralization tanks for the alkaline effluents which accrue in the same establishment. This produces the desired reaction with the effluents before they can be discharged into the drainage system.

The result is the double benefit of preventing atmospheric pollution and of saving CO₂ for the effluent neutralization. (4pp)

SOPH- ★ D16 69967 D/39 ★DE 3003-143
Charging rectangular malting kiln - by longitudinally movable overhead spreader spanning width fed via two articulated worm conveyors

SOPFUS FUGLSANG EXP 29.01.80-DE-003143

Q35 (17.09.81) B65g-65/32

29.01.80 as 003143 (1190DH)

The mechanism is for spreading grain in a rectangular malting kiln by means of an overhead spreader conveyor which spans the width of the kiln and is movable in longitudinal direction. The conveyor receives the grain via two conveyors arranged above it, of which the first is charged via a vertical tube and is rotatable in a horizontal plane.

The exit end of this conveyor is swivellably connected to the entry of the second whose outlet end is in turn swivellably connected to the entry of the spreader. This arrangement permits continuous charging of a kiln with length to width ratio of 4 to 1. (9pp)

PETE- ★ D16 70020 D/39 ★DE 3008-933
Mixing and stirring device - in vertical tank is annular spiral scoop on vertical shaft

FA PETER E 08.03.80-DE-008933

J02 (17.09.81) B01f-07/24 B01f-15/06 C12c-07/10

08.03.80 as 008933 (39NS)

A mixing and stirring device for a cylindrical tank, containing mash, wine, juice, syrup or concentrates, is fitted with a vertical shaft with an annular spiral-shaped scoop on radial carrier arms.

The scoop runs at a small distance from the inside wall and produces a descending flow along the scoop blades and an ascending flow inside them. The blades can also be hollow and joined to the hollow shaft for the circulation of a heating or cooling medium.

This device achieves a homogeneous stirring and mixing action independent of the filling level even at slow speeds. (25pp)

KRUG/ ★ D16 70045 D/39 ★DE 3009-493
Colouring malt extract mfr. - by vacuum treatment in stages to remove aroma ingredients and by thickening the extract
KRUGER E 12.03.80-DE-009493
(17.09.81) C12c-01/18
 12.03.80 as 009493 (39RS)
 De-aromatised colouring malt extract is produced by mixing 1 part of bruised malt with up to 15 parts of water, separating the aq. phase and thickening it. The aq. phase is treated in a vacuum of up to 0.01 bar to remove the aroma ingredients and the colouring malt extract is concentrated to a solids content of up to 85wt. %.

This colouring malt extract has no trace of any burnt taste. It is therefore just as suitable for colouring special beers with no touch of malt aroma. (9pp)

IOWA D16 46771 C/27 =EP G012-718
Intra-respiratory vaccine - comprises viable cells of Bordetella bronchiseptica ATCC 31437 in aq. suspension
IOWA STATE UNIV RES INC 07.12.78-US-967478 (07.12.78-US-967477)
B04 C03 (16.09.81) *EP--12-718 A61k-39/10 C12n-01/20
 30.11.79 as 810169 (974BZ) (E) US4016253 2.Jnl.Ref E(AT BE CH DE FR GB IT NL SE)

A novel intra-respiratory vaccine for animals subject to Bordetella bronchiseptica infection is an aq. suspension of viable cells of the modified B. bronchiseptica strain ATCC 31437 or a strain derived from it and having the same characteristics for intra-respiratory vaccine use. The aq. suspension contains at least 2000 viable cells per ml.

Pref. it contains at least 100000 viable cells per ml and also contains residual culture nutrients. Vaccine is used against atrophic rhinitis and pneumonia in swine. (13pp)

PRIN- D16 25381 D/14 =EP --35-521
Determn. of substrate by enzymatic conversion - using cyclic reaction sequence accompanied by indicator reaction

PRINCE CHARLES HOSP 14.09.79-AU-000493
B04 (16.09.81) *WP8100-725 C12q-01
 11.09.80 as 901703 Based on WP8100725 (367AT) (E) WP8000453 CH-576640 GB1199565 GB1334467 GB1446298 US4042462 US4038146 US4019961 US4006061 US3627645 2.Jnl.Ref E(DE FR GB NL SE)
 Determn. of a substrate (I) in a sample is carried out by (a) converting the substrate to a product in a 1st reaction stage and converting the prod. back to the substrate in a 2nd reaction stage, where at least one stage is enzyme-catalysed and one of the reactions is accompanied by the conversion of an indicator substrate to an indicator product; and (b) determining the loss of indicator substrate or the gain of indicator prod.

The process is esp. applicable to enzyme immunoassays, where (I) is a product formed by the enzymatic action of the free or bound enzyme-ligand or enzyme-antibody conjugate on a suitable substrate. It is stated to increase the sensitivity of the immunoassay (e.g. for serum digoxin) by a factor of 50-100. (23pp)

MASI D16 25382 D/14 =EP --35-549
Bio-assay for determn. of mutagenic effect - based on radial diffusion of mutagen

MASSACHUSETTS INST TECH 17.09.79-US-076199
(16.09.81) *WP8100-726 C12q-01/68
 25.08.80 as 901832 Based on WP8100726 (367WB) (E) US3819490 US4066510 US3493772 GB-774155 3.Jnl.Ref E(CH DE FR GB LI)
 The mutagenicity of a test agent is determined out by (a) treating a culture of living cells with the test agent under conditions such that a band of living mutant cells will form if the agent is a mutagen, (b) measuring a radius within the band, and (c) using the radius to determine the mutagenic effect of the agent.

In the case of chemical mutagens, the method can be used to determine both the minimal mutagenic concn. (MMC) and the half-life of the mutagen. (51pp)

REGC ★ D16 70169 D/39 ★EP --35-781
Mfg. transfer vector contg. sequence for mammalian peptide - with opiate agonist or antagonist activity, and transformed microorganisms

UNIV OF CALIFORNIA 10.03.80-US-128711
B04 (16.09.81) C07c-103/52 C12n-01/20 C12n-15 C12p-21/02
 07.03.81 as 101678 (1251NS) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

A new DNA transfer vector (A) includes an expressible operon, esp. the lac operon, in which is inserted a deoxynucleotide sequence of naturally occurring mammalian codons coding for a peptide with opiate agonist or antagonist activity. Orientation of the inserted sequence is such that the peptide can be synthesised. Esp. the peptide is beta-endorphin (I) from the mouse or humans, and the sequence may also comprise a synthetic

Gly-human-beta-endorphinyl glycine or 31-Gly-human-(I) amide. Also new are (a) the plasmid p beta gal-end (ATCC 40024); (b) microorganisms transformed with A, specifically E. coli RR1 ATCC 31614; and (c) synthesis of (I) by cultivating these transformed microorganisms.

(I) is known as an analgesic; for treating mental disorders (including schizophrenia) or gastrointestinal diseases, and possibly as a long-term birth-control agent. (36pp)

ICIL ★ D16 70190 D/39 ★EP --35-831
Glutamate dehydrogenase gene contg. microorganism - used to produce protein from methanol and ammonia, microorganism has been genetically modified

IMPERIAL CHEM INDS LTD 07.03.80-GB-007849
C03 (D13) (16.09.81) A23k-01 C12n-01/32 C12n-15
 10.02.81 as 300538 (1251KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Genetically modified microorganisms are made by transferring DNA contg. at least one gene from a donor microorganism, carried on a plasmid vector formed from a multicopy plasmid, into a recipient microorganism deficient in this gene. Specifically the gene transferred codes for glutamate dehydrogenase (GDH) and the modified microorganism expresses this enzyme.

Opt. the gene is transferred via at least one other intermediate microorganism, and the pref. recipient is methylotrophus methylotrophus NC1B 15015. The gene donor is esp. E. coli. Also claimed are (a) the modified microorganisms themselves, specifically M. methylotrophus NC1B 11585 and intermediates plasmids formed during their prepn. and (b) single cell proteins and amino acids made by growing these cells on a medium contg. methanol plus ammonia or ammonium.

The GDH gene improves conversion of substrate carbon to cellular carbon since it allows the microorganism to assimilate ammonia by the more e-ficient GDH pathway. The single-cell protein prod. is useful in human and animal nutrition. (20pp)

FUKO ★ D16 70208 D/39 ★EP --35-883
Enzymatic transesterification of tri:glyceride mixt - esp. for cocoa butter substitute prodn., using cell bound or supported enzyme

FUJIOIL KK 08.03.80-JP-029708 (08.03.80-JP-029707)
A97 (D13) (16.09.81) C12n-11/08 C12p-07/64
 06.03.81 as 300938 (1251NS) (E) No-Citns. E(CH DE FR GB LI NL)
 Enzymatic transesterification process comprises continuously or repeatedly treating an appropriate enzyme (prepn.) with a fresh supply of dried fatty ester substrate. Esp. a cell-bound, lipid-degrading enzyme is used, or the enzyme is attached into or onto a carrier in an aq. system, then the prod. slowly dried so as to activate or increase the enzyme's transesterification activity, pref. to Ka 5 or more.

The substrate is pref. a glyceride (mixt.), opt. used together with a fatty acid (deriv.) (e.g. a lower alkyl ester), and the total water content of enzyme and substrate is 0.18% or less, on the wt. of substrate. Lipase prepn. with Kr values at least 0.01 are new (Ka is the absolute transesterification activity, and Kr is the value relative to lipolytic activity).

Hydrolysis of substrates to diglycerides, etc. is minimised and enzymes having higher transesterification activity than previously possible are obtd. The method is esp. useful for making cocoa butter substitutes. (41pp)

UPJO ★ D16 70226 D/39 ★EP --35-914
Co:integrate plasmid(s) from E. coli and streptomyces espinosus DNA - and E.coli vectors transformed with them

UPJOHN CO 23.07.80-US-171448 (12.03.80-US-129581)
B04 (16.09.81) C12n-15
 10.03.81 as 301009 (+5.5.80-US-146320) (1251RP) (E) No-Citns. E(BE CH DE FR GB IT LI NL SE)
 The plasmid vectors E.coli CSH50 (pUC 1012; pUC 1013; pUC 1015; pUC 1016) and E.coli RR1 (pUC 1022; pUC 1023), with NRRL deposit numbers B-12106, -12107, -12150, -12151, -12183 and -12184, respectively, are new. Also new are the plasmids pUC 1012; pUC 1013; pUC 1015; pUC 1016; pUC 1022 and pUC 1023; they are characterised by restriction maps reproduced in the specification.

pUC 1012 and 1013 are prepd. by linearising the plasmids pU6 and pBR322 and ligating the resulting linear DNA. They can be converted to the other new plasmids by digestion with a restriction endonuclease, then ligating linear DNA fragments formed.

The plasmids can be modified by incorporation of a length of DNA, e.g. genes coding for somatostatin, rat proinsulin, interferon or proteases, and then transformed into a host (esp. bacterial) which will then produce the cpd. coded. They can be used in industrially-important microorganisms, e.g. Streptomyces, e.g. to increase prodn. of antibiotics from these

LUX-★ D16 70231 D/39 ★EP--35-932
 Field of permanent magnet applicator adjusts yin and yang - to treat human ailments and modify bacteriological activity
FLUX YANG SOC CIV 03.03.80-FR-004669
S05 P34 (16.09.81) A61n-01/42 C12n-13
 2.03.81 as 400319 (448AS) (F) WP8100357 E(AT BE CH DE GB IT I LU NL SE)
 Device for applying a magnetic field to an object to be treated comprises a permanent magnet built into a holder which serves as a diffuser for the magnetic force. The holder has two opposed areas of which one is entirely of N. polarity, representing 'yang' energy, and the other entirely of S. polarity representing 'yin' energy.
 The device can be used in the form of a bracelet, collar, belt, shoe sole or unipolar acupuncture needle for medical treatment and restoration of the balance of 'yin' and 'yang' in the human body.
 Other applications include modifying bacteriological activity, e.g. disinfecting wounds, asepsis of meat and milk prods. (12pp)

NIV-★ D16 70234 D/39 ★EP--35-937
 Hasenula yeasts esp. *H. anomala* used as medicaments - having non-specific immunostimulant activity and to potentiate antibiotics and vaccines
UNIVABLOT 10.03.80-FR-005302
B04 (16.09.81) A61k-31/71 A61k-35/72
 1.03.81 as 400332 (395AT) (F) FR2059510 FR2290218 FR2374042
 Jnl. Ref E(CH DE GB IT LI)
 Medicaments contg. *Hasenula*, esp. *Hasenula anomala*, or extracts of *Hasenula* are new.
Hasenula are yeasts of the *Saccharomycetaceae* family, subfamily *Saccharomycoideae*. *Hasenula anomala*, e.g. CBS 112, is a tartic. pref. The yeasts may be cultivated by known methods in the usual media and the obtd. cells dried under vacuum at 50 deg. or pref. lyophilised.
 The medicaments have non-specific immunostimulant activity, potentiate the activity of antibiotics and increase the activity of vaccines. They are used to reinforce resistance to infections and increase immunity and are esp. useful in treatment of ear, nose, throat and pulmonary infections of viral or bacterial origin. The cpds. have low toxicity (tests using glucan extracts showed no oral toxicity and an i.p. LD50 of above 100 mg/Kg in mice) and may be admin. orally (e.g. 100-2000 mg/day of dried or lyophilised whole cells), parenterally or in the form of an aerosol (usually as glucan extracts). Other active cpds. e.g. antigens or antibiotics may be admin. in conjunction with the *Hasenula* medicaments. (17pp)

COLL/★ D16 70286 D/39 ★FR 2476-123
 Skirt around access port in top of wine storage vessel - to prevent air contact damage to wine as it contracts
COLLOMP P 15.02.80-FR-003538
(21.08.81) C12h-01
 15.02.80 as 003538 (448DH)
 Inside the vessel, an annular skirt surrounds the port-hole and extends downwards to dip into the wine. Pref. the skirt is integral with the collar surrounding the porthole and fitted into the top of the vessel. The top of the vessel is pref. fitted with a vent valve.
 Used to protect the wine against the effects of contraction due to drop in temp. and/or loss of carbon dioxide from soln. As the level of the wine falls due to contraction, the lower edge of the skirt remains immersed in liq. In this way, only the area of wine inside the skirt can make direct contact with air which leaks in through the port-hole. The possibility of contamination is greatly reduced. (3pp)

CURS ★ D16 70287 D/39 ★FR 2476-125
 Support for immobilising antigens, enzymes etc. - is an inert core material coated with a (meth acrylate copolymer
KURARAY KK 19.02.80-JP-019906
A96 B04 X16 (A14) (21.08.81) A61k-47 B01d-15/08 C12n-11 C12q-01 H01m-08/16
 19.02.81 as 003306 (520KB)
 A support for the immobilisation of biologically active materials comprises a base substance coated with a copolymer of (a) a hydrophilic acrylic or methacrylic monomer of formula $\text{CH}_2:\text{C}(\text{R}_1)\text{COOR}_2\text{OR}_3$ (I), (where R_1 is H or CH_3 ; R_2 is 2-3C alkylene which may be substd. or a polyoxyalkylene gp.; R_3 is H, 1-3C alkyl opt. substd. by a polar gp.), and (b) a copolymerisable unsatd. acid of formula $\text{CH}_2:\text{C}(\text{R}_1)\text{COOH}$ (II), or (c) a copolymerisable amine $\text{CH}_2:\text{C}(\text{R}_1)\text{COOR}_4\text{NHR}_5$ (III), (where R_4 is 2-3C alkylene; R_5 is H or 1-3C alkyl), (b) or (c) representing 1-10% of the total polymerisable monomers present.
 Used as selective adsorbents for clinical use, affinity chromatography, and analytical columns, and for the preparation of affinity electrodes. Greater selectivity than is possible with prior art supports is achieved. (22pp)

GLAX D16 73900 A/41 = GB 1598-457
 Water soluble immunostimulating peptidoglycan material prepn. - by solubilisation of cell wall material of *Streptomyces griseus* and sepg. nucleic acid material
GLAXO LABS LTD 22.03.77-GB-012090
B04 (23.09.81) *NL7803-034 A61k-35/74 A61k-37/02 C07g-07
 21.03.78 as ----- (936MR)
 Prod'n. of water-soluble fraction (I) contg. peptidoglycan material having immunostimulatory activity is described. Process comprises treating the mycelium of a peptidoglycan-contg. strain of *Streptomyces griseus* in an aq. medium (II) to solubilise bound peptidoglycan components of the cell walls in (II) to yield a peptidoglycan fraction (III) contg. the desired immunostimulatory activity.
 Process includes the sepn. of nucleic acid material from (III). (I) is defined as being a fraction which does not sediment from an aq. medium when centrifuged at 23000 g for 1 hr.
 (I) has immunostimulatory properties. (7pp)

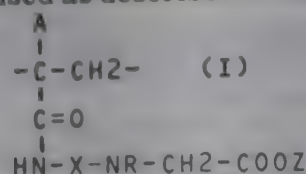
WILL/ D16 87086 A/38 = GB 1598-488
 Aerating tunnel supports for compost heap of decomposing waste - comprising trestles standing on pallets with perforated tops
WILLISCH H 18.03.77-DE-711907 (18.03.77-DE-711863)
(23.09.81) *BE-865-025 C05f-09/04
 14.03.78 as 010008 Add to 1561902 (006AS)
 Appts. for treating waste materials, refuse and sewage sludge mixtures etc. by composting has upstanding perforated funnel-shape formers upon which a stack of compostible material is built, the formers being at least half the stack height and supported on pallet frames with sieve-like covers.
 The formers are disengageable from the frames for lengthwise removal when the stack becomes stable, pref. by collapsing the formers which comprise telescopic sections. (14pp)

HALH ★ D16 70320 D/39 ★GB 1598-873
 Malting appts. suitable for tropical use - with air for kiln cooled prior to heating to reduce its humidity (BR 2.1.79)
HALL-THERMOTANK LTD 09.05.77-GB-019399
(23.09.81) C12c-01/14
 08.05.78 as 019399 (295DH)
 A malting appts. includes a grain germinator and a kiln where the germination can be terminated. Cool air is fed to the germinator and heated air to the kiln. Prior to passing the air to the heater it is passed through a cooler.
 Pref. the cooler also cools the air fed to the germinator. Pref. the cooler is coupled to a refrigeration plant, and the heater comprises the condenser equipment of the refrigeration plant.
 The appts. produces a light-coloured malt and is suitable for use in tropical climates where the ambient air is normally too humid to serve as a suitable supply for the kiln. (4pp)

DIAP D16 80496 A/45 = GB 1598-686
 Metal contg. chelating resin - useful as plant nutrients and as enzyme carriers esp. for amyloglucosidase
DIA PROSIM FA (DIAS) 29.04.77-GB-017984
A97 C03 E13 (D17) (23.09.81) *DE2818-920 C12n-11/06 + C12n-09/90
 28.04.78 as ----- (982AS)
 An enzymatically active enzyme-support complex comprises a resin having pendant chelating gps., an enzyme and a metal. The metal is chelated by both the chelating gps. and the enzyme through coordinate bonds such that there is no localised charge on the metal.
 Pref. the metal as ferrous or ferric iron and the chelating gps. are methylene amino acetic acid and/or methylenediamino acetic acid gps. The resin is crosslinked polystyrene or poly(meth)acrylamide and the enzyme is amyloglucosidase. The complex is used to convert dextrin to glucose by contacting dextrin with the complex. (4pp)

DIAP D16 80497 A/45 = GB 1598-687
 Chelating crosslinked acrylate resins - with amino-acetate or imino-di:acetate gps.; useful as plant growth media and supports for enzymes e.g. amyloglucosidase
DIA PROSIM FA (DIAS) 29.04.77-GB-018106
A97 C03 (A14 D17) (23.09.81) *DE2818-921 C08f-08/30
 28.04.78 as ----- (982AS)
 Prepn., in the form of beads, of a chelating resin having monomeric units of formula (I) comprises (a) reacting a (meth)acrylate ester or (meth)acrylonitrile with a crosslinking agent; (b) reacting the prod. with a polyamine of formula $\text{H}_2\text{N}.\text{X}_1.\text{NHR}_1$; and (c) reacting the prod. with an alkali metal chloroacetate.
 In the formulae, A is H or CH_3 ; R is H, 1-6C alkyl or $\text{CH}_2.\text{COOZ}$; X is 1-12C alkylene opt. interrupted with O atoms or NH or $\text{NCH}_2.\text{COOZ}$ gps.; Z is H, alkali metal or NH_4 ; X_1 is 1-12C alkylene opt. interrupted by O atoms or NH gps. and R_1 is 1-6C

alkyl. The resin is used as described in GB1598686. (6pp)



DIAP **D16** **80496 A/45 = GB 1598-688**
Metal contg. chelating resin - useful as plant nutrients and as enzyme carriers esp. for amyloglucosidase

DIA PROSIM FA (DIAS) 29.04.77-GB-017984 (00.00.80-GB-010994)

A97 C03 E13 (D17) (23.09.81) *DE2818-920 C05d-09/02

28.04.78 as ----- Div.ex.1598686 (974PW)

Novel solid agricultural compsns. comprise a complex of an agriculturally acceptable trace metal chelated by a water insoluble crosslinked chelating resin, and an agriculturally acceptable finely divided solid carrier.

Pref. the metal is Fe. Pref. the resin has pendant methylene (di) aminoacetic acid chelating gps. Pref. the resin is a crosslinked polystyrene, polyacrylamide or polymethylacrylamide. Pref. the resin is a macroporous or macroreticular resin in bead/arm. It is pref. applied to the locus of growing plants. (4pp)

HOFF **D16** **51949 A/29 = GB 1598-811**
Antigen specific for breast cancer and derived antiserum - extracted from cancer tissue, used for early breast cancer diagnosis e.g. by radioimmunoassay

HOFFMANN-LA ROCHE AG 12.01.77-GB-001140

B04 K08 S03 (S05) (23.09.81) *DE2801-257 + C07g-07

20.12.77 as ----- (936NS)

New breast cancer associated antigens (I) are extracted from human breast carcinomas (II) by (a) extracting homogenised (II) material with a glycoprotein solvent; (b) centrifuging; (c) dialysing the resultant supernate; (d) lyophilising; (e) gel-filtering; and (f) isolating the fractions contg. (I).

Pref. the glycoprotein solvent is KCl, perchloric acid or aq. ammonium sulphate. (I)-antiserum is used specifically opt. in radiolabelled form, in a diagnostic kit for detection of (I) in a sample of blood, serum or plasma. (5pp)

ZAID ★ **D16** **70402 D/39 ★ GB 2071-661**
Ebelactone A and B obtd. from Streptomyces species - useful in immunological treatment of tumours and as antiinflammatory agents

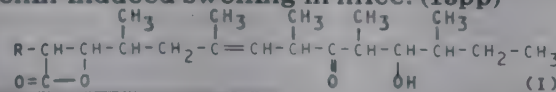
ZHBISEIBUTSU KAGAKU KEN 14.03.80-JP-031514

B03 C02 (23.09.81) A61k-31/36 C07d-305/12

11.03.81 as 007651 (476KB)

Ebelactone A and ebelactone B are new cpds. of formula (I). In A, R is methyl; and in B, R is ethyl.

(I) exhibit activity to enhance the cell mediated immune response in living animals and they also inhibit inflammations in living animals. Thus they may be used in the immunological treatment of tumours and for enhancing anti-tumour agents such as bleomycins. (I) have anti-esterase activity and anti-formylmethionine aminopeptidase activity. Admin. to mice of (I) at a dosage of 0.781-50 mg/kg (i.p.) or 0.5 mg/kg (per os) enhances the development of DTH response and (I) shows a potentiating effect on cell-mediated immunity. Ebelactone B reduces carrageenin-induced swelling in mice. (13pp)



BRIG-★ **D16** **70421 D/39 ★ GB 2071-693**
Apparatus for discharging granular material - with low profile blade sweeping closely over strainer base

BRIGGS S & CO LTD 10.06.80-GB-018965 (02.07.79-GB-022928)

(23.09.81) C12c-07/10

10.06.80 as 018965 (50PW)

Appts. for treatment of a granular or other divided material with a liq. comprises a vessel with a strainer plate sepg. a treatment space from a liq. drainage space with a discharge outlet for the material, and a paddle mounted for rotation on a shaft. The paddle blades have a low profile as viewed in the direction of rotation and in rotation sweep closely over the strainer plate.

Used partic. in a mash tun used in brewing beets. Previously rotary paddle worked always on the surface layer of the grain and paddles were lowered during operation, producing complication in the drive and possible contamination of the wort. New arrangement provides efficient discharge of spent grain. (4pp)

KAYA ★ **D16** **70565 D/39 ★ J5 6099-4**

Immuno:potentiator compsn. for treatment of cancer - contain anti-neo:carcinostatin

KAYAKU ANTIBIOTIC RES 11.01.80-JP-001841

B04 (10.08.81) A61k-35/74

11.01.80 as 001841 (33WB)

Immunopotentiator compsn. comprises anti-neocarzinostatin (I) as effective ingredient. The compsn. is useful as an immunopotentiator for immunotherapeutic treatment of cancers. It can be administered orally or parenterally in the form of powders, granules, tablets, capsules or injections. The dose is 50-2500 mg once to four times a day. The LD50 value is above 50 mg/kg (i.p., i.v., p.o.).

Anti-neocarzinostatin is a known cpd. and can be obtained by cultivation of Streptomyces carzinostaticus var. F-41 Kuroy (FERM-P2257, ATCC 15945). (3pp)

KITA ★ **D16** **70566 D/39 ★ J5 6099-4**

Immunisation of bred fish - by admin. of vaccine against disease caused by vibrio, obtd. by inactivating liq. culture broth of three antigens of vibrio anguillarum

KITASATO RES INST 00.00.80-JP-125585 (25.07.77-JP-089070)

B04 C03 P14 (10.08.81) A01k-61 A61k-39/10

25.07.77 as 125585 /80 Div.ex.89070/77 (33RH)

Immunisation of bred fish against disease caused by Vibrio which comprises (1) inactivating a liq. culture broth of three types antigens of Vibrio anguillarum by treatment with formalin or by heating and (2) dipping fish, which have been treated in a bath of sucrose soln. in the resultant vaccine for Vibrio disease. Vaccine is useful in treatment or prophylaxis of disease caused by Vibrio in bred fish.

In its prepn, three types of Vibrio anguillum, i.e. PT-24 (serum type A), PT-223 (serum type B), PT-514 (serum type C), are inoculated into a liquid medium (pH 7.0-7.6) comprising brain heart infusion broth, heart infusion broth, dry bouillon, whale heart extract, fish meat extract or NaCl, and cultivated at 20-28 deg.C for 16-24 hrs. After addition of glucose to a concn. of 0.1-2% the cultured broth is adjusted to pH 6.8-7.5 and cultivation is continued for 16-24 hrs. The cultured broth is treated by addn. of formalin to 0.1-2% concn. or under heating, to give vaccine, which is used as 1:10 dilution soln. in the vaccination. (5pp)

ZAID ★ **D16** **70580 D/39 ★ J5 6099-466**

Antibiotic alanyl bactobolin - active against Gram-positive and negative bacteria and various tumour cells including L-1210

ZHBISEIBUTSU KAGAKU KEN 09.01.80-JP-000499

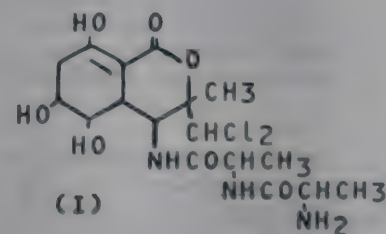
B02 (10.08.81) C07d-311/72 C12p-21/02 C12r-01/38

09.01.80 as 000499 (52WB)

The antibiotic alanyl bactobolin of formula (I) and its acid addn. salts (salts with HCl, HBr, H2SO4, H3PO4, HNO3, AcOH, malic acid, citric acid, ascorbic acid, MsOH) are new.

(I) inhibits the growth of Gram-positive and negative bacteria and of various tumour cells including leukaemia L-1210. MIC (mcg/ml): Staphylococcus aureus smith, 25 (mcg/ml); Micrococcus flavus FDA16, 6.25; Sarcina lutea PCI1001, 6.25; Bacillus subtilis NRRL B-558, 25; Corynebacterium bovis 1810, 12.5; Escherichia coli NIHJ, 50; Shigella dysenteriae JS 11910, 3.13; Proteus vulgaris OX19, 50. Acute toxicity is 3.9-7.8 mg/kg (i.v. in mice).

(I) is produced by culturing an alanyl bactobolin producing strain of Pseudomonas (e.g. Pseudomonas BMG 13-47, FERM-P 5083, isolated from the soil of Saitama Pref.) on a nutrition medium to accumulate (I) in the medium and recovering (I) from the culture broth. (I) is also produced by acylating the amino gp. of bactobelin with L-alanine or its amino protected deriv. or reactive deriv. (11pp)



KAKE ★ **D16** **70588 D/39 ★ J5 6099-495**

Antibiotic ka-3093 prepd. by culturing streptomyces strain - used in antibacterial agent, parasiticides and herbicides

KAKEN CHEM KK 20.12.79-JP-164780

B04 (10.08.81) A61k-35/74 C07g-11 C12p-01/06

20.12.79 as 164780 (140)

Antibiotic KA 3093 (I) having a ... of 100-1000 ...

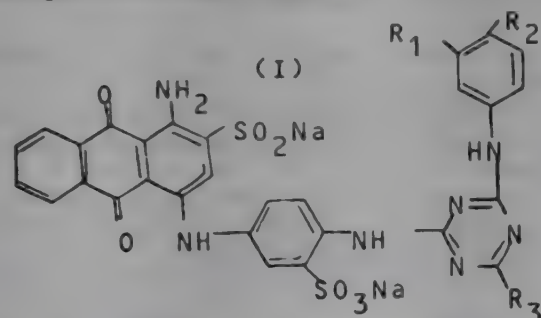
Formula of C₂₃H₃₁O₁₂N. (I) is used as antibacterials, parasiticides or herbicides containing KA-3093 as an active ingredient.

(I) is prepd. by cultivating a strain of genus *Streptomyces* and capable of producing KA-3093 (specifically, *Streptomyces* sp. KA-093, FERM-P No. 5285) and recovering KA-3093 from the culture. (5pp)

MAB/★ D16 70644 D/39 ★J5 6099-792
ATP-producing enzyme prodn. - by culturing *Bacillus thermophilus* to produce acetate-kinase, extracting crude prod., adsorbing on carrier and eluting

IMABORI K 14.01.80-JP-002900
B04 (11.08.81) C12n-09/12 C12r-01/07
14.01.80 as 002900 (5KB)

Method comprises (a) culturing the microorganism which can produce acetate-kinase, (b) obtg. the crude acetate-kinase soln. by extracting intracellular enzyme, (c) treating with the water insol. carrier (I) to adsorb acetate-kinase and (d) eluting. In (I), R₁, R₂ are H or SO₃Na; and R₃ is water insol. high molecule. The water insol. carrier (I) adsorbs acetate-kinase selectively and so acetate-kinase can be refined easily. As the microorganism, *Bacillus thermophilus* is used. (5pp)



AGEN★ D16 70645 D/39 ★J5 6099-793
Pristanol prepn. from pristane contg. culture medium - using *Nocardia* spp. and adding nonionic surfactant to culture medium

AGENCY OF IND SCI TECH 12.01.80-JP-002397
E17 (11.08.81) C12p-07/04
12.01.80 as 002397 (140BZ)

Pristanol is prepd. by cultivation of *Nocardia* spp. (e.g. *Nocardia* sp. BPM 1613, FERM-P No.1609) by oxidising pristane which the medium contains as a main carbon source. The improvement comprises adding a nonionic surfactant to the medium.

Coagulation of a strain is prevented and oxidn. rate does not reduce. No accumulation of pristanoic acid is observed. Accumulation of pristanol is accelerated to attain the max. concn. of pristanol in a short time. Any surfactant which has no physiologically inhibitory activity on the strain may be used, e.g. sorbitan fatty acid esters (e.g. Span 20 RTM), polyoxyethylene sorbitan fatty acid esters (e.g. Tween 40 RTM), polyoxyethylene fatty acid esters (e.g. Emanon 1112, RTM), fatty acid monoglycerides (e.g. Nissan Monogly MB, RTM) and polyoxyethylene alkylphenol mono- or diphosphates. These surfactants are added in an amt. of at least 0.3 g, pref. 0.5-5.0 g, per litre of the culture. (6pp)

MITP★ D16 70646 D/39 ★J5 6099-795
Polysaccharide prodn. - by cultivating pseudomonas microorganisms in medium contg. methanol as main carbon source

MITSUBISHI PETROCH KK(MITP) 06.01.80-JP-000225
(D17) (11.08.81) C12p-19/04
06.01.80 as 000225 (140WB)

Prodn. comprises cultivating *Pseudomonas* sp. CC-163 (FERM-P 5326) or *Pseudomonas* sp. CC-173 (FERM-P 5327) in a medium contg. methanol as main carbon source and recovering the produced polysaccharide from the culture. Cultivation is pref. aerobic and at 28-30 deg.C and pH 6.5-7.5 for 4-5 days by shake culture or 3-4 days by aeration-stirring culture.

The polysaccharide is (1) acidic (2) water soluble; insoluble in methanol, ethanol and acetone, (3) a white cotton-like or fibrous substance in the dry states, and the aq. soln. is colourless and clear, and (4) has viscosity (1 v/w% aq. soln.) of 430 cps (sp. CC-163); 400 cps (sp. CC-173), (5) elementals analysis of 38.7%C, 5.7%H and 0.3%N for sp CC-163 and 38.5%C, 5.8%H and 0.3%N for sp. CC-173 and (6) is constituted by sugar (as hydrolysed with 2N H₂SO₄ at 100 deg.C for 6 hrs.): sp. CC-163: glucose:mannose = 2:1; sp. CC-173: glucose:mannose = 3:1. (6pp)

MARZ★ D16 70648 D/39 ★J5 6099-798
Reagents for determn. of purine nucleoside phosphorylase activity - adenosine deaminase and haemolysed blood, comprises substrate soln., enzyme suspension, reaction stopping soln. and colour reagents

MARUKO SEIYAKU KK 11.01.80-JP-002419
B04 (11.08.81) C12q-01/26 G01n-31/22
11.07.80 as 002419 (140NS)

Reagents for determn. of purine nucleoside phosphoarylase (PNP) activity, adenosine deaminase (ADA) activity or guanase activity in blood, haemolysed blood or culture consisting of (1) a substrate soln., (2) an enzyme suspension, (3) a reaction stopping soln., and (4) a combination of colour reagents (a) and (b). Pref. the substrate soln. comprises inosine, sodium azide and a 0.05-0.2M buffer soln. of pH 7-8; or adenosine, sodium azide and a 0.05-0.2M buffer soln. of pH 7-8; or guanine, sodium azide and a 0.05-0.2M buffer soln. of pH 6-7.5. Pref. (2) is a 1.5-4M ammonium sulphate suspension or 40-60% glycerin soln. of xanthine oxidase (XOD) or XOD and PNP. Pref. (3) is a 0.1-0.3M citric acid soln. or a 0.1-0.2N hydrochloric acid soln. Pref. (4) the combination of colour reagents comprises (a) a colour reagent comprising 3-methyl-2-benzothiazolinone-hydrazone hydrochloride, peroxidase and a 0.1-0.3M buffer soln. of pH 3-4 and (b) a colour reagent comprising N,N-di(m)ethylaniline and a 0.1-0.3M buffer soln. of pH 3-4.

The determn. is simple and accurate. (6pp)

KURS★ D16 70730 D/39 ★J5 6100-605
Hollow thread element - used as filter for soln. contg. solid suspension

KURARAY KK 16.01.80-JP-003819
F07 J01 (D13) (12.08.81) B01d-13
16.01.80 as 003819 (32DJ)

A hollow thread element comprises hollow threads bound together and adhered at their ends. At the end parts the threads are divided into bundles. An end plate pref. provides spaces corresp. to the distance between each bundle. The end plate opt. has a slant surface.

This hollow thread element is useful as a filter for a soln. contg. solid suspensions, e.g. such a fermented liq. as soybean sauce or sake, an (in)organic pigment suspending soln., an oil dispersing soln., emulsion, latex, paint, etc. Owing to the spaces at the end plate, a soln. easily penetrates between the hollow threads and flows along the lengthwise of the thread without cross flowing. The smooth flow of the soln. washes away solid suspensions from the surfaces of the threads, so the solid suspensions do not accumulate in the spaces between the threads. (5pp)

MORG D16 41464 C/23 = J8 1036-888
Lactose decomposition prod. soln. prodn. - using beta-galactosidase in vessel divided by dialysis membranes

MORINAGA MILK KK 24.11.78-JP-145686
(D13) (27.08.81) *WP8001-034 A23c-07/04
24.11.78 as 145686 (1412AS)

In the prodn. of a lactose decomposition prod. soln. a container is divided into compartments by one or more dialysis membranes. A first solution of edible material containing 4-20 wt.% lactose and a second solution containing crude or refined beta-galactosidase in the proportion 30-250, pref. 62.5-250 units for each 1 g of lactose in the first soln. are put in adjacent compartments. Lactose in the first soln. enters the second soln., where it is decomposed. Lactose decomposition soln. recrosses the dialysis membrane(s) to enter the first solution.

The enzymic reaction is pref. conducted at 0-10 deg.C, and dialysis membrane form is such as to afford as great an area of contact as possible between the first and second solutions. Decomposition giving a good quality prod. is effected without special methods, e.g. pressurisation, etc., being necessary. (J55071445) (10pp)

HAYB D16 28846 V/15 = J8 1036-915
Intracellular enzymes extn. from microorganisms - using urea soln. without inactivation of prods.

KEN HAYASHIBARA 02.09.70-JP-076857
(27.08.81) *US3801-461 + C12n-09/10
02.09.70 as 076857 (22DJ)

In extn. of transglucosidase from cell body of fungi belonging to the genus *Mucor*, use is made of aq. urea soln. of 1-6 mole concn. The fungi usable include *Mucor Javanicus* IFO 4570. The fungi are cultivated in a culture medium after conventional manner, and the cell body is collected by centrifugation, filtration, etc., followed by washing with water. Thus collected cell body is added to aq. urea soln. of 1-6 mole concn. and the soln. is kept or agitated for 5-100 hrs. at 30-50 deg.C. Then urea is sepd. by dialysis and the cell body is sepd. from the soln. and then fractional pptn, chromatography, etc. is conducted to give pure enzyme. (3pp)

SAOC D16 82180 W/50 = J8 1036-916
Microbial prodn. of ATP decomposg enzyme - using Streptomyces
 SANRAKU OCEAN 01.10.73-JP-109323
 B04 (27.08.81) *J50058-282 + C12n-09/12 C12r-01/46
 01.10.73 as 109323 (BL)

An enzyme decomposing ATP giving inorganic P and nucleotide such as AMP, A4P, A5P, and G5P was produced by a Streptomyces.

In an example, *S. adaphospholyticus* A-4668 was cultured with shaking at 30 deg.C for 30 hr. on a medium (pH 6.8-7.2) contg. glycerol 2, peptone 3, KH₂PO₄ 0.1, and MgSO₄·7H₂O 0.04% plus 2 ppm of Fe²⁺ and Mn²⁺. The enzyme in the culture supernatant was pptd. with (NH₄)₂SO₄ at 0.8 satn. and purified by DEAE-cellulose and SE-Sephadex column chromatogs, eluting with a pH gradient or a concn. gradient of Tris buffer or acetate buffer with yield of ca. 47%. The enzyme was specific to ATP and transferred the P to AMP, ATP, GDP, GTP, and etc. It required 2 valent metal ion for its activity. Its optimum pH and temp. were 9.5-10 and 50-55 deg.C, resp. It was stable at pH 4-11 and below 60 deg.C. Its mol. wt. was 28,000-29,000 estd. by the gel filtration method. (J50058282) (10pp)

MATS/ D16 12604 D/08 = J8 1036-918
Enzymatic determ. of total poly:amine - e.g. in urine sample of gastric cancer patients, using amine (per)oxidase and (fluorescence) colour former

MATSUMOTO T 31.05.79-JP-069229
 B04 J04 (27.08.81) *J55160-852 + C12q-01/28
 31.05.79 as 069229 (69NS)

Method comprises mixing amts. of sample, buffer soln., colour former comprising 4-aminoantipyrine and phenol etc., (or alternatively, fluorescene colour former) enzyme liquor contg. amine oxidase and peroxidase extracted from germinated soybean, and determining colour of substance (or its fluorescence). (J55160852) (10pp)

IATR D16 20386 D/12 = J8 1036-920
Serum levels of uric acid determination - using uricase-peroxidase-hydrogen donor system with acetic acid prior removal by treating with copper or iron ions

IATRON LABORATORIES 29.06.79-JP-081301
 B02 J04 (27.08.81) *J56008-699 C12q-01/62
 29.06.79 as 081301 (5NS)

Determination of uric acid in serum using the reaction system of uricase-peroxidase-hydrogen donator is characterised by the prior removal of ascorbic acid from serum by treating it with Cu(++) and Fe(++) ion.

Uric acid determ. is used for diagnosing podagra, etc. Reducing substances present in serum e.g. ascorbic acid, etc. compete with hydrogen donator and cause determ. error. In an example, the test sample was added to the buffer soln. of pH 3-5 contg. Cu(++) ion 0.2-0.5 mmol/l and Fe(++) ion 0.02-0.06 mmol/l and the ascorbic acid in the sample was oxidised to dihydroacetic acid with Cu(++) ion. The formed hydrogen peroxide was reduced by Fe(++) ion. The inhibiting effect of Cu(++) ion and Fe(++) ion on enzymes was avoided by use of EDTA.

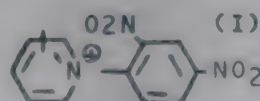
Ascorbic acid is removed and uric acid can be determined more exactly. (J56008699) (5pp)

KURS D16 32862 X/18 = J8 1036-979
Reactive carrier for amino acid, enzymes etc - is silylated and treated with polymer having nitro benzene pyridinium radicals

KURARAY KK 11.09.74-JP-104561
 A96 B04 (27.08.81) *J51031-689 B01d-15/08 + B01j-20/26 C12n-11 G01n-31/08
 11.09.74 as 104561 (BL)

The carrier is prepd. by treating a fine powder body having hydroxyl radicals at the surface (dia. about 1 micron -3 mm e.g. alumina, TiO₂, zirconia, silicate, etc.) by dipping in 0.05-5% solution of 2-(methyl dimethoxy silyl propyl amino)ethyl amine and a polymer with radicals of formula (I), is reacted with the amino radicals of an aminosilane cpd. bonded to the surface of the fine powder body. Reaction is pref. at pH 9-11 and room temp. to 60 deg.C.

The polymer of formula (I) is obtd. by reacting poly-4-vinyl pyridine quat. cpds. with 2,4-di-nitro chlorobenzene. (J51031689) (5pp)



TOKU/ D16 53270 B/29 = J8 1037-785
Fermentative prodn. of seasoning - by spraying rice bran with water, steaming, fermenting or saccharifying and collecting supernatant

TOKUDA T 17.11.77-JP-137292
 (02.09.81) *J54070-499 A231-01/23
 17.11.77 as 137292 (42PW)

Fermentative prodn. of seasoning (I) comprises (1) spraying water on rice bran, (2) steaming, (3) fermenting or saccharifying with the addition of saccharifying enzyme, koji, yeast or microbial used for usual fermentation of Japanese liquor (sake) and (4) collecting the supernatant.

(I) masks the bad odour in foods. (I) is rich in amino acids, such as lysine, serine, glutamic acid, isoleucine, leucine and phenylalanine, and organic acids, such as lactic acid, acetic acid and succinic acid. (J54070499) (5pp)

HOND/ D16 18765 A/10 = J8 1037-788
Mixed wine-sherry prepn. - by blending sherry with grain alcohol and refined sake to avoid redox potential rise on adding more alcohol

HONDA T 10.07.76-JP-082277
 (02.09.81) *J53009-396 C12g-03/04
 10.07.76 as 082277 (6DJ)

Method comprises mixing sherry with grain alcohol and 0.5-2 times the amt. of sake sherry.

The mixed wine has light touch and good sherry flavour. The mixed wine is used as a dessert wine or an aperitif, by diluting the sherry by 5-10 times.

By applying matured alcohol and sake, the rise in redox potential, which is often observed or applying fresh alcohol, is avoided when blending. (J53009396) (4pp)

ASAH D16 19366 X/11 = J8 1037-789
Treating vegetable fermented beverages - by contact with adsorbent contg cellulose deriv to remove proteinaceous materials

ASAHI CHEMICAL IND KK 10.07.74-JP-078173
 A97 (02.09.81) *J51009-796 B01d-15 C12h-01/04
 10.07.74 as 078173 (BL)

An intermediate liq. prod. or final liquid prod. obtd. in prodn. of a vegetable fermented beverage such as beer, fruit wine or the like is contacted with an adsorbent contg. a cellulose deriv. of formula

Cell-O-CH₂-CH-CH₂-NR₁R₂ (I) and
 Cell-O-CH₂-CH(NR₁R₂)-CH₂-OH (II)

(where R₁ and R₂ are alkyl, alkylene, carboxyl, phenyl, alcohol residue or nuclear substd. phenyl; and Cell is cellulose).

The non-biological haze of vegetable fermented beverages can be prevented by this process. (J51009796) (5pp)

NIRA ★ D16 71055 D/39 ★ J8 1037-790
Cultivation of yeast of genus Hansenula - in culture medium contg. ethanol as main carbon source (J5 20.8.75)

UNITIKA KK 30.01.74-JP-012620
 (02.09.81) C12n-01/32
 30.01.74 as 012620 (22HM)

Novel yeast, Hansenula-22 of genus Hansenula is cultivated in a culture medium contg. ethanol as the main C source. This novel yeast can assimilate ethanol. (J49012620) (3pp)

KYOW D16 18459 Y/11 = J8 1037-793
Creatinine-desimidase prodn. - by cultivating Brevibacterium, Corynebacterium, pseudomonas or arthrobacter in nutrient media, for creatinine quant. determ. (NL020377)

KYOWA HAKKO KOGYO 11.09.75-JP-109452
 B04 S03 S05 (02.09.81) *DE2637-671 + C12n-09/78 C12r-01
 11.09.75 as 109452 (200RP)

Creatinine-desimidase (I) is prepd. by cultivating a (I)-forming microorganism of species Brevibacterium, Corynebacterium, Pseudomonas or Arthrobacter in a nutrient medium, until (I) is formed in fermentation liquor and/or in microorganism cells. (I) is then separated.

(I) is pref. used for quantitative determination of creatinine, in blood serum or urine, as a diagnosis for kidney diseases, e.g. acute and chronic nephritis, obstruction of urethra, Hg poisoning and nephrosis. Determn. takes place by reacting sample with a soln. of (I), pref. 10-30 mins. at 30-50 deg. C, until creatinine is hydrolysed to NH₃ and N-Me hydantoin. Quantities of NH₃ and/or N-Me hydantoin are then measured.

(I) does not react with creatine, creatinine phosphoric acid, urea, arginine, glutamic acid, canavanine, glutamine, cytosine or guanine. When used in creatinine determination, results are repeatable and standard deviation coefft. is 1.2 (for NH₃ test). (J52034976) (5pp)

LOW D16 53723 B/29 = J8 1037-794
Fixed complex membrane prodn. - by permeating first and
cond enzyme solns. in turn through membrane from porous
support side to active layer side
SNOW BRAND MILK PRODUCTS 19.11.77-JP-138427
B04 (02.09.81) *J54073-184 + C12n-11/18
11.77 as 138427 (5NS)
Enzymes are fixed in a porous supporting layer of an asymmetric
selective permeating membrane in orderly layers. Process
comprises first permeating the first enzyme soln. through the
membrane from the porous supporting layer side to the active
layer side, and similarly permeating the second and opt. other
enzyme soln.(s) through the membrane.
Using the membrane enzymic reactions can be easily effected.
When the final prod. has a much smaller mol. wt. than the
substrate, the final prod. can be obtd. as the filtrate. (J54073184)
(pp)

LAKE D16 69223 W/42 = J8 1037-795
Antibiotic B-98891 from Streptomyces culture - for use as
agricultural fungicide
TAKEDA CHEMICAL IND KK 28.03.74-JP-035254
B04 C03 (02.09.81) *DE2513-249 A01n-63/02 A61k-35/74 C07c-
11 C12r-01/46 + C12p-01/06
8.03.74 as 035254

The new antibiotic B-98891 is obtd. by culturing a suitable
Streptomyces strain (esp. Strept. rimofaciens IFO13592) under
aerobic conditions in a medium contg. an assimilable C source
and a utilisable N source, and isolating the antibiotic from the
medium.

B-98891 is esp. useful as an agricultural fungicide; its activity
against barley mildew is superior to that of benomyl, and it also
has high activity against mildew on melons, apples, peppers,
tobacco and roses and against tomato brown rot; its phytotoxicity
is negligible and its mammalian toxicity is very low (LD50 2000
mg./kg., p.o., mouse and rat); it has slight activity against some
bacteria, pathogenic fungi and yeasts (e.g., MIC at least 50
micro.g/ml. (J50126892) (10pp)

SUB D16 73643 A/41 = J8 1037-796
Antibiotic Multiomycin prepn. - by culturing Streptomyces
microorganism in medium contg. cotton seed powder as nitrogen
source
KUMIAI CHEM IND KK 15.02.77-JP-015277
B04 (02.09.81) *J53101-593 + C12p-01/06 C12r-01/46
5.02.77 as 015277 (43DJ)

Multiomycin (I) is prepd. by culturing (I) bacterium on a culture
medium contg. 3-12% cotton seed powder and adjusted to pH 4.0-
8.

The process increases the prodn. rate of Multiomycin by
culturing Streptomyces S.P. 8446-CCl (applcn. no. 3284) on a
culture medium composed basically of those used for culture of
Actinomyces and added with cotton seed powder as nitrogen
source and pH 4-8, pref. in the form of liq. medium, in aerobic
conditions, at 10-50 deg. C for 1-8 days.

The process produces (I) on an industrial scale. (J53101593)
(pp)

JOJK D16 13737 Y/08 = J8 1037-798
Gel-formable yeast protein prepn. - by extraction of yeast bodies
with dilute alkali soln., neutralisation and heat treating
KOHJIN KK 25.06.75-JP-077523
(D13) (02.09.81) *J52003-896 A23j-01/18 + C12p-21
5.06.75 as 077523 (5BL)

The yeast bodies (e.g. pulp waste yeast, bread yeast, yeast
obtained from acetic acid, etc.) are extracted with the alkali soln.
at room temp. or with heating, the extract is neutralised after
drying, and the yeast proteins obtd. are heat treated at 60-100
(30-80) deg. C with hydrophilic organic solvent.

This process allows removal of solubles, including lipids and
low molecular components, from yeast proteins and making
yeast proteins high molecular substance. It can be practiced
easily and simultaneously, and sufficient water-holding property
and gel-forming property are given to the yeast proteins. This
process can be adapted for industrial use. (J52003896) (4pp)

NOVO ★ D16 D/39 ★ SE 8100-713
Ethanol prodn. from aq. suspension of granular starch - by
fermentation in presence of alpha-amylase or glucoamylase (BR
8.8.81)
NOVO INDUSTRIES 06.02.80-US-119034
E17 (07.09.81) C12p-07/06
30.01.81 as 000713 (903WB)

Ethanol prodn. is carried out using an aq. suspension of starch
granules in the presence of alpha-amylase or glucoamylase. The
concn. of dissolved sugar is almost zero under the fermentation
conditions. The enzyme may be recovered for re-use.

PETR D16 20101 Y/12 = SU -791-769
Antiwear additive esp. for diesel and aircraft turbine fuels -
consisting of biolipid extract from microbial processing of
hydrocarbons
VEB PETROCHEM SCHWEDT (BOHL) 16.12.75-DD-190166
(31.10.75-DD-189162)
H06 (01.01.81) *DD-123-811 C101-01/26
13.10.76 as 409353 (GW)

Antiwear additive for mineral oil prods. consists of the biolipid
extract from microbial processing of hydrocarbons. It is added in
amts. of 0.001-0.1 (0.001-0.05)%.

Wear of components, e.g. injection pumps, is reduced without
adversely affecting other properties, e.g. thermal stability or
emulsification in water, and without increasing the N or S
content. In an example, addn. of 0.05% biolipid extract to a
refined diesel fuel increases its Alman-Wiel and break load from
180 + -50 to 320 + -50 kp. Bul. 48/30.12.80. (2pp)

MOSU ★ D16 71163 D/39 ★ SU -791-771
Determining recoverability of adenosine triphosphate from soil -
includes treating soil with known amt. of adenosine
tri:phosphate, re-extn. and luciferin luciferase reaction
MOSCOW LOMONOSOV UNIV 10.10.78-SU-672645
(30.12.80) C12n-01 C12q-01
10.10.78 as 672645 (70VE)

Amt. of adenosine triphosphate recoverable from soil after
introduction of a sample of an adenosine triphosphate-contg.
substance into the soil is determined by extn. followed by the
luciferin- luciferase reaction effected in the extract.

The accuracy of this method is increased by using a sample of a
lyophilised microorganism culture contg. a known amt. of
adenosine triphosphate. The sample is admixed to the soil and
treated with boiling water for 1-2 sec. (2pp)

KURE D16 79384 A/44 = SU -793-408
Increasing antibiotic activity against resistant bacteria - using a
nitrogen-contg. polysaccharide extracted from Coriolus
mycelium

KUREHA CHEM IND KK 13.04.77-JP-041513
B04 (01.01.81) *NL7803-875 A61k-31/71 C12d-13/04
12.04.78 as 602548 (GW)

The sensitivity of resistant bacteria to antibiotics is increased
using an N-contg. polysaccharide (I) which can be obtd. by
extracting the mycelium of a basidiomycete of the genus Coriolus
(family Polyporaceae) with an aq. solvent and working up the
extract. (I) has a mol. wt. of 500-300000 contains 42.0-46.0% C, 5.3-
7.0% H and 0.5-8.0% N, has a specific rotation between 0 and +50
degrees. is readily soluble in H2O but insoluble in acetone,
pyridine, CHCl3 and hexane, and has characteristic IR
absorption bands as ca. 840 and 890 cm. to minus one.

(I) can be administered in association with a wide range of
antibiotics (e.g. penicillins, cephalosporins, tetracyclines,
streptomycin, kanamycin and chloramphenicol) to increase the
strength and duration of their activity against various resistant
strains of e.g. Staph. aureus, E. Coli, Sain enteritidis, K.
pneumoniae, Shigella sonnei, Ps.aeruginosa Strept.faecalis,
Proteus mirabilis and Enterobacter aerogenes. Bul. 48/30.12.80.
(9pp)

ROME = ★ D16 71218 D/39 ★ SU -793-566
Test for immunological reaction of animal cells - includes
culturing test cells with antigen in horizontal and inclined slotted
chambers

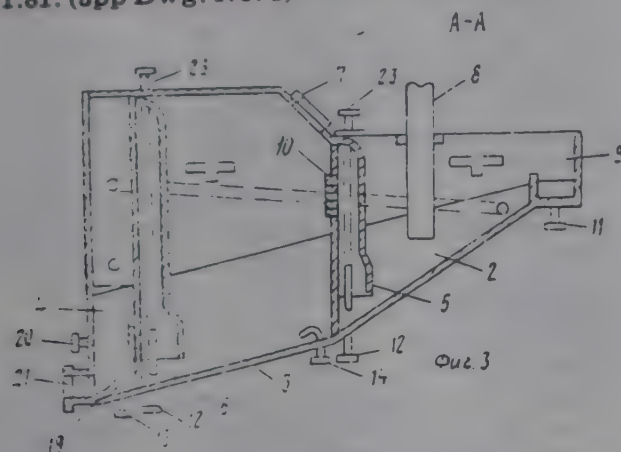
ROST MED INST 11.09.78-SU-662956
B04 S03 P31 (S05) (12.02.81) A61b-10 G01n-33/16
11.09.78 as 662956 (938GW)

Animal cells concerned in body immunity to infections, e.g.
whooping cough infection, are incubated with corresp. antigen,
e.g. whooping cough antigen, and the treated cells migration is
evaluated to estimate cell's immunological reaction. The method
of the estimation is simplified if the test cells are incubated for 1-6
hrs. in slotted cultivation chambers with slots in horizontal plane
followed by the 1.8 hrs. cultivation with slots inclined at 10-15 deg.
angle. The cell's immunological reaction to the presence of the
antigen is then evaluated by difference in the length of cell's
layer formation. Bul. 1/7.1.81. (2pp)

VOTE = ★ D16 71269 D/39 ★ SU -793-645
Appts. for washing and disinfecting grain - in which grain is
treated twice with fresh water and compressed air, and after
removing unwanted impurities is washed with disinfectant
VORON TECH INST 05.03.79-SU-733736
P41 (12.02.81) B02b-01/06
05.03.79 as 733736 (29GW)

Appts. for washing and disinfecting grain is used in the prodn. of
alcohol, alcohol-free drinks, and glucose. It has horizontal
chamber (1) divided by a vertical partition into two chambers

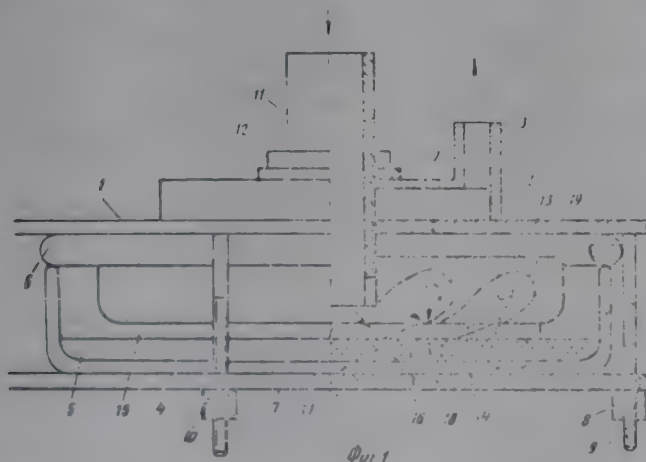
(2,3), i.e. washing and water-sepn. sections. The chamber has a lid, pipe to supply the grain (8) together with the treatment soln. plus an attachment to mix the grain, discharge it, and also separate the mud. The quality of the final grain is increased, as a result of intensifying the friction, by dividing the washing chamber (3) with an extra partition into two parts. The attachments for mixing the grain are fastened to the partition, and are as pipes which are semicircular in cross-section. Tubes are connected to the lid for feeding in compressed air. The water-sepn. section (4) has guiding shelves at an angle of 50-60 deg. to the horizontal, and made 2/3rds of their length with perforations. Bul. 1/7.1.81. (3pp Dwg. No. 3)



VETE = ★ D16 71406 D/39 ★ SU-794-073
Bacterial aerosol dispersion research assembly - has cross with annular projections forming slits with cascading element baffles
VETERINARY RES INST 26.01.78-SU-574428
 (22.01.81) C12k-01/10

26.01.78 as 574428 (18GW)
 The assembly comprises a body (1) with draught neck (3) and suction neck (11), container (4) for nutrient (5) with sealing element (6), and a cascading element (13) with annular baffles (14). To reduce losses of the dispersion phase of the aerosol, it has a cross (15) with annular projections (16) set in the nutrient container. The annular baffles of the cascading element are concentric with the annular projections of the cross, to form slits (18), reducing in the direction of passage of the aerosols.

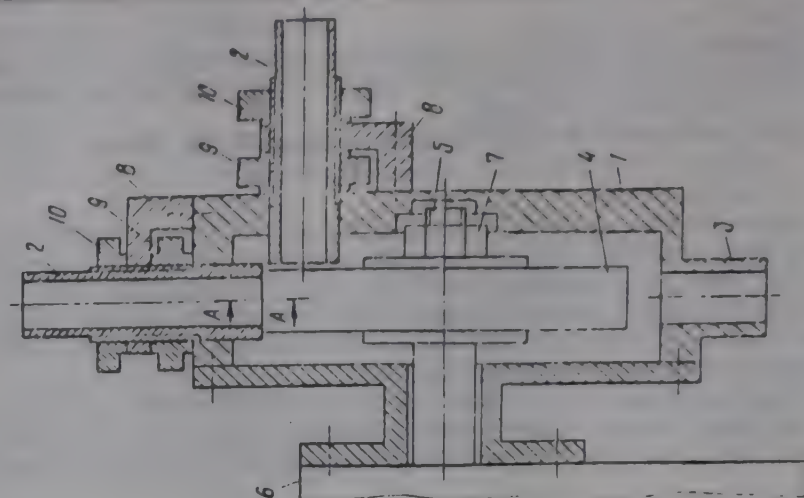
The annular projections are of rectilinear triangle shape in cross-section and the annular baffles of the cascading element are bent. The inner surface of the baffle is at a tangent plane to the inclined surface of the corresp. projection. Bul. 1/7.1.81. (3pp Dwg. No. 1)



ASBI = ★ D16 71407 D/39 ★ SU-794-074
Micro-organism disintegrator - has abrasive disc with endface of suspension tube above it leaving working clearance
AS USSR BIOLOG EQUI(ASMI=) 27.11.78-SU-709109
 P41 (22.01.81) B02c-07 C12k-01/10

27.11.78 as 709109 (18MI)
 The disintegrator comprises a body (1), at least one tube (2) for input of suspension, tube (3) to let out the disintegrate and crushing disc (4). For productivity and better disintegration, the disc is made of abrasive material. The endface surface of the suspension tube is above the surface of the disc, leaving a working clearance for the disintegration of the suspension between these surfaces. The end surface of the tube has the same profile as the disc in the working clearance.

To preserve the subcellular structure and biochemical activity of the disintegrate, a cooling or thermostating substance such as carbon dioxide or liquid nitrogen is supplied through one of the necks. Bul. 1/7.1.81. (3pp Dwg. No. 1)



SHEL/ D16 18754 C/11 = US 4288-241
Sludge conversion to compost - by alternating blowing and exhausting of air through pile

SHELEFG (ECOL) 22.08.78-BR-005441
 (D15) (08.09.81) *DE2933-565 + C05f-11/08
 26.07.79 as 060989 (6KB)

Sludge-composting process, comprises piling windrow sludge piles on perforated pipes periodically subjected to air pressure and suction alternately, specifically by a timer-controlled reversible blower.

Pref. the pipes of two adjacent piles are interconnected, so that suction air from one pile is used as press. air for the other when the blower operates. Uniform drying is attained while keeping moisture content at optimum level, pref. 45-70%. (3pp)

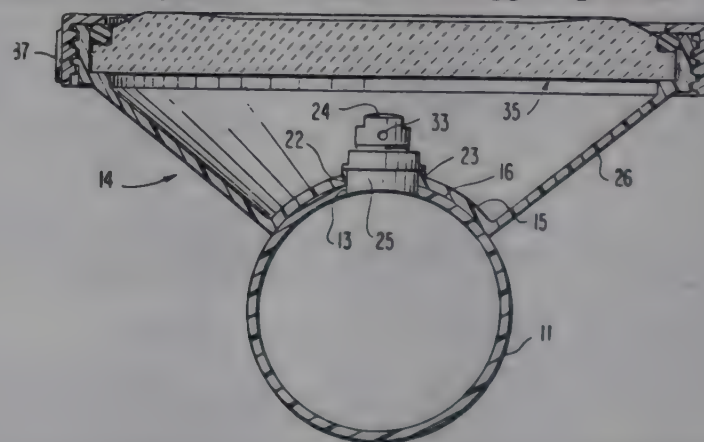
WATE- ★ D16 71633 D/39 ★ US 4288-394
Sewage aeration system - with air diffusers carried by plastics plenum over valved apertures in header pipe

WATER POLLUTION CON 10.12.79-US-102175 (19.10.78-US-952891)
 (08.09.81) B01f-03/04

10.12.79 as 102175 (525DH)
 A sewage aeration system comprises a header pipe (11) having a series of apertures (13) in which are located air flow regulators (25). Located over each aperture and held in place by a curved lower wall (16) is a plastics plenum (26) the top of which is closed by a porous diffusion element (35).

The element is maintained in position by a peripheral securing means such as a screw-on clamping ring and a sealing ring maintains the seal around the element.

A simple system to set up with the avoidance of large bubbles and with uniformity between elements. (15pp dwg.No.3)

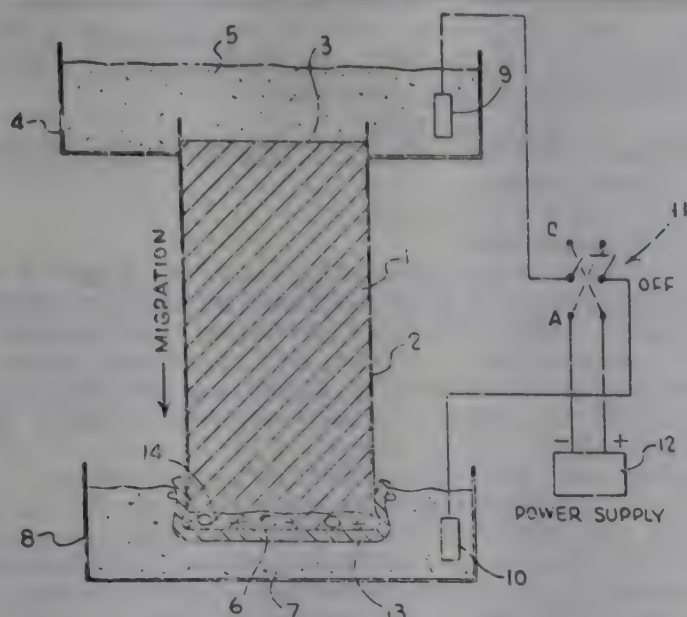


TECD D16 57193 C/33 = US 4288-425
Disc electrophoretic method for immunochemical reactions - with conc. of one component, then migration into zone contg. the other reactant

LEE M J 31.01.79-US-008203
 B04 S03 (S05) (08.09.81) *DE3003-191 G01n-33/48
 31.01.79 as 008203 (1358NS)

Disc electrophoresis analysis, partic. immunoassay, comprises introducing a sample into porous medium, applying an electrical field so that a constituent migrates and concentrates by steady-state stacking, and further migrating the stacked constituent through a second part of the medium contg. reactant.

The field is pref. applied across the medium after reaction to separate reaction prod. from unreacted constituent, one of these being measured. The sample may also contain a labelled equivalent of the constituent, and the reaction stage involve competitive binding. Reactant and constituent may be concentrated by steady-state stacking concurrently. (1pp)



BAXT ★ D16 71677 D/39 ★ US 4288-538
 Determin. of total steroid(s) in samples also contg. conjugates - by simultaneous contact with steroid receptor and enzyme compsn.

BAXTER TRAVENOL LABS INC 31.01.79-US-008124

B04 (B01) (08.09.81) C01n-31/14 C12q-01/13

01.01.79 as 008124 (1248BZ)

Determin. of total steroids in a test sample contg. steroids and steroid conjugates is by a specific binding assay. The test sample is contacted simultaneously with a receptor for the steroid and with an enzyme compsn. for converting the steroid conjugates to the steroids. Test compsn. contg. the receptor and the enzyme is new.

The time required for the assay is reduced, as the receptor binding and enzyme conversion can be effected together during about 30 mins. whereas the usual sequential procedures require up to 3 hrs. The test compsn. can be provided more economically. The binding assays are otherwise conducted in the usual way esp. with radiotracers etc. (6pp)

MERI ★ D16 71678 D/39 ★ US 4288-539
 Bacterial or antibody assay - using multi-well assay plate

MERCK & CO INC 28.02.79-US-016252 (09.05.77-US-794772)

B04 S03 (08.09.81) C12q-01/04 G01n-33

28.02.79 as 016252 (367BZ)

(A) Method for identifying Gram-negative bacteria in a sample comprises (a) incubating the serially diluted sample with reference antiserum to the bacteria and a complement in the wells of a multiwell assay plate; (b) adding a liq. growth medium; (c) incubating the mixts. to allow bacterial growth; and (d) measuring the inhibition of bacterial growth. (B) Method for determining the level of antibody to a species of Gram-negative bacteria in a sample comprises (a) incubating the serially diluted sample with the corresp. bacterial culture and a complement in the wells of a multiwell assay plate, and then carrying out steps (b)-(d) as in (A). Step (a) is pref. effected at 37 deg.C. and 100% RH or 30-50 min. Step (c) is pref. effected in a humidified atmos. contg. 5% CO₂.

The methods are esp. applicable to E. coli, S. typhi, N. meningitidis, N-gonorrhea and H. influenza. They are readily automated and are stated to be faster and more accurate than conventional methods. (4pp)

TURC/ D16 78955 C/45 #US 4288-540
 Early detection of cancer - by agglutination reaction of serum with immobilised Agrobacterium tumefaciens

TURCOTTE H 30.01.79-CA-320534 (09.05.80-US-148257)

A06 B04 S03 (S05) (08.09.81) *CA1087-523 G01n-33/54

09.05.80 as 148257 (945WB)

Reagent for early detection of cancer comprises the water-soluble extract of bacillus agrobacterium tumefaciens, strain 17022, adsorbed on red blood cells, yeast cells or particles of polyvinyl latex, kaolin or animal black.

The reagent is contacted with a patient's serum. If there is a positive agglutination reaction the patient has a cancer in evolution. Method can be used for routine screening. Suitably the extract is adsorbed on red blood cells, gp.O, Rh. negative or on pherules of polyvinyl latex of dia. 0.81 micron. (3pp)

PFIZ D16 57116 A/32 = US 4288-543
 Identification of microorganisms in sub-samples - with different growth-inhibiting agent added to each and statistical evaluation (NL 1.8.78)

PFIZER INC 17.10.77-US-842736 (28.01.77-US-763719)

B04 S03 S05 (08.09.81) *DE2803-044 C12q-01/04 + C12m-01/34

17.10.77 as 842736 (945WB)

Method of identifying a microorganism strain in a liq. sample

comprises sepg. the sample into at least 18 sub-samples and inoculating each sub-sample with a different amt. of growth inhibitor. Following incubation the growth of each sub-sample is measured and compared with a bank of microorganism identifying data relative to the growth inhibitors by quadratic discriminant function analysis.

The growth inhibitors are chosen from acriflavine, 9-amino-acridine, auramine O, brilliant green, cetrinide, cobalt and cupric chloride, cycloserine, 3,5-bromosalicylic acid, dodecylamine, hydrochloride, 5-fluorouracil, floxuridine, malachite green, methylene blue, omadine disulphide, sodium omadine and azide, thallous acetate, 2',3',4'-trihydroxyacetophenone, bacitracin, carbenicillin, cephalothin, colistin, kanamycin, methenamine mandelate, nalidixic acid, nitrofurantoin, novobiocin, polymyxin B and tetracycline. (10pp)

KYOW D16 18946 C/11 = US 4288-544
 Determin. of microorganism activity - using two similar electrode sets, one in contact, one separated from microbes by porous membrane

KYOWA HAKKO KOGYO 23.08.78-JP-101897

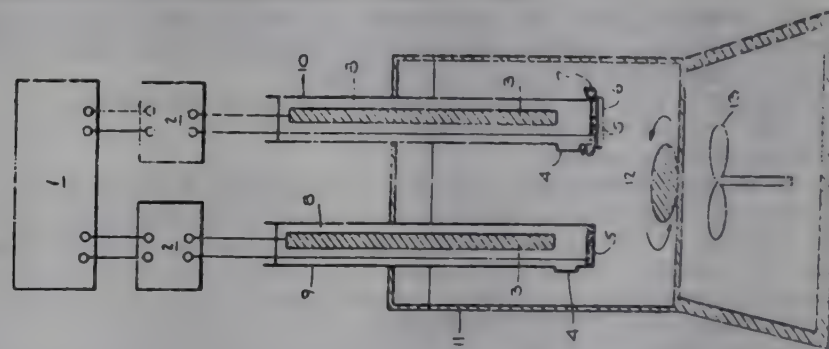
J04 S03 T06 (08.09.81) *GB2029-026 C12m-01/34 C12q-01/06

01.05.79 as 035092 (1358NS)

The number of living cells in a liq. is determined by measuring the electrical current or potential generated by these and correlating with values for known concentrations. The method is partic. to determine microorganism concentration.

The appts. pref. includes two electrode systems (9,10) each with a cathode (3) having an inside electrolyte (8) with a liquid interface with the test liquid, and an exposed anode (5). One anode is covered with a microorganism impermeable membrane (6) for measuring microorganism activity on the outer side of the membrane. Each of the cathodes and anodes are arranged in parallel and are connected to an ammeter or potentiometer.

The method is reliable and simple, and is partic. applicable to industrial fermentation processes. (7pp)



REGC ★ D16 71681 D/39 ★ US 4288-546
 Selective pituitary gland hormone prodn. - by serial sec. suspension culture of pituitary tissue in amino acid medium contg. liver extract, insulin, antibiotics and hormone

UNIV OF CALIFORNIA 06.11.78-US-957725 (09.04.76-US-675643)

B04 (08.09.81) A01n-01/02 C12n-05/02 C12p-21/02

06.11.78 as 957725 C.i.p 4124448 (916BZ)

Nutrient medium for the serial subculture of pituitary gland cells consists of amino acid rich nutrient Medium 199-1X with Earle's modified salts, 5 to 20 ml liver extract, 6 to 20 IU insulin and minor amounts of antibacterial and antifungal agents. The culture produces prolactin when it additionally contains 10 to 100 mg/l medium 199-1X of a progesterone-androgenic substance and prolactin and lutenizing hormone (LH) when 5 to 40 mg/l of an estrogenic substance is present.

Hormones produced in this way are cheaper than those extracted directly from a natural source. When pituitary cells are cultured without the additives, a whole range of hormones are produced including LH and prolactin, but the additives stimulate the production one or two hormones over all the others. (5pp)

YAMA/ D16 38414 D/22 = US 4288-547
 Antibacterial amino-glycoside 2-hydroxy gentamycin antibiotic derivs. - prepd. by fermentation of Micromonospora purpurea ATCC 31536 in the presence of streptomycin

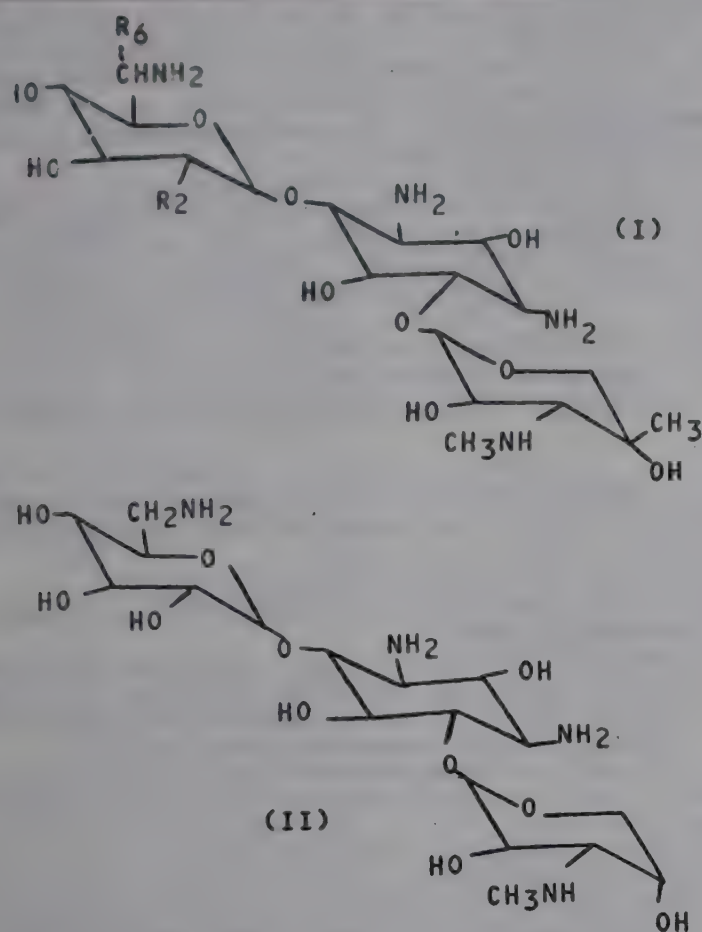
YAMAMOTO H 13.11.79-US-093062

B03 (08.09.81) *DE3042-075 C12p-19/48

13.11.79 as 093062 (936PW)

Prodn. of gentamicin class antibiotics of formula (I) or (where R₂ is OH or NH₂ and R₆ is H or methyl) comprises culturing a nutrient medium contg. carbohydrates, a source of assimilable N, essential salts and D-streptomycin with M.pulpurea ATCC 31536, and isolating the prods.

(I) and (II) are suitable for oral, topical or parenteral admin. and can be prepd. for use by suspension, either as free bases or acid addn. salts. (11pp)



ELIL D16 90140 C/51 = US 4288-549
Antibiotic A-42355 obtd. by cultivation of *aspergillus nidulans* - var. *roseus* (NRRL 11440), comprising factors A,B,D and H of antibiotic A-30912 factor A is echinocandin B

ELI LILLY & CO 03.03.80-US-126078 (08.06.79-US-046744)
B02 C02 (08.09.81) *BE-883-592 C12p-17/18
03.03.80 as 126078 (936PW)

Prodn. of A-42355 antibiotic complex comprising A-30912 factors A,B,D and H comprises cultivating *Aspergillus nidulans* var. *roseus* NRRL 11440 in a culture medium contg. assimilable sources of carbohydrate, nitrogen and inorganic salts under submerged aerobic fermentation conditions until a substantial amt. of antibiotic activity is produced.

Complex is pref. sepd. from the medium and individual factors esp. isolated. The A-30912 factors have antifungal activity. (11pp)

AGEN D16 50074 B/27 = US 4288-550
Treating garbage-contg. dust - by crushing, adding water to form slurry, fermenting, neutralising and contacting with methanisation bacteria in anaerobic state

AGENCY OF IND SCI TECH 08.11.77-JP-133017
(08.09.81) *J54066-568 + C12p-05/02
01.11.78 as 956724 (974JB)

Starch-contg. garbage is digested by (i) subjecting to an alcohol-producing anaerobic fermentation in the slurry state without sterilising the garbage in the presence of at least one yeast which directly converts starch into ethanol without a hydrolysis pretreatment step; (ii) subjecting the fermented product to an aerobic fermentation in the presence of methane-producing bacteria which directly converts ethanol into methane and (iii) recovering the methane produced. (7pp)

NOVO D16 77179 B/43 = US 4288-552
Immobilising glutaraldehyde-sensitive enzymes - in aq. medium in presence of poly:amine(s) esp. polyethylenimine

NOVO TERAPEUT LAB A/S 19.04.78-GB-015521
A96 B04 (08.09.81) *BE-875-657 C12n-11
11.04.79 as 029156 (974JB)

Intracellular glutaraldehyde-sensitive enzyme is immobilised by reacting, in an aq. medium, microbial cell material contg. the enzyme with glutaraldehyde in the presence of a branched polyalkylene imine added to the medium before or simultaneously with the glutaraldehyde, and then recovering the prod.

The polyalkylene imine has prim. amino gps. on the molecule at a ratio of prim. aldehyde equivs.:aldehyde equivs. of 0.01-10:1.

Pref. the cell material is whole microbial cells. Pref. it is NRRL 11240 contg. penicillin V-acylase, or a *Bacillus pasteurii* contg. urease. (7pp)

SYNT *

D16

71688 D/39 ★ US 4288-553

Disopyramide conjugates with antigen or enzyme - and carboxy-alkylated disopyramide intermediates

SYVA CO 11.02.80-US-120590
B04 S03 (S05) (08.09.81) C02d-211 C12n-09/96 G01n-33/54
11.02.80 as 120590 (367BZ)

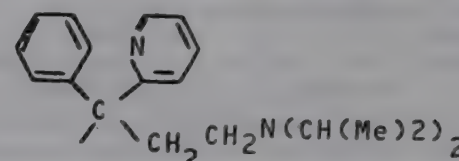
Disopyramide derivs. of formula
(ACONHR(CO)m)nZ (I)

are new (where A is a gp. of formula (A) R is a 1-6C satd. aliphatic linking gp.; Z is H, OH, alkoxy, a gp. forming an activated ester capable of amide formation in an aq. medium or an antigenic or enzymatic polypeptide; m is 0 or 1 when Z is a polypeptide and is otherwise 1; n is 1 when Z is not a polypeptide and is otherwise an integer from 1 to M/500, where M is the molecular wt. of Z).

Cpds. of formula ACONHRCOOR' (where R' is alkyl) can be prep'd. by treating ACONH2 with NaH to form the anion, and reacting this with XRCOOR' (where X is halogen, pref. Br). The prod. is then hydrolysed to the free acid ACONHRCOOH (III), which is converted to an activated ester, e.g. by reaction with N-hydroxy-succinimide (NHS). The activated ester is then reacted with an antigen or enzyme.

(I; Z is antigen) are useful for producing novel antibodies to disopyramide (II), and the antibodies together with (I; Z is enzyme) are useful for enzyme immunoassay of (II) in blood serum, e.g. for monitoring arrhythmia therapy. (5pp)

(A)



EUTE- ★

D16

71684 D/39 ★ US 4288-554

Continuous aerobic cultivation of yeasts - on aq. medium contg. urea and sec. nitrogen source and methanol as carbon source

EUTECO IMPIANTI 20.12.79-US-105486
(08.09.81) C12n-01/32

20.12.79 as 105486 (478BZ)

The known continuous aerobic cultivation of yeast cells (I) in which an aq. medium contg. an N-source and MeOH (as C-source) is continuously fed to a fermentation vessel while a stream of medium is continuously discharged and (I) are recovered is improved: (a) by using *Candida boidinii* as the yeast; and (b) by using a medium contg. a prim. N-source (II) and a sec. N-source (III). (II) is urea; (III) is NH₃, NH₄OH, or an NH₄ salt (or mixts.); and the ratio (II):(III) is 2-1:1-20.

Ratio (II):(III) is pref. 1:1-10, esp. 1:1-2, partic. ca 1:1.5. (III) is pref. (NH₄)₂SO₄. Cultivation is at 26-33 deg./pH 3-6 pref. 3-5, esp. ca 5 (e.g. controlled with NH₃) with MeOH content at least 10 ppm pref. ca 50 ppm, and residence time 6-10 hr. The medium pref. also contains nutrients from K, P, S, Mg, Ca, Fe, Mn, Zn, Mo, Na, Cu, B, I₂, or Co. The (I) content of the growth medium is generally 0.5-5% pref. 1-3% by wt.

Use of urea as well as a sec. N-source gives higher yields of (I) at satisfactory rates of MeOH transformation. (I) are animal and/or human foodstuffs. (6pp)

KURE

D16

15867 A/09 = US 4288-555

Culture of basidiomycetes of *coriolus* species - with homogenisation of inoculating culture to prepare polysaccharide

KUREHA KAGAKU KOGYO 24.08.76-JP-100157

B04 + P13 (B07 D13) (08.09.81) *BE-858-000 C12n-01/14
17.12.79 as 104400 (974NS)

Coriolus versicolor (Fr.) Quel is grown by inoculating a culture medium with a homogenised slurry or seed mycelia of the fungus and cultivating under submerged conditions.

The mycelial lumps are homogenised with rotating propellers at 3000-6000 rpm for 1.5-2.5 mins. to reduce their size to 50-1000 microns and at the same time obtain homogeneously dispersed seed mycelia in the form of threads without cutting into the seed mycelia. The seed mycelia are used at 0.01-0.2 g per litre culture medium. (3pp)

RHON

D16

19910 A/11 = US 4288-556

Streptomyces caligosus NRRL 8195 - used for prodn. of proteolytic enzyme (24199 RP) which depliates animal skins (NL 28.2.78)

RHONE-POULENC INDUSTRIES 24.08.76-FR-025631

(D18) (08.09.81) *DE2737-711 C12n-09/52 C14c-01 + C12n-01/20
16.08.77 as 825055 (393PW)

Biologically pure culture of microorganism *Streptomyces caligosus* DS 14486 has the identifying characteristics of NRRL 8195 and can produce the proteolytic enzyme, 24199Rp. recoverable amts. upon culturing in nutrient medium contg. assimilable sources of C and N and inorganic constituents.

Pref. C sources are at least 1 g/l of each of the following:

ore of (Inorganic NH₄ salts, urea, amino acids and cpds. contg. proteinaceous N; and inorganic constituents are 1 or more of alkali (ne earth) metal chlorides and sulphates and salts of Zn, Cu, Fe, (n and Mn).

The enzyme produced is novel and useful in depilation of animal skins. (10pp)

ERI ★ D16 71685 D/39 ★ US 4288-557
repn. of antigenic complex from *neisseria gonorrhoeae* - by sepn. of high molecular wt. fraction from homogenised cell paste
MERCK & CO INC 05.03.80-US-127297 (20.12.77-US-862265)
B04 (08.09.81) C07g-07

03.80 as 127297 Div.ex.4220638 (+12.10.78-US-949581) (1248BZ)
repn. of antigenic immunogenic complex involves stirring a homogenised cell paste of *Neisseria gonorrhoeae* for 10-15 hrs, then removing cellular debris, RNA and DNA from the mixt. and sepn. a fraction of molecular wt. over 9 million. The complex has a molecular wt. of 9.2-9.5 million, with over 80% of the complex being formed of 5 sub-units in equal amounts and having molecular wts. of about 68,000, 50,000, 34,000, 27,000 and 10,500. The complex contains (dry wt.) 90-95% protein, 7% polysaccharide, 2% carbohydrate and less than 1% RNA, DNA and phospholipids.

The complex is protective against *N gonorrhoeae* infections and it can be included in a safe and effective vaccine, e.g. by using sterile saline as vehicle. The complex is described in S4220638 (Der.67636 C/38). (3pp)

ROQF D16 18401 C/11 = US 4288-619
recovery of alpha-hydroxy- and alpha-amino carboxylic acids - from sugar media, by treating media contg. their calcium salts with a calcium-form cation exchange resin and eluting with water
ROQUETTE FRERES SA 31.08.78-FR-025239
A91 B05 E16 (D17) (08.09.81) *BE-878-531 C07c-51 C07c-99
0.08.79 as 071371 (965AS)

In the recovery of alpha-hydroxy- and alpha-amino-carboxylic acids as their calcium salts from a supary media (I) contg. the Ca salts, (I) is contacted with a cationic resin in Ca form for long enough to achieve optimal adsorption of the Ca salt. The previously satd. resin is eluted with water to provide first fractions enriched in sugar, and latter fractions enriched in the required salts, which are then recovered. Pref. the contact time between (I) and the resin corresp. to a flow rate of 0.2-5 vols.
A quantitative recovery is obtd. (9pp)

PROC- ★ D16 D/39 ★ ZA 8005-297
Alcohol prodn. from grain by degermination - sepn. into starch-protein and germ-hull fractions, enzymatic saccharification of starch and fermentation of sugar mash obtd.

PROCESS ENG CO 27.08.80-ZA-005297
C03 E17 (D13 E36) (10.07.81) C12c

27.08.80 as 005297 (NS)

Grain is subjected to degermination, pref. to dry-degermination and separated into a start-protein fraction and a germ-hull (skin) fraction.

The start fraction is subjected to enzymatic saccharification, the proteins removed from the resulting sugar mash and the mash is fermented to alcohol.

Oils are removed from the germ-hull fraction by solvent extr. and the residue converted into a protein-contg. animal feed. Carbon dioxide (CO₂) and methane gas are obtained as byproducts. (16pp)

See Also

D13 EP--35643	D13 J8 1036910	D13 J8 1037799
D15 J8 1037800	D15 US 4288545	D17 EP--35679
D17 US 4288548	D23 J8 1037797	

D17: SUGAR; STARCH

TAL ★ D17 70084 D/39 ★ EP --35-589
aldoside prodn. from starch and alcohol - by direct acid-catalysed alcoholysis in tubular reactor
STALEY A E MFG CO 03.03.80-US-126257
E13 (16.09.81) C07h-15/04
9.07.80 as 104264 (367BZ) (E) US3346558 US3296245 US4223129 (BE CH DE FR GB LI LU NL SE)

Prod. of hydrocarbyl aldoses is carried out by forcing a slurry of carbohydrate, monohydric alcohol and acid catalyst continuously through a heated tubular reactor, and recovering at least one aldose from the reactor effluent.

The reaction is pref. effected at 100-400 (esp. 160-180) deg.C in a reactor with a length of at least 50 ft and an inside dia. of 0.18-6.0 inch. The MeOH/starch molar ratio in the feed slurry is pref. 6.5-5:1 and the catalyst concn. is pref. 0.1-10 mole % (based on dry starch solids). Suitable catalysts are HCl, H₂SO₄, H₃PO₄ and organosulphonic acids. The effluent is pref. flash cooled as it leaves the reactor, concd. to 40-80% solids, and (I) crystd. out at 5-10 deg.C. The mother liquor is pref. recycled to the reactor together with make-up starch and MeOH.

The process is esp. useful for producing methyl alpha-D-glucopyranoside (I) from starch and MeOH, (I) being useful as an intermediate for surfactants, glycoside polyols, etc. Products contg. at least 45 wt.% (I) can be obtained in high space-time yields. (43pp)

REIT/ D17 69830 D/38 = EP --35-679
Continuous acid hydrolysis of cellulosic vegetable material - for prodn. of sugar for fermentation to alcohol
REITTER F J 23.02.80-DE-006887
(D16) (16.09.81) *WP8102-428 C13k-01/02
21.02.81 as 101260 (513BZ) (G) WP7900119 DE2324022 US4025356 US1677406 E(AT BE CH DE FR GB IT LI NL SE)

Process is claimed for continuous hydrolysis of pentosan-contg. hemicelluloses, cellulose, and similar cpds. in vegetable biomaterial into sugars. The comminuted raw material is treated in a first stage in the presence of dil. acid under conditions of temp. and press. such that the hemicelluloses and only part of the cellulose are hydrolysed during a first period of pentoses and partially hexoses. The reaction mixt. is then suddenly released and the hydrolysate is sepd. from the biomaterial. The cellulose in the biomaterial is then hydrolysed to hexoses in a second stage

with dil. mineral acid under more rigorous condition of temp. and press., after which the press. is again suddenly released and the residual biomaterial is sepd. from the hydrolysate.

The biomaterial is fed into the pressure reaction chambers by means of a screw feed which acts as a pressure seal and in which air and excess moisture in the biomaterial are largely removed. Hydrolysis is carried out in a continuous horizontal cooker in the vapour phase. The neutralised hydrolysate is recovered in several sepn. stages and further processed to recover the sugars.

Process can be used with a wide range of cellulosic raw material including voluminous materials such as annula plant residues, waste paper etc. which cannot be used in percolation type cookers. The sugars obtd. can be fermented to form alcohols, which are useful as a fuel additive. (44pp)

ELEC ★ D17 70426 D/39 ★ GB 2071-701
Electrochemical redn. of acid solns. of sugars - to poly:ol(s), by neutralisation by electrodialysis, then separate electrolysis
ELECTRICITE DE FRANCE(RAPL) 06.03.80-FR-005045
E17 J03 X25 (23.09.81) C07c-31/18 C25b-03/04

04.03.81 as 106831 (478RH)

Acid solns. of sugars (I) are reduced electrochemically to the corresp. polyols (II) as follows: (a) the acid soln. of (I) is neutralised by electrodialysis; then (b) (I) is reduced to (II) by electrolysis in a separate cell.

Method is inexpensive and uses less energy than known processes, and affords (II) in greater efficiency.

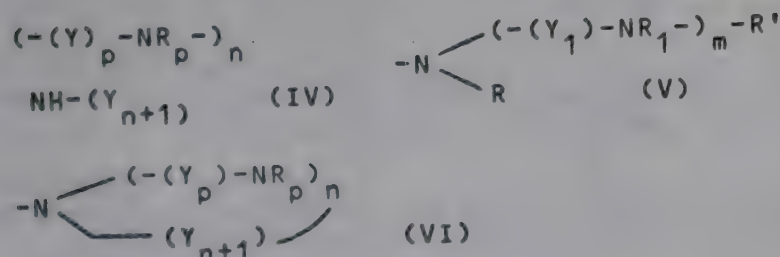
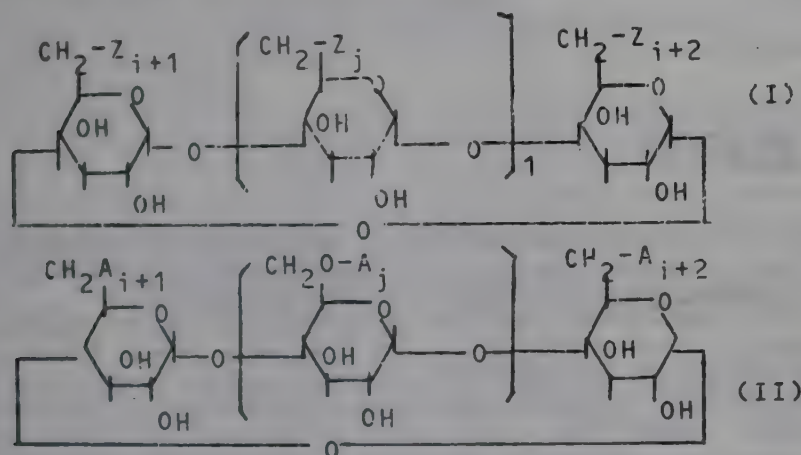
In step (a), pref. electrolytic cell suitably has a series of ion exchange membranes (anionic and cationic exchange membranes alternating). The anode and cathode (pref. both ruthenated Ti) are located on either side of the series of membranes. In (b) electrolytic cell is pref. divided into compartments by a single anionic membrane. Cathode may have a low H₂ overpotential, pref. an Ni base (e.g. Ni black, Raney Ni, or electrodes resulting from the chemical attack of deposits of Ni/Zn alloys). The anode is pref. ruthenated Ti. (4pp)

MITK ★ D17 70757 D/39 ★ J5 6100-639
 Purifying high specific gravity, high viscosity liq. - e.g. aq. soln. of sugar or polymer, using ion exchange resin, and applying upward liquor passing and countercurrent regeneration
MITSU TOATSU CHEM INC 16.01.80-JP-002648
A35 J01 (A91) (12.08.81) B01j-47/02 C13d-03/14 C13k-01/08
 16.01.80 as 002648 (34PW)
 Liquor having higher s.g. and viscosity than that of water, e.g. aq. soln. of sucrose, fructose, glycoside and polymers etc. is purified using ion exchange resin, e.g. copolymer of styrene-divinylbenzene and copolymer of acrylic acid-divinylbenzene etc. by upward liquor-passing and countercurrent-regenerating process.

The improvement comprises carrying-out the purification in an ion exchange tower having back-washing space of greater than 75% of the height of the resin layer while forming greater than 80% of a dense layer part, so that the liquor is highly purified without lowering of ion exchange efficiency due to nonuniformity in contact between the liquor and the ion exchange resin in fluidised layer part. The amt. of back-washing water is reduced and time required for back-washing in the regeneration is shortened. (5pp)

IDEK D17 91860 A/51 = J8 1037-241
 Cyclodextrin derivs. prodn. - by reacting sulphonyl cyclodextrin cpd. with straight chained or cyclic poly:alkylene poly:amine
IDEMITSU IND KK 22.02.77-JP-017727
A11 (29.08.81) *J53102-985 C08b-37/16 + A61k-47 C07b-21
 22.02.77 as 17727 (136AS)

Cyclodextrin derivs. of formula (I) are produced by reacting the cpds. of formula (II) with the cpds. of formula HR-N-(Y1)-NR1-m-R' (III) or (IV). In the formulae i is 4,5, or 6; j varies from 1,2... to i; A1, A2... A1+2 are H, p-toluenesulphonyl, mesitylenesulphonyl, alpha-naphthalene sulphonyl or p-bromobenzenesulphonyl (excluding the case where all of A1, A2... A1+2 are H). The reaction is performed in solvents (e.g. pyridine, propyl glycol) at 20-80 deg. C for 5 minutes for 24 hrs. (10pp)



are H); Z1, Z2...Zi+2 are OH, (V) or (VI) (excluding the case where all of Z1, Z2...Zi+2 are -OH); m, n: 2,3...10; 1 varies from 1,2... to m; p varies from 1,2... to n; (Y1), (Y2) are each 1-6C alkylene; R, R', R1, R2 are each H or alkyl gps.

(II) are obtd. by the reaction of alpha, beta or gamma cyclodextrin with aromatic sulphonyl halides (e.g. p-toluenesulphonyl chloride, mesitylenesulphonyl chloride). The polyalkylenepolyamines (III) include, e.g. diethylenetriamine, tetraethylenepentamine. The cyclic polyalkylenepolyamine (IV) include, e.g. 1,4,7,10-tetraaza cyclododecane, 1,4,7,10-tetraaza cyclotridecane.

STBR D17 40209 D/23 = US 4288-54
 Glucose isomerisation to fructose with immobilised enzyme after treatment with ion exchanger in sulphite form
STANDARD BRANDS INC 15.11.79-US-094520
E13 (D16) (08.09.81) *BE-886-199 C12p-19/24
 15.11.79 as 094520 (931NS)

Glucose is enzymatically isomerised in an ion exchange refined glucose-contg. liquor to fructose by treating with an ion exchange material in the bisulphite/sulphide form; and contacting the treated liquid with immobilised glucose isomerase under isomerising conditions to convert part of the glucose to fructose. Pref. the ion exchange resin is a weak- or storage-base anion exchange resin in the bisulphite/sulphite form. The pH of the liquor treated is 1.0-8.0 (pref. 3.5-6.5), and the temp. of the treatment 25-70 deg. C (pref. 50-65 deg. C).

The process increases the stability or effective life of the enzyme used. (6pp)

COKE ★ D17 71682 D/39 ★ US 4288-551
 Purification of sugar syrups by prim. flock flotation - then decomposition of hydrogen peroxide with catalase to form oxygen bubbles, then sec. flock flotation
COCA-COLA CO 10.03.80-US-128683
(08.09.81) C12p-03 C13d-03
 10.03.80 as 128683 (478BZ)

Impure sugar (I) syrups are purified as follows: (a) the (I) syrup is kept at not above 73 deg. C. but not below the temp. at which prim. floc formation would proceed to completion; (b) syrup is mixed with not less than 25 ppm by vol. H2O2 and a prim. floc-forming chemical couple (amt. to form a prim. floc which captures most of the impurities in the impure syrup); (c) catalase (II) is added in an amt. sufficient to cause rapid decompsn. of the H2O2 (with rapid generation of O2 bubbles); (d) a polyelectrolyte (III) is dispersed in the syrup with agitation (within 180 sec. of mixing in step (c)) to form a sec. floc which contains enough entrapped O2 bubbles to cause flotation of the floc; (e) the agitation is stopped within 180 sec. (f) flotation of the sec. floc proceeds to afford a purified (I) syrup; and (g) the purified (I) syrup is sepd. from the sec. floc.

The floc flotation process is very rapid, avoids the capital expense and power costs associated with conventional aeration, and allows the use of O2 bubbles generated from H2O2 and (II). (15pp)

See Also

D16 CA 1106302	D16 GB 1598686	D16 GB 1598687
D16 GB 1598688	D16 J5 6099795	D16 US 4288619

D18: SKINS; HIDES; LEATHER; TOBACCO

FRAT/ ★ D18 69930 D/39 ★ DD-149-204
 Chrome leather sludge utilisation by oxidising gas plasma treatment - giving condensed prod. contg. chromium or chromium carbide

FRATZSCHER W 15.02.80-DD-219074
E31 M25 (01.07.81) C01g-37 C22b-34/32
 15.02.80 as 219074 (016AS)

Utilisation of chrome leather sludge involves contacting the sludge with a plasma gas, with supply of electrical energy, so that condensed prod. pref. contg. Cr and/or Cr carbide are formed. Pref. the plasma gas is O2 and/or oxidising gases contg. oxygen. The type and quality of the prod. are controlled as required by varying the ratio of sludge and gaseous oxidant. The prod. (Cr) is obtd. in finely disperse form. The energy produced in the process is utilised for preheating the starting materials.

Process is useful in light industry or the chemical and metallurgical industries and gives high grade prodn. (6pp)

FARB D18 67880 C/39 = EP G015-478
 Spray-dried age-resistant chromium tanning agent - contg. formate and increased sulphate content to improve resistance to ageing

BAYER AG 07.03.79-DE-908967
(16.09.81) *DE2908-967 C14c-03/06

20.02.80 as 100936 (068NS) (G) No-Citns. E(DE GB IT)

Powdered, spray dried, chrome tanning agents contain 1.8 to 2.6 moles formate per mole Cr2O3, at least 1.8 (1.8 to 2.8) moles SO3 per mole Cr2O3 and a basicity of at least 42%, pref. about 50%.

The tanning agents retain their solubility even after long storage. (3pp)

BRTA ★ D18 70114 D/39 ★EP--35-683
Aromatising agent mfr. from chlorophyll free alcohol tobacco extract - by photochemical oxidn., useful as additive to improve smoking flavour

BATCIGARETTEN-FAB 08.03.80-DE-009031
P15 (16.09.81) A231-01/22 A24b-15/24 C11b-09/02
23.02.81 as 101285 (1251NS) (G) GB1316172 DE2114086 FR1206210 GB2020538 2.Jnl.Ref E(BE CH FR GB LI NL SE)
Prod'n. of aromatising agents comprises subjecting an alcoholic carotenoid-contg. extract of green tobacco plants (or plant parts) and/or other xanthophyll-contg. plant extracts in alcohol soln. to oxidn. with oxygen while irradiating with UV light. The chlorophyll and opt. also the waxy diterpenes present on the surface of tobacco plants, are removed from the extract before treatment.

Irradiation is pref. with light of wavelength 220-580 nm and at room temp. for 1-240 (10-24) hr., either in presence or absence of a sensitiser. Surface wax is pref. removed by washing with dichloromethane. A pref. sensitiser is Rose Bengal but esp. good prods. are obtd. when no sensitiser is used, i.e. oxidn. is then by a free-radical mechanism.

The irradiated extracts are used as additives for processed tobacco to improve the smoking flavour. Extracts of *Nicotinia* species not suitable for making smoking tobacco can be used. (12pp)

BRTA ★ D18 70115 D/39 ★EP--35-684
Aromatising agent prodn. from alcoholic tobacco di:terpene extract - by photochemical oxidn. in absence of sensitiser, used to improve smoking flavour

BATCIGARETTEN-FAB 08.03.80-DE-009032
P15 (16.09.81) A231-01/22 A24b-15/24 C11b-09/02
23.02.81 as 101286 (1251KB) (G) GB2020538 DE2918920 US2586701 1.Jnl.Ref E(BE CH FR GB LI NL SE)
Prod'n. of aromatising agents comprises irradiating with UV light in the presence of oxygen, but in the absence of a sensitiser, an alcoholic, diterpene-contg. extract obtd. from the surface resin of fresh tobacco plants (or plant parts) or from the gum prod. by tobacco flowers.

Pref. the irradiation is with light of wavelength 220-580 nm and treatment is at room temp. for 1-240 (6-24) hr. The treated extract can be applied to tobacco directly or after fractionation.

The agents are useful as additives for tobacco to improve smoking flavour, and are superior to similar compsns. obtd. by oxidn. in presence of a sensitiser. Extracts from *Nicotinia* species not suitable for making smoking tobacco can be used. (9pp)

MONT D18 47772 A/27 = GB 1598-709
Skin tanning prod. contg. acid, aluminium salts and complexing agent - used to replace part of the chromium in normal tanning

MONTEDISON SPA 23.02.77-IT-020589
E33 (23.09.81) *BE-862-563 C14c-03/04
30.12.77 as 054347 (924MR)
Bath for tanning hides, comprises an aq. acid mixt. contg. a neutral or basic Al chloride and/or sulphate and a polycarboxylic acid complexing agent for the Al, together with a chrome tanning agent in an amt. not exceeding 0.7 wt.% of the pelt wt. of the hides to be tanned.

Pref. polycarboxylic acid is citric acid. Pref. pH of the bath is 3.5-4.5 (3.9-4.3). Pref. Al content of the soln. (as Al₂O₃) is 3-11 wt.%. Use of the Al-organic acid compsn. results in a redn. in the amt. of Cr required, resulting in a finish similar to or better than those

obtd. in a normal Cr tanning operation.

The tannings have good resistance to water and environmental pollution is avoided. (4pp)

BALF- ★ D18 70457 D/39 ★GB 2071-83
Vacuum drying appts. - for heat sensitive material using microwave heating

BALFOUR H & CO LTD 05.02.80-GB-003840
J08 X25 Q76 (23.09.81) F26b-23/08
05.02.80 as 003840 (50AT)
Drying appts. has an elongate vacuum chamber having at least two separate drying sections sepd. by a partition. A conveyor is provided for passage of material from an inlet to an outlet of the chamber. The second section of the chamber has a microwave drying device including a pair of microwave input units arranged in opposed relationship on either side of the elongate chamber. Used for drying heat sensitive material and foodstuffs. Provides a more efficient drying appts. than prior art. (8pp)

MITP D18 67961 W/41 = J8 1037-254
Ethylene-vinyl acetate copolymer leather substitutes - contg. chrome leather fibres

MITSUBISHI PETROCH KK 13.08.73-JP-090738
A17 (A82) (29.08.81) *J50039-364 + C08j-09/06 D06n-03/04
13.08.73 as 090738 (AS)
Compsns. of 100 pts. 75-90:10-25 ethylene-vinyl acetate copolymer (I), 10-60 pts. 0.2-2 mm. chrome leather fibres, crosslinking agents, and blowing agents are used to mfr. leather substitutes.

In an example, 85:15 (I) 100, 1 mm chrome leather fibres 50, azodicarbonamide 7.5, 90% dicumyl peroxide 1.2, stearic acid 1, kraft pulp 20, and less than 100 mesh SiO₂ 30 pts. were rolled to give a 2 mm sheet, which was heat-pressed 15-20 mins. at 40 kg./cm² (steam pressure 8 kg/cm²) to give a foamed sheet having a density 0.1. The sheet was sliced to give 2 mm. sheets which had moisture permeation 120-50 g./m²-mm.-24 hrs. at 40 deg.C, compared with 20-30 g./m²-mm.-24 hrs. for a similar sheet contg. CaCO₃ in place of leather fibres. (J50039364) (3pp)

CLGE ★ D18 71666 D/39 ★US 4288-498
Thermal insulation material prodn. from leather scrap - by shredding and case hardening to reduce hygroscopicity

COLLAGEN CORP 06.05.80-US-147462
P73 (08.09.81) B32b-09/02 C14b-01/58
06.05.80 as 147462 (955PW)
Pipe insulation material is claimed comprising shredded case hardened tanned leather fibres having reduced hygroscopicity and being capable of taking up 12 wt.% or less moisture during 8 hrs. exposure to an atmosphere of 100% humidity. Tanned leather scrap is converted into thermal insulation by shredding it into fibres without damaging the structural integrity of the fibres, and case hardening the fibres by drying, pref. to below 5%, esp. below 2% moisture, to give fibres having the above properties. The prod. does not absorb moisture. It has a thermal resistance intermediate between fibre glass and styrofoam, and smoulders out does not burn when ignited. It has good sound insulation props. (7pp)

See Also

D16 US 4288556 D23 J8 1037784

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

BRIM ★ D21 69890 D/39 ★CA 1106-329
Low fogging aerosol antiperspirant - using conc. compsn. in container with metering valve

BRISTOL MYERS CO 26.03.79-US-023808
A96 E17 Q34 (04.08.81) B65d-83/14
18.06.79 as 330015 (955PW)
An aerosol antiperspirant compsn. contains 20-50 wt.% antiperspirant ingredient, 20-50 wt.% oily material, and 20-50 wt.% propellant. It is dispersed from a container which has a metering valve of such dimensions as to deliver the compsn. in metered doses contg. 40-80 mg. of active ingredient. The oily component is e.g. polyoxyalkylene glycol or ether. The concn. of active component is high, so can volume is used

efficiently, but clogging of the nozzle is avoided. The spray is dry, warm and gentle, and a large cloud of fine particles which can be inhaled is not formed, even when hydrocarbon propellants are used. (23pp)

DEGS ★ D21 70058 D/39 ★DE 3009-650
Gold-free cobalt-chromium-palladium alloy - esp. for dental uses, having good adhesion to fired ceramic coatings

DEGUSSA AG 13.03.80-DE-009650
M26 (17.09.81) C22c-05/04 C22c-19/07
13.03.80 as 009650 (1501RH)
A gold-free alloy, for receiving fired-on ceramic coatings, esp. for dental applications, has the compsn. (by wt.) 1-70 (pref. 3-40)% Pd,

D 21: DENTAL; TOILET PREPARATIONS-p. 34

0.1-35 (pref. 3-25)% Cr, balance Co. The alloy pref. also contains up to 1% B, up to 20% Mo and/or W and up to 8% Sc, Y, La and/or other rare earths.

The alloy contains no toxic components, is corrosion resistant, has a relatively low m.pt., does not discolour fired ceramic coatings and ensures good adhesion of such coatings.

The higher Pd content alloys pref. also contain up to 5% Al, Si, Sn, In and/or Ga. The pref. alloy has the compsn. 25-35% Pd, 5-15% Cr, 5-15% Mo and/or W, 2-6% Ce, 0.2-0.8% B, balance Co. (10pp)

LIOY D21 47313 X/25 = DS 2552-337
Low mol poly-alkenes using poly-alcohol ester - and aluminium halide as catalyst, giving lubricants, hydraulic fluids, cosmetic bases and fibre dressings

LION CORP 03.12.74-JP-138702

A17 F06 H07 (17.09.81) *NL7514-035 C08f-10/14

21.11.75 as 552337 (481PW)

Liq. polyolefins (I) are produced by polymerising olefins (contg. 6 or more C) in the presence of a mixt. of an ester (II) and an Al halide (III).

(II) used is a deriv. of a polyhydric alcohol (IV) produced by replacing the H atoms of all the OH gps. of (IV) by either a) acyl gps. or b) acyl gps. and alkyl gps. each contg. 1-20C, and 1.1-2.8 mol. of (III) is used based on an ester cpd. of the deriv. of (IV).

(I) having differing mean mol. wts. can be obtd. in high yield. DS (6pp)

WELA D21 45814 B/25 = EP G002-506
Aq. hair conditioner and shampoo compsns. - contain water-soluble chitosan salt esp. with organic acid as conditioner

WELLA AG 09.12.77-DE-754796

A96 (A11) (16.09.81) *DE2754-796 A61k-07/06

08.12.78 as 101615 (068NS) (G) FR2137684 GB-458825 GB-458839 US3632754 E(DE FR GB IT NL)

An aq. prepn. for washing and treating hair contains, in addn. to usual ingredients, e.g. quaternary ammonium salts, fatty alcohols, fatty acid esters or paraffin hydrocarbons, a water soluble chitosan salt, e.g. of formic, acetic or lactic acid. Chitosan is a high polymer amine obtd. by deacetylating chitin.

The aq. prepn. is pref. left on the hair for a few minutes and then washed away leaving the hair smooth with more body. (7pp)

BISE-★ D21 70147 D/39 ★EP --35-742
Homo-citric acid oligo:riboside derivs. - useful for inhibiting dextran-sucrase and preventing dental caries

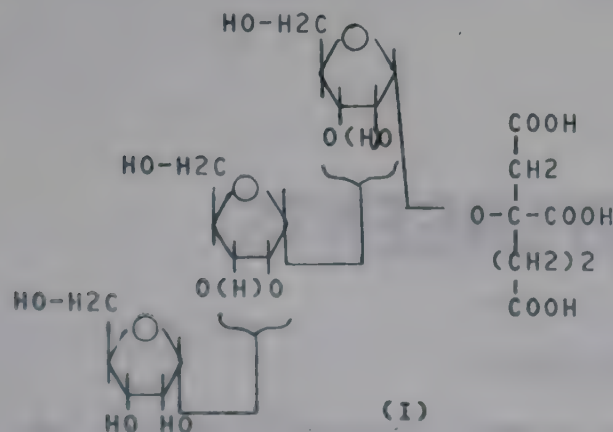
BISEIBUTSU KAGAKU 08.03.80-JP-029690

B03 (16.09.81) C07h-15/04 C12p-19/44

04.03.81 as 101543 (1248AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Homocitric acid oligoriboside deriv. of formula (I) and its salts are new. Each glycosidic linkage between ribose moieties is a ribosyl-(1 to 2)-ribosyl or ribosyl-(1 to 3)-ribosyl bond.

(I) strongly inhibit dextran-sucrase and so are useful as medicinal agents and esp. for the prevention of dental caries by preventing formation of dextran from sucrose, the dextran normally aiding adherence of bacteria to teeth, (I) may be included in toothpastes, soft drinks, chewing gum, foodstuffs, etc. (21pp)



PROC ★ D21 70217 D/39 ★EP --35-800
Hair conditioning emulsion contg. soluble, nonionic polymer - as thickener, and volatile liq. and cationic conditioners

PROCTER & GAMBLE CO 17.02.81-US-234297 (10.03.80-US-128436)

A96 (16.09.81) A61k-07/06

09.03.81 as 300971 (+22.12.80-US-216376) (1251KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

hydrocarbon and/or silicone conditioner, (b) 0.1-8 (0.5-6)% of a nonionic, water-soluble polymer (I) with viscosity over 200 poise at a shear of 0.01 reciprocal secs. and viscosity below 9 poise at a shear of 500 reciprocal secs.; (c) 0.05-4 (0.1-2)% cationic conditioner (II) and (d) water.

Claimed (I) are polyoxyethylene, (hydroxypropyl) guar gum, methyl (hydroxypropyl) cellulose, locust bean gum, hydroxyethyl or hydroxypropyl cellulose, starch, hydroxyethyl amylase and/or starch amylase. Pref. (a) are (do) decane, tridecane, tetradecane or their mixts., or cyclic silicones with 4 or 5 dimethylsiloxane gps.

These emulsions leave no undesirable residues on the hair. (18pp)

PROC ★ D21 70218 D/39 ★EP --35-901
Hair conditioner contg. volatile hydrocarbon or silicone - and hydrophobic thickener, esp. polyvinyl isobutyl ether

PROCTER & GAMBLE CO 13.02.81-US-234271 (10.03.80-US-128437)

A96 (16.09.81) A61k-07/06

09.03.81 as 300971 (+22.12.80-US-216372) (1251NS) (F) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Hair conditioner comprises (a) 1-99 (2-10)% hydrocarbon and/or silicone as volatile liq. hair conditioner, and (b) up to 1 (0.005-0.5)% of a hydrophobic thickener, esp. polyvinyl isobutyl ether and/or polyvinyl ethyl ether. Specified (a) are (do)decane, tridecane, tetradecane or their mixts., or cyclic siloxanes with 4 or 5 dimethyl siloxane gps. Opt. the compsn. also contains a cationic hair conditioner.

The compsns. have superior performance (no details) compared with known compsns. contg. volatile conditioners.

Pref. (a) are the silicones and pref. (b) have mol.wt. 50000-5 million, esp. polyvinyl isobutyl ether. The compsns. also contain pref. 75-90% water and opt. usual dyes, perfumes, etc., and water-soluble thickeners such as (hydroxypropyl) guar gum. The cationic hair conditioner is e.g. ditallow dimethylammonium chloride, esp. at 0.1-2%. For use, 1-60 (2-30)g of the compsn. are applied to freshly shampooed hair, then rinsed out. (16pp)

FRAJ/★ D21 70228 D/39 ★EP --35-910
Hair compsn. to prevent loss and encourage regrowth - contains turpentine alcoholate, arnica, ginseng and a chondroitin salt or cartilage muco:polysaccharide(s)

FRAJDENRAJCH S 05.03.80-FR-004886

B05 (16.09.81) A61k-07/06

04.02.81 as 400170 (395RH) (F) No-Citns. E(BE CH DE GB IT LI NL)

Compsn. for prevention of hair loss and to encourage regrowth comprises an alcoholic soln. contg. a turpentine alcoholate, tincture of Arnica, ginseng extract and a chondroitin salt or cartilage mucopolysaccharides.

Compsn. which stimulates the blood circulation in the scalp, avoiding loss of hair and encouraging regrowth of hair in bald areas. The compsn. controls seborrhea and is non-toxic and non-irritant.

Compsn. pref. also contains tincture of cinchoma, a perfume chosen from eau de Cologne, oil of lavender and oil of lemon and D-panthenol. The alcoholic excipient is usually 65-75 deg. ethanol. The ginseng is usually in the form of a glycolic extract contg. 1% saponins or an aq. alcoholic extract contg. 5-10% of saponins. The chondroitin salt is pref. the sulphate. The compsn. may also contain biotin (or vitamin H), tocopherol (or vitamin E), cystine, cysteine or an extract or tincture of cress. (7pp)

UNIL ★ D21 70314 D/39 ★GB 1598-567
Hair conditioner contg. volatile silicone - and water soluble or dispersible fluorinated surfactant

UNILEVER NV 18.04.77-GB-015968

A96 E19 (A26) (23.09.81) A61k-07/06

18.04.78 as ----- (1302PW)

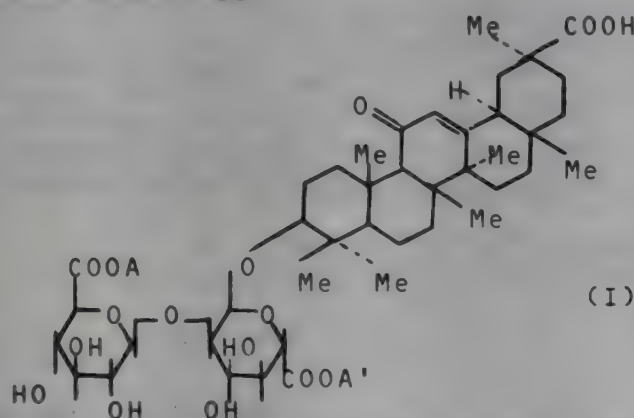
Hair conditioner contains a volatile silicone of boiling point 99-265 deg.C and a water soluble or dispersible fluorinated surfactant. The surfactant has the formula RFX, RFR'X, RFArX, RFR'(C2H4O)nX (I) where n=0-6, RFSO2NR2, RFSO2NR'X, RFSO2NR'R'N+R2R'X, RFSO2NR'R'NR2, RFSO2NR'R'NR3Y-, RFSO2NR'R' (C2H4O)nOH where n=0-16, RFSO2NR(C2H4O)nH where n=0-10, RFCONRR'NR2, RFCONRR'N+R3Y-, RFCONRR'N+R2R'X, (RFR')2X, RFR'S(CH2)nX or RFR'OCO(CH2)nCH3 where n=1-20 or a glycerol triester of RFR'OCO-. RF is a 6-22C wholly or partly fluorine substd. alkyl or alkenyl gp. R is H or 1-7C alkyl. R' is 1-7C alkylene. Ar is a mono- or di-nuclear aromatic residue. X is a carboxylic, phosphoric or sulphonic acid, amide, ester or salt gp. or an OH gp. Y is an anion.

The conditioner gives ease of wet combing and leaves no fatty residues and makes the hair surface grease repellent. (8pp)

KANE ★ D21 70354 D/39 ★ GB 2071-494
table, clear, non-gelling liq. skin cosmetic compsn. - comprising water, oil substance (e.g. perfume, hormone) and 18-alpha-glycyrrhizin cpd. as solubilising agent

KANEBO KK(MAZN) 02.10.80-JP-138512 (08.03.80-JP-029608)
E13 (23.09.81) A61k-07/48
03.03.81 as 008597 (914AT)

A clear liq. skin cosmetic compsn. consists of a solubilising agent, an oily substance and water, where the solubilising agent is one or more 18-alpha-glycyrrhizin of formula (I), or a mixt. of 10-98 mole% (I) and 2-70 mole% of a corresp. 18-beta-glycyrrhizin (II). A and A' are H, Na, K or NH₄. (I) or the (I)/(II) mixt., dissolves rapidly in water to give a clear soln. which is not subject to viscosity build-up or gelation even if its pH value is in the acidic range (c.f. prior art use of (II) alone). Oily substances can be dissolved in the resulting soln. without the need to use a solubilising assistant. The resulting compsn. has good fluidity and is easy to apply to the skin surface to provide beneficial cosmetic or medicinal effects while giving a non-irritating, non-greasy, smooth feeling. The compsn. may be a cleansing lotion, acidic skin conditioning lotion, astringent lotion, after-shave lotion, sunscreen lotion, calamine lotion, aq. make-up base, antiphlogistic lotion (I and II exert an antiphlogistic action) or a lotion for applying oil-soluble medicines such as vitamins or steroid hormones. (16pp)



LOREAL ★ D21 70355 D/39 ★ GB 2071-495
Two/phase compsn. for skin or hair - contg. oily phase, with aq. phase contg. dissolved cationic polymer(s)

L'OREAL SA 18.03.80-FR-005985
A96 (23.09.81) A61k-07/06

17.03.81 as 108307 (478RP)

Two-phase liq. compsn. for application to skin or hair consists of (a) an oily phase; and (b) an aq. phase contg. 1 or more dissolved cationic polymers (I).

The oily phase pref. contains 25-100% by vol. vegetable oil, together with 0-75% by vol. conventional animal, synthetic, and/or mineral oils, but pref. no silicone oil. Opt. the phase may also contain antioxidants, colourants, and/or perfumes, and opt. also 0-3% by wt. of a cosmetic cationic surfactant. Aq. phase is 2-50% by vol. of total compsn. contains 0.2-50% by wt. (of total compsn.) of (I), and may also contain (up to total 50% by vol. of aq. phase) of preservatives, thickeners, colourants, and/or H₂O-soluble solvents.

The compsn. contains no detergent or foaming agent but combines the cosmetic effects of a variety of oils and (I). Compsns. are useful for the treatment of dry or sensitised hair, or dry, wrinkled or rough skin, etc. (8pp)

NISW ★ D21 70560 D/39 ★ J5 6099-405
Cosmetic contg. tomato oil - which contains linolic acid vitamin/E, does not stimulate skin

NISSHIN OIL MILLS KK 10.01.80-JP-000938
(10.08.81) A61k-07

10.01.80 as 000978 (5RH)

Cosmetic contains tomato oil. Tomato oil contains large amount of linolic acid and vitamin E and is not stimulative to skin. The cosmetic has excellent spreading properties and feel in use. Further tomato oil can be extracted from the seed of tomato and the lees which are discarded on squeezing tomato juice and have been used as the feed for cattles.

Tomato oil can be obtained by extracting whole tomato, tomato lees or tomato seed with organic such as petroleum ether, hexane, benzene, toluene, xylene, etc.,. Containing carotinoid pigments the extract is often coloured red and it can be refined and decolourised by treating it with activated clay, active carbon, etc. and steam-distilling it. Cosmetic pref. contain 3-12 wt.% tomato oil. (3pp)

TOGA- ★ D21 70561 D/39 ★ J5 6099-406
Hair dressing compsn. - contains human hair pulverised at its brittle temp. and opt. keratin extract

TOHO GAS KK(ICH-OSAG-) 11.01.80-JP-002341
(10.08.81) A61k-07/06

11.01.80 as 002341 (5BZ)

Compsn. of either (a) the human hair pulverised in the atmos. of below -100 deg.C or (b) the keratin extracted from the human hair powder is used in hair-dressing agent.

Hair-dressing compsn. shows good humidity-holding effect and good revivifying effect on hair and makes hair soft, emollient, elastic and glossy.

The proteins obtd. from animals such as collagen, gelatin, keratin, that are combined in hair cosmetics often have caused allergies. Human hair pulverised at below its brittle temp. is excellent for hair-dressing compsn. The human hair powder has the similar structure as cortex fibre cells inside of human hair and by spreading it on hair shows revivifying effect on the hair damaged by cold-waving, hair dye, etc. (5pp)

NIPQ ★ D21 70712 D/39 ★ J5 6100-384
Teeth brushing time indicating aid - consists of compsn. which contains component which has reversible colour change on oxidn.-redn.

DAINIPPON PRINTING KK 16.01.80-JP-002651

E24 (12.08.81) A231-01 C09k-03 G04f-13

16.01.80 as 002651 (50DH)

A composition having the function of displaying passed time which comprises containing a colouring material which changes reversibly its colour by oxidation-reduction reaction (e.g. Safranin T, phenosafranin, methylene blue, thiazine dye, etc.) and reducing substance (e.g. substance capable of reducing the colouring material, such as glucose, ascorbic acid, sodium hydrosulphite, etc.) as essential components. The compsn. is used in the form of powder, tablet, printed form, etc. The amount of reducing agent used is pref. 0.1-100 wt. pts. per 1 wt.pt. of colouring material.

As the reduced colouring material exhibiting a reduced colour is easily oxidised by oxygen in the air to return the original oxidised colour and the rate of returning the original oxidised colour differs depending on the oxidation-reduction potential of each colouring material, the lapsed time can be simply and visibly judged by a distinct colour change of the compsn. When the compsn. is mixed into tooth paste, the time of brushing teeth with the paste can be easily seen from the colour change of the paste. (3pp)

KANE- ★ D21 70770 D/39 ★ J5 6100-709
Photochromic nail varnish - contg. film-forming agent and spiro-pyran cpd

KANEBO KESHOHIN KK(NIKA-) 16.01.80-JP-003823

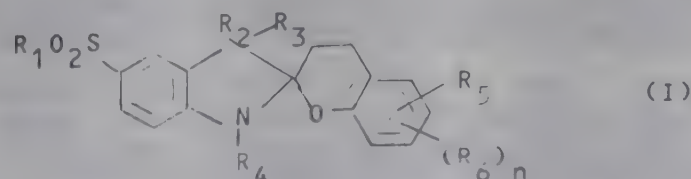
A96 E01 (12.08.81) A61k-07/04

16.01.80 as 003823 (5WB)

Nail varnish contains (a) film-forming agent and (b) spiro-pyran cpd. (I) or photochromic material contg. (I) as major ingredient.

R1 is alkyl. R2 and R3 are alkyl, hydroxyalkyl, alkoxyalkyl or cycloalkyl formed from R2 and R3 together. R4 is alkyl. R5 and R6 are H, alkyl, alkoxyalkyl, dialkylaminomethyl, nitro, halogen or alkoxy. Proviso is that at least one of R5 and R6 should be nitro. n is 1-2.

The varnish is extremely stable and does not discolour nails. (6pp)



GCSH- D21 61075 A/34 = J8 1037-184
High strength dental gypsum - comprises alpha-calcined gypsum, water-soluble triazine-series high condensate and water-soluble inorganic magnesium salt

SHIKAGCKO GYO KK 28.12.76-JP-157383

A96 E33 P32 (A21 A23) (29.08.81) *J53081-525 + A61k-06/10
C04b-13/14

28.12.76 as 157383 (170AT)

The gypsum is composed of 100 pts.wt. alpha-calcined gypsum, 0.1-10 pts.wt. water-soluble triazine-series high condensate and 0.01-3 pts.wt. water-soluble inorganic magnesium salt. The strength of the hardened body is heightened 30-50% compared to that of the body contg. no triazine-series high condensate. Smooth surface of hardened body is obtd. by the addn. of water-soluble inorganic magnesium salt.

The condensate which improves the surface wettability of

calcined gypsum allowing amt. of mixing water can be decreased to 17-20 cc from 24 cc on 100 g of calcined gypsum by the addn. of 0.1-2 pts.wt. to 100 pts.wt. calcined gypsum is e.g. hydroxynaphtholsulphuric acid melamine formaldehyde condensate, anthraquinonesulphonic acid melamine formaldehyde condensate, etc. The inorganic magnesium salt which improves the smoothness of the surface of hardened body (i.e. the roughness of surface is 7-9 microns compared to 18-20 microns) is e.g. basic magnesium carbonate, $MgCl_2 \cdot 6H_2O$, $MgSO_4 \cdot 7H_2O$, $MgSO_4$, $Mg(OH)_2$, MgO , MgF_2 , $MgBr_2$, MgI_2 , MgS , $Mg(NO_3)_2 \cdot 6H_2O$, magnesium pyrophosphate, magnesium metaphosphate, etc. (J53081525) (4pp)

ANVR D21 38450 A/22 = SU-793-383
Alpha-amino acid prodn. from amino nitrile - by single stage hydrolysis in presence of carbonyl catalyst

AGENCE NAT VALORISATION 03.12.76-FR-036520
B05 C03 E19 (D13 D24) (30.12.80) *BE-861-121 C07c-101/04
02.12.77 as 548904 (GW)

Prepn. of alpha-amino acids (I) comprises catalytic hydrolysis of an alpha-aminonitrile (II) or its salts, in aq. soln. of more than 1 carbonyl deriv. (III) as catalyst in the presence of OH ions. The concn. of OH ions is approx. equimolar to that of (II), and after reaction free (I) is extracted.

Pref. (III) is 0.1-2, esp. 0.1-1 mole per mole (II) and the min. amt. of water is 1 mole per mole (II). Pref. the soln. is heated to 80 deg.C. (II) are esp. of formula $RCH(NH_2)CN$. (R is H, or opt. branched 1-12C hydrocarbyl opt. contg. at least 1 heteroatom such as S, and opt. substd. by at least 1 OH, NH_2 , $COOH$, phenyl, hydroxyphenyl, carboxamido, indolyl, iminazyl, or guanidinyl, pref. at the end of then chain, R can also form with the alpha-N, a satd. heterocycle which can be substd. e.g. by OH).

(I) are used in human and veterinary medicine, in nutrition and in soaps and cosmetics. Hydrolysis is in a single stage with no need to isolate the intermediate alpha-amino amide. (III) and the NH_3 generated during hydrolysis can be recycled and conversions are almost quantitative. In an example, alanine was prepd. in 98.6% yield by hydrolysing alpha-amino propionitrile hydrochloride in presence of acetone. Bul.48/30.12.80. (2pp)

FARH D21 79374 Y/45 #SU-793-388
(2)-acyloxy-alkane-(1)-sulphonates prepn. - by acylation of corresp. hydroxy cpd., giving pure product suitable for dental use
HOECHST AG 05.05.76-DE-619846 (02.09.77-SU-516986)
E12 (30.12.80) *BE-854-300 C07c-139 + C11d-03/34
02.09.77 as 516986 (1511VE)

Cpds. with high surface activity, used in compsns. for tooth and mouth cleansing and cosmetics comprises 2-(acyloxy)1-alkane sulphonates of formula (I)

$R_1CH(O_2CR)CHSO_3M$ $R'CH(O_2CR)CH_2SO_3M$ (I)
(where R is 6-16C alkyl, R' is 1-17C alkyl, or Ph, M is monovalent metal). They are prepd. by treating $RCHCH_2SO_3M$ (III) with $RCOX$ (II) (where X is halogen, or 2-18C acyloxy) in carboxylic acid media.

When (II) with X is halogen was used, the reaction proceeded at b.p., when (II) with X is 2-18C acyloxy group was used, the temp. of the reaction was raised to 100-150 deg.C.

Typically 106g of 1,2-epoxytetradecane in 150 ml EtOH was treated with 151 g Na_2SO_3 in 350 ml H_2O , in the autoclave at 130-140 deg.C for 4 h to give 150g (95%) 2-hydroxytetradecane sodium sulphonate.

158g 2-hydroxy tetradecane sodium sulphonate, suspended in 400 ml AcOH and 51g Ac_2O was refluxed for 4 h and gave 159g 2-acetoxytetradecane sodium sulphonate. Bul.48/30.12.80. (3pp)

MINN ★ D21 71557 D/39 ★ US 4288-221
Polishable one- or two-part dental filling compsn. - comprises curable polymerisable resin contg. acrylic monomer(s) and finely divided organic filler, esp. of polyester or polyamide
MINNESOTA MINING CO 28.01.80-US-115741
A96 P32 (A12 A14 A23) (08.09.81) A61c-13/08 C081-77
28.01.80 as 115741 (960KB)

Composite dental restorative compsn. comprises a blend of (a) a free radical polymerisable resin comprising at least one acrylic monomer and (b) finely divided organic filler particles of Izod milled notch strength of at least 1J/cm and flexural strength of at least 34 MPa. The compsn. cures to a direct filling material in combination with a free radical catalyst.

Two part dental restorative compsn. comprises (1) a blend of a free radical polymerisable resin comprising at least one acrylic monomer, a free radical catalyst and the filler particles and (2) a blend of the resin, an aromatic amine accelerator and the filler particles. On mixing the compsn. cures to a direct filling material.

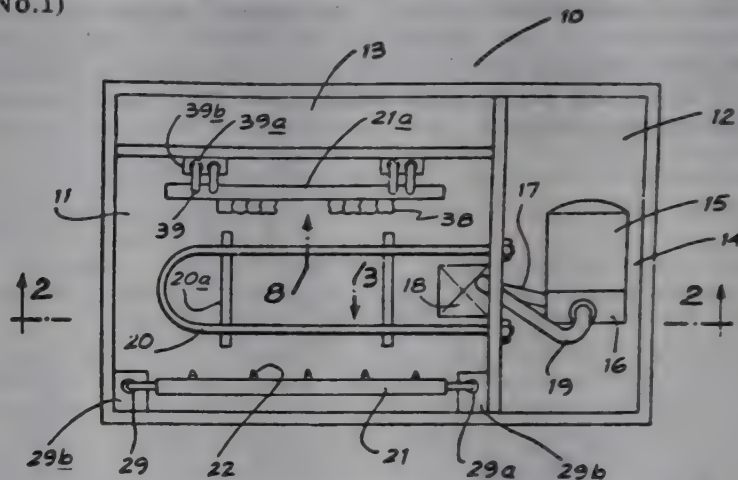
The compsn. has a abrasion resistant, resilient surface which has greater durability than those loaded with inorganic materials and has good polishability. (5pp)

ROGE/ ★ D21 71593 D/39 ★ US 4288-298
Dental crowns etc., made by electrodeposition - using appts. accommodating variable number of workpieces but providing controlled rate of deposition and ion replacement

ROGERS OW 14.03.79-AU-008025
M11 S05 X25 (08.09.81) C25d-01 C25d-05 C25d-17/06
11.03.80 as 129293 (1044DH)

Electrodeposition appts. comprises an electrolyte container housing the opposed composite electrodes. A first electrode has a plastic panel mounting metal baskets for contg. metal to be electrodeposited. A second electrode has a metal plate sandwiched between two plastics plates with the metal plate having screw threaded bores for receiving screw-threaded projections on substrates to be coated.

Useful in the electroplating of a metallic substrate or electroforming hollow metallic objects, e.g. mfrg. dental implants or dental crowns. When less than a max. number of substrates are mounted onto the second electrode, the unoccupied apertures are plugged with non-conductive material to prevent wasteful deposition of material onto the electrode. (9pp Dwg.No.1)



UNIL D21 69929 B/39 = US 4288-341
Deodorant non-germicidal toilet soap tablet - contg. soap mixt. free fatty acid, electrolyte and specified deodorant power

UNILEVER NV 16.05.78-GB-019841 (20.03.78-GB-010969)
E19 (08.09.81) *BE-874-977 C11d-09/44
15.08.78 as 933943 (931JB)

A deodorant toilet soap bar comprises 0.5-99.9 wt.% of a soap mixt., 0-15 wt.% of 6-18C straight chain fatty acids, and 0.1-10 wt.% of a deodorant compsn. contg. 45-100 wt.% of an active component. This component has a lipoxidase-inhibiting capacity of 50% or more or a Radult variance ratio of 1.1 or more.

The active components comprise (i) phenols, (ii) essential oils, extracts, resins and synthetic oils, (iii) aldehydes and lactones, (iv) polycyclic cpds., (v) esters, and (vi) alcohols. The compsn. contains 5 or more the components (i), (ii) and (iv), and has components from 4 or more of the 6 classes, and additional components of concn. less than 0.5 wt.% of the compsn.

The compsn. used has a deodorant value of 0.5-3.5 as measured by the deodorant value test. (11pp)

MINN D21 86437 B/48 = US 4288-355
Readily mixed surgical cement for dentistry - prepd. from an aq. metal oxide e.g. zinc oxide suspension and poly(carboxylic acid) soln.

MINNESOTA MINING CO 22.05.78-US-908576
A96 G03 (A14) (08.09.81) *GB2021-123 + C08k-03/22
22.05.78 as 908576 (937KB)

Surgical cement compsn. is prepared by forming a mixt. of aq. suspension of metal oxide powder, pref. ZnO or polyvalent cation contg. glass, in an aq. soln. of polycarboxylic acid. The powder is 30-60 vol.% of the suspension; the polycarboxylic acid is 55-80 wt.% to the soln. The wt. ratio of metal oxide powder suspension to aq. polycarboxylic acid is 0.5/1-8/1.

Pref. the polycarboxylic acid is chosen from poly(meth)acrylic acid or polymers derived from alpha, beta dicarboxylic acid or their copolymers having mole wt. of 2000-20000.

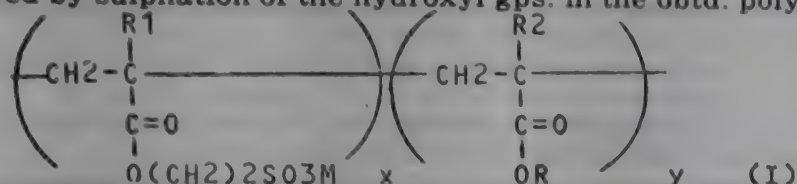
The compsn. is used pref. in paste form and can be dispensed from syringe and used for dental applications. (6pp)

GILL ★ D21 71648 D/39 ★ US 4288-427
Sulphated hydroxy-ethyl:acrylate-alkyl acrylate copolymers - useful in shampoo compsns. providing conditioning effect

GILLETTE CO 21.08.79-US-068369
A96 (A14) (08.09.81) A61k-07/06
21.08.79 as 068369 (558RP)

A polymer of formula (I) is new. In (I) the molar ratio of x to y is 3:1-1:2, R is 4-18C alkyl; R1 is Me when R2 is H; R1 is H when R2 is Me; M is Na, K or triethanolamine; and the ratio of C atoms to O atoms is 1:1-1:5.

polymer and 5-25 wt.% an anionic, nonionic or ampholytic surfactant. It can provide an after-shampoo conditioning effect, giving smooth, soft, lustrous, easily combed, manageable hair. The polymer is prepd. by soln. copolymerisation of a hydroxyethyl (meth)acrylate and alkyl methacrylate (or acrylate) followed by sulphation of the hydroxyl gps. in the obtd. polymer. (5pp)



OREA D21 33462 A/19 = US 4288-433
Anti-cellulitis cosmetic compsn. - contg. thioether cpd. e.g. cysteine deriv. and xanthine deriv.

L'OREAL SA 08.11.76-LU-076148

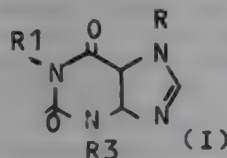
E13 (08.09.81) *BE-860-542 A61k-31/62

24.09.79 as 078513 (+ 7.11.78-US-849128) (931JB)

Cellulitis is treated by massaging the body with a therapeutic amt. of a compsn. contg. 0.1-1.5 wt.% of a thioether or an (in)organic salt of 2-benzylthioethylamine, and 0.1-2 wt.% of a xanthine deriv. of formula (I) in a suitable vehicle.

In the formula, R1 and R3 are each H, an opt. branched 1-5C alkyl, an allyl, a propynyl or cyclohexyl, such that R1 and R3 are not both H. R2 is H, Me, Et, hydroxymethyl or hydroxyethyl. The thioether is S-carboxymethyl(homo)cysteine, thiolane-3,4-diol, its S-oxide or -S-dioxide. The salt is a malate, salicylate, microtinate, tartrate or 5-amino-3-thiahexanedioate of 2-benzylthioethylamine.

The treatment is carried out once a day for 2-8 weeks by topical massage or trans-cutaneous electrophoresis. (4pp)



DENT. D21 43477 C/25 = US 4288-47
Evenly coating dental working model - by applying first catalyst before applying polymerisable mixt. contg. second catalyst
DENTAIRE IVOCLAR 07.12.78-DE-852984
A96 P32 (08.09.81) *DS2852-984 A61c-13
07.12.79 as 101985 (1376KB)
Uniform synthetic resin coating is provided on a dental cast by applying a first catalyst component onto the cast, and then applying a mixt. of polymerisable compsn. and a second catalyst component which initiates the first component to polymerise the compsn.

The first catalyst component may be applied as a soln. (6pp)

OREA D21 59139 W/36 = US 4288-622
Dialkyl aminodiphenyl amine dye compsns - for keratin fibres esp. hair, prepd. by indoaniline reduction

L'OREAL SA 22.02.74-LU-069459

A96 E24 (08.09.81) *DE2507-566 C07c-91/42 D06p-01/32

12.11.76 as 741495 Div ex 4008999 (+ 21.2.75-US-551653) (965AS)

3,2',6'-trimethyl-4-hydroxy-6-amino-4'-N,N-dimethylamino diphenylamine is new. Also claimed are 3-methyl-4-hydroxy-6-amino-4'-dimethylamino diphenylamine, 3,5-dimethyl-2-amino-4-hydroxy-4'-dimethylamino diphenylamine, and 3,5-dimethyl-4-hydroxy-2-acetylamino-4'-dimethylamino diphenylamine.

The cpds. are used to dye keratinic fibres, esp. human hair. They provide a wide range of shades of exceptional richness. They are oxidised at the interior of the keratinic fibres to give the corresp. indoanilines, which exhibit fastness and intensity of colouration. (9pp)

See Also

D23 J5 6102250 D23 SU 791736

D22: BANDAGES; DRESSINGS

BAIL/★ D22 69867 D/39 ★BE-888-776
Panty-napkin - for babies and incontinent persons esp. those whose are chair or bedridden

BAILY G 12.05.81-BE-888776

P21 (28.08.81) A41b

12.05.81 as 888777 (1359AT)

A rectangular pilch or panty-napkin may be used not only for babies, but also for handicapped or incontinent adults who are bed-ridden or chair-bound. It may be used in connection with a hygienic mattress or cushion having a hollow zone.

The pilch has glued areas between each end and the middle, joining longitudinal folds to form two places for reducing the width of the layer. The central part of the garment has a hole opening out on to an envelope of waterproof material. Lacings are provided on each lengthwise edge of the pilch, to pass around the thighs of the wearer. Adhesive tapes are provided at the waist. (7pp)

BAXT★ D22 69870 D/39 ★BE-888-786
Disposable skin dressing applicator for pre injection disinfection is mass produced as impregnated pad on fold back strip

BAXTER TRAVENOL LABS INC 15.12.80-US-216037
(15.05.80-US-150011)

B07 P34 (28.08.81) A61l

13.05.81 as 888786 (448KB)

The applicator comprises a flat backing strip of fairly rigid material e.g. a composite laminate of aluminium foil and cardboard. An absorbent pad is fixed centrally on the strip which has a fold line on each side of the pad. This allows the extending wing of backing strip on each side of the pad to be bent back away from the pad to meet the wing bent back from the other side.

Near the end of each, a transvers fold line allows the extremities of the wings to be made parallel to each other and at 90 deg. to the original plane of the backing strip. These extremities provide a thumb and finger grip at the apex of a triangular structure formed by the wings extending from the strip section which backs the pad.

The pad is pref. impregnated with a medicament, partic. a disinfectant, and covered by a tear-off cover which is sealed by its edges to the backing strip. The backing strip can be a sheet of

FARF★ D22 69914 D/39 ★DD-149-160
Air freshener based on para:di:chloro-benzene - contains urea to reduce sublimation without loss of effectiveness

CHEMIEKOMB BITTERF 18.02.80-DD-219109

E14 P34 (E16) (01.07.81) A61l-09/* C11d-07/32

18.02.80 as 219109 (016AS)

Air freshener contg. 78-82 (wt.%) p-dichlorobenzene (I) and opt. max. 1% perfume oil (II) also contains 18-22% urea. The prod. is useful as air purifier and block for use in WC basins. The (I) content is reduced without loss of effectiveness, urea retarding sublimation of (I).

In an example blocks were prepd. from (A) 44 g mixt. of 990 g (I) and 10 g (II) or (B) 42.8 g mixt. of 200 g urea, 790 g (I) and 10 g (II) and placed in a constant air stream (1000 m3/h). The addn. of urea reduced sublimation considerably, the urea residue collecting at the bottom of the packaging. The amt. remaining was (A) 33.7, (B) 36.5 g after 1 day, (A) 12.2, (B) 14.1 g after 5 days, (A) 0.2 g after 9 days and (B) 0.4 g after 11 days. (6pp)

MEDI=★ D22 69965 D/39 ★DE 2947-985
Matrix material for fixing bone fractures - consisting of a copolymer of hydrophilic and hydrophobic monomers reinforced with resorbable toxic fibres

MED TECH RES INST 28.11.79-DE-947985

A96 P31 (17.09.81) A61b-17/18 A61k-09/70 A61k-31/74

28.11.79 as 947985 (280AT)

New biodestructive material for use as a joining element for bone tissue is a matrix of (A) a non-toxic resorbable polymer consisting of hydrophilic and hydrophobic members and (B) a reinforcing component made up of non-toxic, resorbable fibres.

The polymer component of the matrix pref. contains 20-40wt.% hydrophilic monomer. Pref. hydrophilic monomers are N-vinylpyrrolidone and acrylamide. Pref. hydrophobic components of the polymer are alkyl acrylates, esp. methyl methacrylate. The reinforcing fibre (pref. constituting 50-80wt.% of the matrix.) pref. consists of filaments of polyamide, oxycellulose and/or polyvinyl alcohol.

Used in the form of rods, clamps, plates etc. for fixing bones after fractures etc. The new material facilitates fixing of fractured bones, but is gradually absorbed so that surgical

removal is not necessary. The material is easily worked, so that the shape and size of the fixing elements can be tailored to the individual case. (13pp)

FRAU ★ D22 69981 D/39 ★ DE 3007-913
Freezing biological cell material - with freeze-protective agent mixt. contg. extra- and intra-cellular acting components pref. starch deriva.

FRAUNHOFER-GES FORD ANGE 01.03.80-DE-007913
A96 (17.09.81) A01n-01/02

01.03.80 as 007913 (200KB)

A freeze-protective agent mixt. of extra-cellularly- and intra-cellularly acting components is added in freezing biological cell material with freeze-protective agents which need not be washed out before cell material use.

The freeze-protective mixt. pref. contains at least 2 components and consists of a mixt. of mol.wt. fractions of polydispense materials, esp. of ether-substd. hydrolysed starch or starch constituents.

The number of irreversibly damaged cells is reduced. E.g. the undesired cell number is reduced by 50%. Optimum freeze component concn. in blood pressure can be reduced to 9-12% (wt./vol.), whereby blood flow and haemodynamics are improved. (7pp)

PETE- ★ D22 70007 D/39 ★ DE 3008-408
Neutralising smelly acidic gaseous and/or smoky material - with alkaline absorption liq. continuously replenished with alkali, water and hydrogen peroxide

PETERSEN HGES VERF 05.03.80-DE-008408

J01 (17.09.81) B01d-53/34

05.03.80 as 008408 (200BZ)

In process for neutralising smelly acidic gas- and/or smoky materials by treatment with an alkaline-reacting absorption liq., the absorption liq. is admixed continuously with (1) alkali, to maintain pH at least 8, (2) water, to maintain salt concn. over 10 g/l and (3) H₂O₂, to ensure H₂O₂ concn. of at least 0.02 g/l.

The process can be used in deodourising industrial, agricultural and municipal waste gases. The absorption liq. has optimum deodourising activity. Water-soluble, odourless neutral salts are formed, without toxicity and by-prod. problems. (8pp)

NOLL- ★ D22 70027 D/39 ★ DE 3009-202
Bottle screw cap steriliser - by hot air jet monitored for neither excessive nor inadequate sterilising temp.

NOLL MASCH GMBH 11.03.80-DE-009202

X25 Q39 (D14) (17.09.81) B67b-01/02 B67b-03/20

11.03.80 as 009202 (39RH)

The screw caps of a bottling machine are sterilised as they slide down an inclined chute by a jet of hot air (400 deg.C) which heats all parts including the sealing washer at the bottom to 220 deg.C. A sensor monitors the flow of screw caps and if there is an interruption, it passes a signal to a power cylinder which swivels the nozzle with the electric heater and blower unit away from the chute.

Another sensor on the bottling machine swivels the jet when the machine drive stops. A third sensor monitors the hot air flow and stops the machine if this fails or its temp. drops too much.

This ensures that the screw caps are neither damaged by excessive heat nor sterilised inadequately. (9pp)

CIBA ★ D22 70068 D/39 ★ DE 3047-151
Phenyl-3-methyl-butyric acid benzyl-benzyl ester(s) - used as insecticides esp. effective against insects which eat plants and keratin contg.-materials

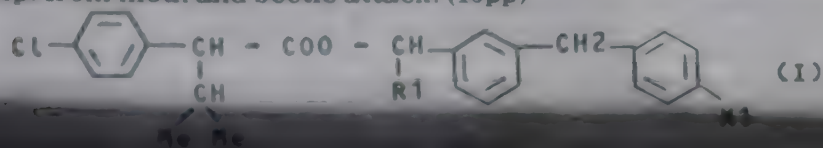
CIBA GEIGY AG 17.12.79-CH-011162

C03 E14 F06 (17.09.81) A01n-37/10 C07c-67/14 C07c-69/63 C07c-121/38 D06m-13/20

15.12.80 as 047151 (1401KB)

Phenyl acetate derivs. of formula (I) are new. In (I), R₁ is H, CN or ethinyl-, and X₁ is F; or R₁ is prop-1-ynyl and X₁ is H or F.

(I) are insecticides esp. effective against insects which damage plants by eating esp. cotton crops (e.g. against *Spodoptera littoralis* and *Heliothis virescens*) and vegetable crops, (e.g. against *Leptinotarsa decemlineata* and *Myzus persicae*) (I) are also highly effective against flies, e.g. *Musca domestica* and midge larvae. (I) are also very effective against insects which eat keratin e.g. against larvae of *Lepidoptera* e.g. *Tineola* and *Tinea* spp. and against *Coleoptera* larvae e.g. *Anthrenus* and *Attagenus* spp. (I) can be used to protect keratin contg. materials esp. from moth and beetle attack. (16pp)



CIBA

D22

03833 C/03 = EP G008-600

Phenoxybenzyl tetrahaloethyl-cyclopropane carboxylate cpds. - used as insecticides and acaricides and for moth proofing textiles

CIBA GEIGY AG 16.05.79-CH-004553 (27.06.78-CH-006992)

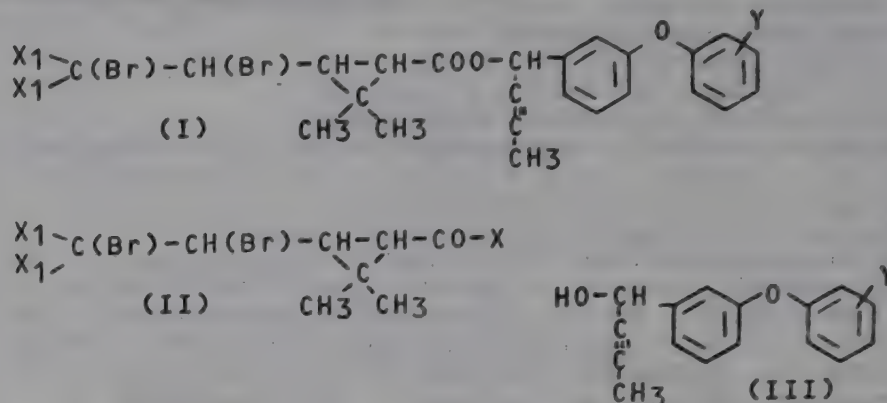
C03 E14 F06 (16.09.81) *EP---6-600 A01n-53 C07c-69/74

25.06.79 as 102086 (+15.1.79-CH-000356) (922MR) (G) DE2805193 DE2805312 E(BE CH DE FR GB IT NL)

Novel cyclopropane carboxylic esters are of formula (I): (where X₁ is F, Cl or Br and Y is H, CH₃, F, Cl, Br or I).

(I) may be prepared by reaction of (II) with (III) (where X is a halogen) in the presence of an acid binding agent.

(I) are esp. useful in controlling cotton plants-eating insect (larvae) and are also esp. used synergistically with pyrethroids to control other insects/acarides. (10pp)



CMPL

D22

20702 C/12 = EP G008-975

Yellow gold dental casting alloy - contg. platinum, palladium, iridium, indium, iron and silver

COMPT LYON-ALEMAND LOUYO 31.08.78-FR-025226

M26 + P32 (16.09.81) *EP---8-975 A61k-06/04 C22c-05/02

20.08.79 as 400578 (922DH) (F) CH-488017 E(BE DE FR GB IT NL)

A gold-containing yellow alloy comprises 82-92 (86-91) wt.% Au, 5-10 (6-8) wt.% Pt, 0.5-4 (1-3) wt.% Pd, 0.2-2 (0.3-1.2) wt.% Ir (up to 90 wt.% of which may be replaced by Rb or up to 50 wt.% of which may be replaced by Ru), 0.2-2.5 (0.5-1.5) wt.% In, 0.5-5 (0.5-3) wt.% Ag and 0.1-1 (0.2-0.3) wt.% Fe, Cr, Co and/or Ni (Fe). The Pd:Pt ratio is 0.1-0.33, the Ir:Pt ratio is less than 1:7, and the total of Pd and Pt is less than 11 wt.% and the alloy contains neither Cu nor Re.

The alloy may be used as such or covered with porcelain in the manufacture of a dental prosthesis, pref. after hardening by isothermal treatment at 450-600 deg.C for 5-30 mins. It combines a nice colour with excellent physical (thermal conductivity and expansion) and chemical (lack of toxicity, corrosion resistance, ceramics-compatibility) characteristics. (10pp)

MINN

D22

25367 D/14 = EP --35-517

Water-activated orthopaedic casting material - comprising high modulus fibre fabric impregnated with resin having strength and porosity

MINNESOTA MINING CO 04.09.79-US-072203

A96 P32 + P34 P73 (A25) (16.09.81) *WP8100-671 A61f-05/04

28.07.80 as 901682 Based on WP8100671 (928NS) (E) US4131114 US4134397 DE2651089 US4105025 E(AT CH DE FR GB LI LU NL SE)

An orthopaedic casting material (I) comprises (1) a fabric made from a fibre having an initial modulus of elasticity greater than 8000000 psi and having fabric thickness of 0.02-0.045 inch and mesh of 20-2000 openings/sq.in and (2) a reactive resin impregnated in (1) which hardens when wetted with a curing agent.

Also claimed is the formation of an orthopaedic cast on a body member (II) by (a) covering (II) with an inner protective sleeve of air permeable fabric and (b) wrapping (II) with (I) and wetting with a curing agent to harden the resin.

(I) has improved strength, porosity and rigidity which develops 20-30 mins. after appln. (40pp)

SCHM/ ★

D22

70080 D/39 ★ EP --35-583

Skin transplant pressure pad - with cut-out in lower foil- for bonding to skin and valve in upper foil for inflation

SCHMID E 11.03.80-EP-101233

P32 P34 (16.09.81) A61f-13 A61m-35

11.03.80 as 101233 (39BZ) (G) DS-848234 DS-449589 DE7806873 FR1255501 US3367332 1.Jnl.Ref E(AT BE CH FR GB IT NL SE)

An inflatable pad, to exert pressure on large areas of skin which have been transplanted in plastic and reconstructive surgery, consists of two rectangular foils of latex or an elastic plastic material to suit the transplant which are joined at the periphery by a tight seam. The lower foil has a central cut-out, slightly larger than the transplant and is bonded by adhesive to the skin of the patient. The top foil is bonded to the lower foil by adhesive.

This prevents the sweating under the usual rubber pads. The new pad throws no folds and allows oxygen or a nutrient solution to be applied to the transplant. (16pp)

SCHMID/ ★ D22 70081 D/89 ★ EP --35-584
Skin transplant pressure pad - made of two welded foils with stiff contoured plate on upper foil
SCHMID E 11.03.80-EP-101234
P32 (16.09.81) A61f-13

11.03.80 as 101234 (39DH) (G) DE2213182 DE1895718 DS1491215 DE2810737 DE2722563 DE2124803 DE7410200 US1320105 1.Jnl.Ref E(AT BE CH FR GB IT NL SE)

Pad to exert a pressure on large areas of transplanted skin consists of two foils, made of latex or an elastic plastic material, which are joined at the edges by an airtight welded seam. The top foil includes a valve for inflation with air or a liquid, and a bonded stiff plate which resembles the curvature of the limb on which the transplant has been applied.

This stiff plate is also made of plastic material and is rigid and large enough to exert a uniform pressure on the transplant. This pad prevents folds from forming (which remain visible after complete healing). (12pp)

RIGE D22 68110 D/38 = EP --35-593
Carbon as implantable carrier for antibiotics - e.g. in joint prostheses

SIGRIELEKTROGRAPHI GMBH 01.03.80-DE-007878
B06 E36 P34 (B07) (16.09.81) *DE3007-878 + A61k-09/20
13.11.80 as 107003 (280NS) (G) No-Citns. E(AT CH FR GB LI)

Use of carbon as an implantable carrier for antibiotics is new.

The carbon carrier may be in the form of a prosthesis (e.g. a hip joint prosthesis) or an implant intended solely as an antibiotic carrier. In the latter case, the carbon is pref. of a highly porous kind which can be changed with antibiotic by immersion in an antibiotic soln. In the case of prosthetic implants, mechanically less stressed parts of the prosthesis may be more porous in order to accommodate the antibiotic. Carbon carriers contg. antibiotics may also be used in direct contact with bone cement. Suitable forms of carrier are carbon fibres of carbon granules embedded in bone cement.

Carbon implants are biocompatible, and carbon does not adversely effect the activity of antibiotics. The antibiotics are desorbed from the carrier surface relatively slowly, so that their effect is prolonged. (6pp)

DESO- D22 60598 D/34 = EP --35-625
Tree wound-sealing and-protecting agents - contg. N-nitroso-N-cyclohexyl-nitrosamine or n cyclo:hexyl-diazenium:di:oxy salts

DESOWAG-BAYER HOLZ 06.02.80-DE-004234
C03 E15 + P13 (16.09.81) *DE3004-234 + A01g-01/06 A01g-07/06 A01g-17/18

14.01.81 as 100208 (280JB) (G) DE2163062 DE1817579 DE2336298 DE1543375 FR2263083 FR2001299 FR2202649 DE1905279 DE2711639 J52007429 J52079004 2.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

New wound-treating, sealing and protecting agents for trees contain at least one salt of N-nitroso-N-cyclo hexyl-hydroxylamine (I) or an (N-cyclohexyl-diazeniumdioxo) cpd. (II) of a mono-, di- or trivalent metal (esp of aluminium).

Pref. agents contain 0.5-7 (esp. 2-4) wt.% of a salt of (I) or of a cpd. (II). The agents are pref. in an emulsion, dispersion, solution of paste contg. water and/or an organic solvent or solvent mixt. They pref. contain a polymer or polymer resin and/or a softening agent and/or a drying oil, and may contain additional ingredients such as dyes, insecticides, fungicides etc.

Agents contg. a salt of (I) or a cpd. (II) promote the formation of new bark over wounds. While suitable for use on broadleaved trees, they are particularly effective on conifers, e.g. firs. (20pp)

MEDI= ★ D22 70268 D/39 ★ FR 2475-896
Compsn. for rendering wound airtight - comprising alpha-cyanoacrylate ester, polyethylene glycol ether of primary aliphatic alcohol and a ketone

MED TECH RES INST 14.02.80-SU-912942
A96 (A14) (21.08.81) A61k-31/27 C09j-03

13.12.81 as 002904 (950RP)
A comps. for rendering airtight the surface of a wound and based on alpha-cyanoacrylic acid esters, contains polyethyleneglycol monoalkyl ethers based on primary aliphatic alcohols of formula $C_nH_{2m} + 10(C_2H_4)_mH$ (where n is 10-18 and m is 7-10) and a water-soluble ketone.

The comps. is used for rendering airtight the line of anastomosis suture, the surface of visceral wounds, for stopping diffused haemorrhage during surgical operations, to ensure tightness of gastric and duodenal chronic ulcers by endoscopic application on the ulcerous surface. Compared to known cyanoacrylate comps., it forms a more resistant and more durable film. (11pp)

SHEL ★ D22 70307 D/39 ★ GB 1598-441
Air treatment gels, esp. air fresheners - contg. soap, alkylene glycol mono:alkyl ether, and volatile cpd. esp. perfume
SHELL INT RES MIJ BV 31.03.77-GB-013622
E17 (23.09.81) A61k-07/46

29.03.78 as ----- (955PW)

An air treating gel comprises a soap, a monoalkyl ether of an alkylene glycol (A), and one or more volatile air treatment cpds. (B).

The soaps are pref. alkali metal salts of 8-30, esp. 12-20C monocarboxylic acids, esp. sodium stearate. (A) are esp. 1-4C alkyl ethers of mono-, di- or triethylene glycols, partic. diethylene glycol monoethyl ether. (B) include odourants, pesticides, bactericides or fungicides. The gels are esp. air fresheners. They are stronger than water based gels, and contain a high proportion of active ingredient. They have a good odour. They shrink in use, giving a visible indication of depletion. (3pp)

NEDE D22 53854 A/30 = GB 1598-451
Organo-tin cpds. with substd. alkyl gp. - are strong, water soluble antifungal and antibacterial agents

NETHERLAND CENT SCI 17.01.77-GB-001779
C01 E12 G02 P34 (23.09.81) *DE2801-700 C07f-07/22 + A01n-59/16

17.01.78 as ----- (936MR)

Organotin cpds. of formula

$(R_1XR_2YR_3ZSn((CH_2)_nq)pXq(I))$

are new. R1-3 are each n- or branched 1-5C alkyl or aryl; X is OH, halo, ester, amino opt. in the form of hydrochloride salt, CONH2, quat. ammonium, pyridyl, piperidine, NR4(CH2)mNR5R6 (where R4-6 are each, n- or branched opt. substd. alkyl; and m is integer 1-4), a complex of dimethylamino propylamine with a halogen acid -NH-(CH2)3-NMe2-2HCl or the corresp. quat. ammonium deriv. (-NHR(CH2)3NMe2R)2(+)2Z(-).

R is n- or branched alkyl; Z is anionic gp.; X is linked to the terminal C atom of the (CH2)n gp.; x,y,z,n,p and q are integers, z,y and z being 0 or 1, n being 1-4, p being 1-3 depending on the valence requirements of x,1 being 1 or 2, and if q = 2 then x + y + z = 2 and p = 1 and if q = 1 then x + y + z = 3.

(I) have high antifungal and antibacterial activities. (7pp)

FARH D22 72723 A/41 = GB 1598-458
Tablets contg. microencapsulated active substances - made using natural or synthetic water soluble waxy materials, esp. polyethylene glycol

HOECHST UK LTD 01.04.77-GB-013855
A96 B07 C03 P33 (C04) (23.09.81) *BE-865-633 A61k-09
31.03.78 as ----- (936MR)

Tablet produced by compression comprises a microencapsulated substance or a substance with a brittle coating (I), and a water-soluble natural or synthetic wax having m.pt. at least 30 (30-100) deg.C in amt. more than 2% w/w and not more than 20% w/w, calculated on (I).

Pref. the wax is polyethylene glycol or a stearate, esp. Na stearate or polyoxyl stearate. Pref. the tablet comprises more than 3 wt.% wax. Coating for the microencapsulation or brittle coating is pref. acrylic resin, ethyl cellulose, nylon, glyceryl monostearate or beeswax.

Used to provide a pharmaceutical substance in unit form to assist correct dosing. (6pp)

BLOC/ ★ D22 70309 D/39 ★ GB 1598-461
Device for emergency treatment of burns - comprising pouches holding substances which react endothermically for rapid cooling

BLOCH M 12.04.77-GB-015155
P32 Q75 (23.09.81) A61f-07/10 F25d-05/02
12.04.78 as ----- (295PW)

A cooling device for the treatment of burns comprises flexible container with a fluid-contg. compartment and at least one other compartment holding a material which when mixed with the fluid reacts endothermically.

The fluid and material are mixed together when required, by breaking an internal partition without rupturing the external walls of the device. The further compartment is formed from two sheets of weldable plastics material secured together around their peripheries and are also spot welded together at several spaced points across their surfaces.

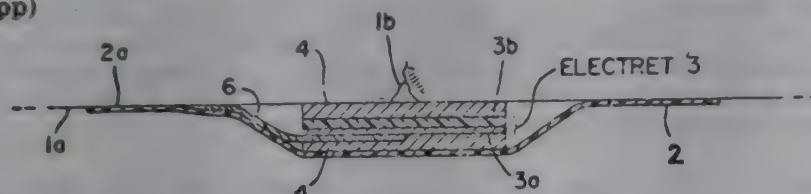
The device can be brought quickly into use for the emergency treatment of burns. (5pp)

HOFF D22 45803 A/26 = GB 1598-817
Electrostatic cicatrisation of (skin) wounds with electret dressing - allows patient freedom from battery or external power connection

HOFFMANN-LA ROCHE AG 23.12.76-US-754060
S05 V01 X12 P34 + P32 (23.09.81) *BE-862-155 A61n-01/10
14.12.77 as 052127 (1358WB)

Appts. for enhancing the natural healing process of a soft tissue injury comprises a substrate (2), which can be secured to the injured area and an electret (3) mounted on the substrate for non-invasive placement near to the injury and providing an electrostatic field at the injury.

The substrate may be a surgical sponge, may be adhesive-coated on one side to form a self-contained self-adherent bandage, may be a closely fitting article of clothing, or may be a cast on an extremity. There may be a piece of gauze (4) mounted about the electret, which is pref. configured to conform to the geometry and location of the injury and consists of a number of elements arranged to provide a field to the entire injury area. (9pp)



MINA ★ D22 70399 D/39 ★ GB 2071-653
Biocidal hydroxyalkyl-piperidine(s) and fuses piperidine(s) -
prepd. e.g. by hydrogenation of corresp. pyridine(s)

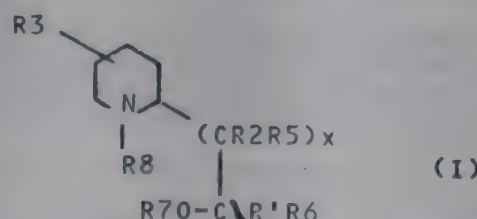
UK SEC FOR DEFENCE 18.02.81-GB-005073 (28.02.80-GB-006772)

C02 G02 (23.09.81) C07d-211/22 C07d-263/04 C07d-265/04 C07d-498/04

18.02.81 as 005073 (476AT)

Hydroxyalkyl-piperidine derivs. of formula (I) are new. x is 0 or 1; R1 is 5-20C alkyl or is aryl substd. by at least one electron-withdrawing substit; R2, R5 and R6 are each H, 1-20C alkyl or aryl substd. as for R1; R3 is H or 1-6C alkyl; R7 and R8 are each H or together are -CH(R4)- in which R4 is H, 1-16C alkyl or aryl substd. as for R1. Also new are cpds. of formula (I) in which x is 2, R1, R2, R5 and R6 are each H, 1-20C alkyl or aryl; R3 is as previously defined; and R7 and R8 are as previously defined except that when R4 is aryl it may be unsubst., but excluding the cpds. in which x is 2, R1, R2, R5 and R6 are each H, R7 and R8 are each H or together are methylene, and R3 is H, methyl or ethyl.

Cpds. (I) as widely defined, have fungicidal algicidal and barnicidal activity. Because of their low seawater solubility they have increased useful life and reduced toxic effects away from the treated surface. They are simple and inexpensive to prepare and are generally colourless. In tests on the early stage nauplic of *Elminius modestus* and *Balanus balanoides*, many cpds. (I) exhibit 100% toxicity at a concn. of 10 power minus 5 g/ml. In addn. to their use against undesirable biological growth on submerged, partly submerged or damp exposed structures e.g. in paints, (I) may also be used against fungal growth in hydrocarbon fuels. (17pp)



NIVL ★ D22 70563 D/39 ★ J5 6099-410
Medical skin plaster has tacky ointment layer - formed on and impregnated into part of nonwoven fabric base, and also bonding material

JAPAN VILENE CO 10.01.80-JP-002332
 (10.08.81) A61k-09/70

10.01.80 as 002332 (5NS)

Plaster has tacky layer formed on a side of nonwoven fabric base. Part of the ointment is impregnated into part of the nonwoven fabric base. Bonding material is laid partly in the nonwoven fabric base so that both parts are not detached from each other.

In the prior art thin, nonwoven fabric has been used as the base for plasters, but the ointment is likely to be impregnated into the fabric, which then detaches itself from the rest of the ointment. The bonding material is e.g. elastic resin such as natural rubber, synthetic rubber, etc., thermoplastic resin, thermosetting resin, etc. prevents the ointment-fabric sepn.

Prof. the bonding material is laid in the base by a caving roll, having below and etc. using textile printing techniques. As the

SHIR- ★ D22 70658 D/39 ★ J5 6100

Deodorant compsn. - uses extract from theaceae plants

SHIRAIMATSU SHINYAK 14.01.80-JP-002927

P34 (11.08.81) A61l-09/* B01d-53/34

14.01.80 as 002927 (117BZ)

A deodorant compsn. is obtd. by mixing active ingredie extracted from Theaceae plants, e.g. Camellia, Cleyera, etc. meet standards of behavior, absorbance of ultraviolet li arsenic content, heavy metals content, ignition loss, etc., wi carrier, e.g. papers contg. 50 wt.% or less porous (ln)org substance. Pref. the portion of active ingredients extracted fr Theaceae plants is one wt. pt. on the basis of 20 wt.pts. paper.

The deodorant compsn., prepd. usually in ethanol aerosol, granule, tablet, etc., is safe with power to deodor various kinds of offensive odours. The compsn. is used refrigerators, kitchen, water closet, sewage treatment pl garbage disposal site, stock-raising farms, or other offens odour resources. (3pp)

MITO ★ D22 70740 D/39 ★ J5 6100

Washing gas to remove malodorous sulphur cpds. e.g. mercap - by counterflow of aq. alkali and sodium hypochlorite soln. in absorption towers

MITSUBISHI HEAVY IND KK 10.01.80-JP-000869

E19 J01 (12.08.81) B01d-53/34

10.01.80 as 000869 (32BZ)

Waste gas contg. S-cpds. is washed with a water soln. contg alkali and Na hypochlorite by two steps. In a first absorbt tower, the gas is washed with a soln. of pH 9-11 and an effec chlorine content 100-1000 ppm. In the second absorbing tower, gas is washed with a soln. of pH 7-9 and an effective chlo content 200-1500 ppm. In each tower, an alkaline soln. flows a the opposite direction to the gas flow. The treated ga discharged through a demister.

This process is used for removing offensive smells, ammonia, H₂S, methyl mercaptan, methyl sulphide, me disulphide, trimethyl amine, etc. from sewage, etc. The two treatment separates such neutral compounds as methyl sulph or methyl disulphide at a high efficiency. (4pp)

NITL ★ D22 70774 D/39 ★ J5 6100

Medicament-contg. plaster prodn. - by forming hydrous gel contg. polyacrylic acid, epoxy cpd., poly:ol, organic acie medicament on soft support

NITTO ELECTRIC IND KK 16.01.80-JP-003820

A96 B07 (12.08.81) A61k-09/70

16.01.80 as 003820 (5RP)

The plaster is prepd. by forming the medicine-contg. hydro layer which contains (a) polyacrylic acid and/or its sa water, (c) polyhydric alcohol, (d) cpd. having at least two gps. intramolecularly, (e) organic acid and (f) medicine major ingredients, on soft support.

Pref. polyacrylic acid or its salt has polymerisation 20000-70000, and is used 1-40 w/w% in the hydrous gel. Poly alcohol imparts softness to the hydrous gel and promot dissolution of the component (a) in water, and is used 5-40 in the hydrous gel. As the compound (d) triglycidylisocyan polyethyleneglycol-diglycidylether, etc. can be used. It se the crosslinking agent for the component (a) and is use w/w% in the hydrous gel.

The plaster is stable and drip free and gives cold Further it can be prepared at room temp. and the medicin lost or decomposed during its prepn. (3pp)

NITL ★ D22 70775 D/39 ★ J5 6100

Medicinal plaster - with medicine-contg. layer, and m dosing layer comprising porous film contg. liq. with re solubility and transport action

NITTO ELECTRIC IND KK 16.01.80-JP-003822

B07 P32 P34 (12.08.81) A61f-13/02 A61k-09/70 A61l-15/

16.01.80 as 003822 (5RH)

Plaster is used to give controlled amount of active continuously through skin or mucous membrane and co medicine-holding layer and the medicine-dosing layer applied on at least one side of the medicine-holding dosing the active medicine. The medicine-dosing composed of porous film and a liquid substance which i the pores of the film and shows the restricted solubilit controlled transporting ability for the active medicine.

As the porous film that of pore size below 10 micron ca favourably. As the liquid substance vegetable oil, a paraffin, polyhydric alcohol, its derivative, higher fatt

IATU ★ D22 70993 D/39 ★ J5 6102-241
Ice-bag for treating sun-stroke, sprains etc. - obtd. by packing aq. soln. of a salt in inner bag, placing in outer bag and filling outer bag with water

MATSUSHITA ELEC IND KK 19.01.80-JP-004933
A96 E34 G04 P32 (E35) (15.08.81) A61f-07/10
01.80 as 004933 (117PW)

The ice bag obtd. by packing a soln. of at least one salt, e.g., ammonium nitrate, sodium nitrate, potassium nitrate, ammonium chloride, potassium thiocyanate, and ammonium thiocyanate, in water in an inner bag; placing the inner bag in an outer bag; and filling the outer bag with water.

The ice bag, utilising the endothermic dissolution of salts can provide low-temp. cooling effect simply. It is applicable in cases where a person is affected by sunstroke, sprains, etc.

In an example, 10 g of ammonium nitrate and 226 g of potassium thiocyanate were dissolved in 200 cc of water put in a 15 x 20 cm polyethylene inner bag and then the upper end of the inner bag was sealed. The polyethylene inner bag was put in a 20 cm polyethylene outer bag and then 200 cc of water was filled in the outer bag, followed by sealing the upper end of the outer bag. (3pp)

KAOS ★ D22 70995 D/39 ★ J5 6102-251
Deodorant compsn. - contg. inorganic peroxide and lower aliphatic acylated cpd. of cpd. with active hydrogen

KAOSOAP KK 21.01.80-JP-005525
E19 P34 (E34) (15.08.81) A611-09/*
01.80 as 005525 (117RH)

A deodorant contains an inorganic peroxide, e.g. sodium percarbonate or sodium sulphate-hydrogen peroxide addn. prod. and a lower aliphatic acylated cpd., e.g. acetylde, of a cpd. with active hydrogen, e.g. glycerine, trimethylol propane, pentaerythritol, glucose, saccharose, ethylenediamine, propylenediamine, diethylenetriamine, or glycoluril.

Deodorant is effective against odours emitted from various organic substances, e.g. the droppings of livestock, the meat and internal organs of fish and animals, or other sources, and is, therefore, effectively applicable in fields of home, factory, wastes dumping site, etc.

The deodorant may contain a colourant, an oxidant, a reducing agent, a fungicide, an insecticide, or other necessary adjuncts, which are considered to be innocuous to the behaviour of the deodorant. Also, the shape and composition of the deodorant can be freely chosen according to the kinds, location, and degree of offensive odour. (5pp)

ESPE D22 49201 T/31 = J8 1037-209
Self-curing compsn - suitable for appln as dental cement

ESPE FAB PHARM PRAPARATE 15.01.71-DE-101939
A96 E32 (29.08.81) *DE2101-939 A61k-06/02
02.01.72 as 005316 (BZ)

Compsn. contains as liq. component an aq. soln. of polymeric unsatd. carboxylic acids, and ZnO as pulverulent component, as well as opt. usual additives. The polymers are derived from unsatd. alpha,beta-dicarboxylic acids, pref. contg. 4-5C atoms, esp. poly(maleic acid), poly(itaconic acid) and copolymers thereof with other carboxylic acids esp. acrylic. The cements do not irritate or damage dentine have excellent compressive strength and are non-porous. (J47042855) (6pp)

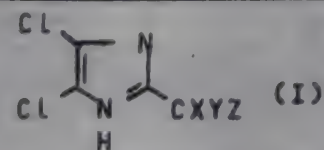
ARB D22 65000 Y/37 = SU -793-356
5-Dichloro-imidazole (2)-carboxylic acid derivs. - useful as herbicides, fungicides, bactericides, insecticides etc.

BAYER AG 12.03.76-DE-610527
C02 E13 (30.12.80) *BE-852-313 C07d-233/68 + A01n-43/50
03.77 as 455516 (GW)

Imidazole derivs. of formula (I) and their salts with bases have been prepd. In (I) CXYZ represents a C atom with 3 bonds attached to heteroatoms. Pref.(I) have CXYZ equal to cyano or C(Z)-W is O, S or /N Aryl. Z is halo, alkoxy, alkylmercapto, alkoxy, arylmercapto, NH Aryl, or R11NR12 (R11 and R12 are h opt. subst. organic gps.) when W is = N Aryl, and Z is NH Aryl when W is O or S.

(I) are broad-spectrum pesticides, i.e. herbicides for pre- or post-emergence use as selective herbicides in cereals and cotton, as total herbicides; fungicides (against aerial, soil or seed-borne parasites); bactericides; insecticides; acaricides and nematicides for agricultural or hygienic applications or for protection of stored goods. They also control plant growth e.g. as growth retardants, defoliants or germination inhibitors.

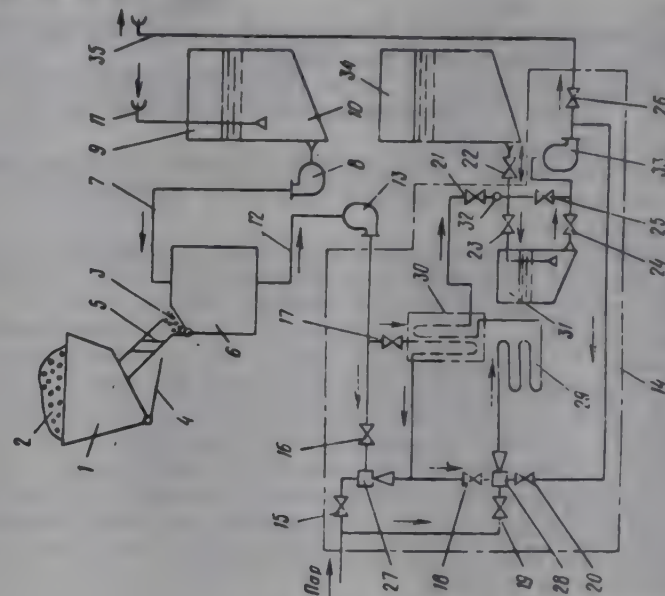
In an example, reaction of 4,5-dichloro-2-methyleneimidazole with urea gave 4,5-dichloro imidazole-2-oyl-urea. Bul. 0.12.80. (20pp)



IVAN/ ★ D22 71361 D/39 ★ SU -793-86
Device for sterilising ship's aq. and solid effluents - includes steam injection heaters, helical-shaped holder and heat-exchanger-utiliser

IVANOV LV 09.04.79-SU-749922
Q24 (07.01.81) B63b-35/32 B63j-05
09.04.79 as 749922 (800GW)

This ship's stagnant water and solid effluent sterilising device gives more effective sterilisation and less fuel consumption. The aggregate (14) has a steam injection heater, including steam injectors, a helical-shaped holder, a heat-exchanger-utiliser and an intermediate vessel with a pump (13). The crusher's chamber is communicated in sequence by pipelines to the steam-injector's helical-shaped holder and the heat exchanger-utiliser. Bul. 1/7.1.81. (3pp Dwg. No. 2)



FRIE- D22 61647 C/35 = US 4287-616
Artificial ear bone - having plate with groove in side away from stem and hole drilled through both

FRIEDRICHSFELD GMBH 19.09.79-DE-937842 (10.02.79-DE-905183)
L02 P32 (08.09.81) *NL8000-796 A61f-01/24
06.02.80 as 118910 (982PW)

Auditory osside prosthesis comprises a rigid plate and a depending tubular shaft formed integrally as a one piece construction from a biologically inert ceramic. The surface of the plate on the side away from the shaft has a number of grooves.

Pref. the axis of the shaft is inclined at an angle of 30 degrees to the grooved plate. The grooves are parallel with a plane passing through the axis of the shaft and normal to the plane of the grooved surface. The cross-section of the shaft is uniform.

The implant can be worked intraoperatively at high precision and maintains its shape. (7pp)

GATR- D22 46115 A/26 = US 4287-702
Sterilised thermoplastic film pack - in which sterilised webs carry sterile main film through heating moulding filling and sealing points

GATR UNSTALT (NASI) 10.05.77-FR-014285
A35 Q31 (A92) (08.09.81) *DE2754-816 B65b-55/10 + B65b-43/08 B65b-47/04
28.04.78 as 900870 C.1.p 4155786 (+ 15.12.76-US-750959) (6NS)

Sterile packaging appts. comprises an enclosure slightly pressurised with sterile gas, the whole or part of the chamber bottom being formed by the upper face of a plastic film web which enters the enclosure, and at the entrance has a cover film stripped from its upper face.

The film is heated, and formed into containers between a bottom mould and a top punch reciprocable vertically. The containers are filled inside the enclosure, and at its outlet a covering strip is applied having at least its inner face sterile. Foods and medicines are packaged sterile by prodn. line appts. (13pp)

REIC ★ D23 71887 D/89 ★ US 4288-349
 Wood preserving soln. - contg. tetra- or penta-chloro-phenol, butanol or iso-propanol, ammonia or amine and water
REICHHOLD CHEMICALS INC 11.08.80-US-176795 (02.12.77-US-857035)
C03 E14 F09 (08.09.81) C09d-05/14
 11.08.80 as 176795 (+ 26.2.79-US-014955) (1248BZ)
 Wood treating and preserving soln. comprises a blend of (a) 0.5-50% pentachlorophenol and/or tetrachlorophenol, (b) 2-98% n-, s-, l- or t-BuOH and/or i-PrOH; (c) 0.56-45% NH₄OH, NEt₃, NMe₃, MeNH₂ and/or methyldiethanolamine, and (d) 1-97% water.
 The soln. pref. also contains up to 10% of each of tetrasodium pyrophosphate, Cu salts, Na citrate or Na n-dihydroxy-ethyl glycinate or up to 20% NH₄ or Na ligninsulphonate. Pref. 0.02-20% NaOH is included.
 With use of the soln. the tetra- or penta-chlorophenol is effectively deposited in the wood in a non-leachable form, esp. when the soln. also contains 0.02-20% NaOH. The soln. has good penetrability, and the treated wood will withstand a marine environment. The soln. does not form a ppte. under normal use conditions and is non-corrosive to steel. (8pp)

DOWC ★ D22 71591 D/39 ★ US 4288-296
 Inhibiting decomposition of chlorinated phenol during distn. - by addn. of higher mono-hydric p-alcohol
DOW CHEMICAL CO 01.02.80-US-117733 (26.03.79-US-023867)
C03 E14 (08.09.81) B01d-03/34 C07c-37/74 C07c-39/36
 01.02.80 as 117733 (1248BZ)
 Inhibition of decompn. of chlorinated phenol (I) at high temps. is achieved by addn. of at least 0.25% of a monohydric p-alcohol having at least 14C.
 Usually 0.25-10% of inhibitor is present, based on the crude (I). It may be present when the (I) is at high temp. e.g. when stored in a molten state, as well as during distn. The (I) is esp. pentachlorophenol. The inhibitor is 1-tetradecanol, 1-pentadecanol, 1-tetracontanol etc. or a branched 14-40C monohydric p-alcohol, pref. with b.pt. over 310 deg.C.
 Vacuum distn. is pref. used in the sepn. of purified (I) and 85-97% recovery is usual, based on (I) in the crude feed. Prod. (I) after distn. in presence of the inhibitor are free from the usual undesirable impurities esp. coloured materials, and so they have greater acceptability in use. The prods. are used as germicides and insecticides, flea repellents, fungicides, wood preservatives, mould inhibitors etc. (4pp)

EWOS D22 77575 C/44 = US 4288-428
 Iodophor containing udder disinfectant - contains urea and an acid to prevent teat chapping
EWOS AB 02.04.79-SE-002893
A96 B04 C03 + P34 (08.09.81) *EP--17-639 + A61k-31/74
 27.03.80 as 134425 (924PW)
 Iodophorous udder disinfectant comprises an iodophor in the form of an alkylphenoxy polyethyleneoxyethanol-iodine complex or a PVP-iodine complex. In one dilution the disinfectant contains the complex in an amt. sufficient to provide at least 0.01 (pref. 0.1-0.4) wt.% free iodine, 5-10 wt.% urea, an acid in an amt. sufficient to provide a pH of 1-5 (pref. 1-3) and a solvent sufficient to make 100 wt.%.
 Pref. the solvent is water. Pref. the disinfectant further contains an alkoxylated glucose deriv. in an amt. of up to 4 wt.%. Pref. the complex is combined With a nonionic surfactant in an amt. of at least 0.08 wt.%. Good bacterial effect is obtd. with a low iodine concn.. The compsn. also provides a good skin emollient effect with increased milk prodn. (5pp)

NISH- ★ D22 D/39 ★ ZA 8000-172
 Air-permeable, waterproof diaper cover - with rear body part including waterproof stretching material and front part including air-permeable water-repellent material
NISHIKI CO LTD 11.01.80-ZA-000172
P21 P32 (02.07.81) A41b A61f
 11.01.80 as 000172 (AS)
 *06Diaper cover comprises a front body part and a rear body part and two wings attached to the left and right upper sides of the rear body part. The rear body part comprises at least a section of waterproof and stretching material, and the front body part comprises at least a section of air-permeable A reaction prods. of (a) carboxyl-functional polymers; (b) polyepoxides; and (c) tert. amines are useful as film-forming components of coating compsn. which can be spray-, flow-, dip-, roller-, or electro-coated. Compns. are useful as such or can be crosslinked with crosslinking agents such as a nitrogen resin and, when coated on metal and paper substrates, they provide coatings of improved properties, including a high degree of flexibility during machining and stamping of the coated articles, corrosion resistance, gloss, hydrolytic stability, and non-adulterating of foods and beverages in contact. (41pp)

See Also

D15 EP--35538 D15 US 4288430

D23: OILS; FATS; WAXES

HOFF D23 14805 B/08 = DS 2860-753
 2,2,4-Tri:methyl-cyclopent-4-en-1,3-di:one prepn. - by oxidn. of 3,5,5-tri:methyl-cyclohex-2-en-1,4 di:one with oxygen and metal catalyst
HOFFMANN-LA ROCHE AG 12.08.77-CH-009910
E15 (17.09.81) *GB2002-382 C07c-45/67 C07c-49/59
 07.08.78 as 860753 Based on EPG000885 (922WB)
 2,2,4-Trimethyl-cyclopent-4-en-1,3-diene, a chemical intermediate and having olfactory properties, is produced in higher yields by oxidising 3,5,5-trimethyl-cyclohex-2-en-1,4-diene with (an)oxygen(-rich) gas in the presence of a catalyst based on Mu, Co or Cu(pref. Mu acetate or acetylacetonate).
 The process is pref. carried out in an inert organic solvent which at least partially dissolves the catalyst (pref. diethyl ether or pyridine) and at 40-110(55-70 deg.C). (3pp)

GIVA D23 12500 B/07 = EP G000-771
 Tri:methyl-octanol(s) and di:methyl-nonanol(s) odorants - esp. useful in combination with natural odorant compsns.
GIVAUDAN L & CIE SA 15.06.78-CH-006537 (04.08.77-LU-077923)
E17 (16.09.81) *GB2001-984 A61k-07/46 C07c-29 C07c-31/02 C07c-33/02 C07c-49/20 C11b-09
 02.08.78 as 100580 (068NS) (G) DS1643856 US3833635 E(CH DE FR GBNL)
 New cpds. of formula CH₃-C(Me)H-CH₂-C(Me)HCH₂-R (where R is a 1-hydroxy-2-methyl-propyl or 3-hydroxy-butyl gp.) are prepd. by (a) reacting 3,5-dimethylhexanal with an isopropyl magnesium halide or reacting isobutyraldehyde with a 2,4-dimethylpentyl magnesium halide or (b) hydrogenating 2,5,7-trimethyl-4-octene-2-ol, 6,8-dimethyl-3-nonene-2-ol, 2,5,7-

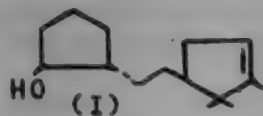
2,5,7-trimethyl-3-octanone or 6,8-dimethyl-2-nonanone.
 The new cpds. are useful as perfumes giving a fruity, e.g. apricot nuance in prods such as cosmetics, deodorants, shampoos, etc. (15pp)

CHEM D23 32830 C/19 = EP G012-800
 Butane-2,3-di:one prepn. by gas-phase iso:butanal oxidn. - over contact catalyst contg. manganese oxide and zinc oxide and/or titanium di:oxide
CHEM WERKE HULS AG 06.12.78-DE-852716
E17 (16.09.81) *DS2852-716 C07c-45/33 C07c-49/12
 08.10.79 as 103833 (068NS) (G) DS1232126 DS1162345 US2686813 E(BE CH FR GB IT NL)
 Butane-2,3-dione and acetone are prepd. by catalytic oxidn. of isobutanol in the gas phase in the presence of a catalyst of manganese oxide and at least one of the oxides of zinc or titanium, the manganese oxide concn. in the finished catalyst being 0.1-10% by wt. A mixt. of 1-4.5 vol. % of isobutanal and isobutanal and 1.2-99 vol. % oxygen, together with an inert diluent if required, is passed over such a catalyst at 150-250 deg.C and 1-5 bar for 0.5-8 seconds.
 The catalyst has a high selectivity for the prepn. of butane-2,3-dione and acetone. (4pp)

FRIT- D23 29035 D/16 = EP --35-562
 Substd. cyclic alcohol(s), fragrance cpds. - obtd. by reacting cyclopentanone with 2,2,3-tri:methyl-3-cyclopentene-1-acetaldehyde
FRITZSCHE DODGE OLC 19.09.79-US-077037
E15 (16.09.81) *WP8100-845 A61k-07/46 C07c-35/21
 02.09.80 as 808919 Based on WPA00045-3528W

Substd. cyclic alcohols of formula (I) are new. (where the dashed line is a carbon to carbon single or double bond).

(I) are useful fragrance materials which impart a soft, warm woody note with powdery nuances. They are generally added at 0.1-80 wt.% to fragrance compsns. (18pp)



KREM-★ D23 70127 D/39 ★EP--35-703
Terpineol prodn. by direct hydration of pinene - with aq. phosphoric acid in presence of emulsifier, useful as perfume (AT 15.6.81)

KREMS-CHEMIE GMBH 10.03.80-AT-001309

E15 (16.09.81) B01f-17/42 B01j-27/16 C07c-29 C07c-33/20

26.02.81 as 101397 (1251AS) (G) DS-692416 DE1468045 CH--92123 E(CH DE FR GB LI)

Prodn. of terpineol (I) comprises direct hydration of alpha-and/or beta pinene (and/or raw materials contg. them) with 20-60 wt.% H₃PO₄ using at least 0.5 (but pref. not over 3) vol. pts. acid per vol. pt starting material, in presence of 0.05-0.5 wt.%, on acid, of a nonionic or cationic emulsifier. The aq. and organic phases are thoroughly mixed at 40-80 deg.C. Pref. emulsifiers are ethoxylated nonylphenol or fatty alcohol, aliphatic amine (salts); quat. ammonium cpds. or quat. alkylheterocycles.

(I) is useful as a perfume and, as pine oil, in solvents or cleaning or disinfectant compsns. (20pp)

AGEN D23 50047 A/28 = GB 1598-820
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - in presence of cobalt and bromide catalysts; for use as perfumes, pharmaceuticals and intermediates

AGENCY OF IND SCI TECH (SANK-NIPS) 15.08.77-JP-097646 (27.12.76-JP-158756)

B05 C03 E14 (23.09.81) *DE2757-031 C07c-29 C07c-45/33

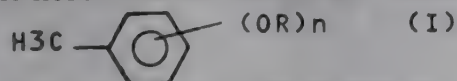
28.12.77 as 054025 (+ 27.12.76-JP-158757) (974MR)

Toluene derivs. of formula (I) are subjected to auto-oxidation with O₂ to produce alcohols and/or aldehydes. R is 1-20C hydrocarbyl (opt. having inert substit(s) and n is 1 or 2.

The process is in the liq. phase using, as solvent, a lower satd. fatty acid (anhydride) opt. produced in situ. It is at 30-200 deg. C and under an O₂ partial pressure of 0.1-5.0 kg per sq.cm. abs.

If n is 1, reaction is in the presence of 0.0001-0.5 moles Br ion-supplying substance (II) and 0.01-10 moles Co ion source and opt. a co-oxidiser per mole (I). If n is 2, it is in the presence of 0.0001-0.5 moles (II) and 0.0005-20 moles Co ion source and opt. a co-oxidizer per mole (I). Reaction is such that conversion of (I) does not exceed 65% if n is 1 and OR is meta w.r.t. CH₃, 80% if 1 and ortho and 90% if 1 and para or if n is 2.

Prods. are e.g. intermediates for perfumes, medicaments, agricultural and horticultural chemicals. (61pp)



MUSA ★ D23 70994 D/39 ★J5 6102-250
Solid perfume mfr. - by mixing tri:chloro:methylphenyl carbinol acetate, yellow wax and silica, adding perfume, heating, cooling and moulding

MUSASHINO KORYO KAG 21.01.80-JP-004628

E14 P34 (D21) (15.08.81) A611-09/★

21.01.80 as 004628 (117WB)

A base material trichlormethylphenylcarbinol acetate is mixed with 5 to 20% (on base material) yellow wax and then with 20 to 50% (on base material) SiO₂, perfume is added to it and the resultant mixed by heating, cooled, and moulded.

The solid perfume has excellent mechanical strength, dimensional stability, etc., and long lasting perfuming effect. The solid can contain a high concn. (up to 40%) of perfume and also can be used stably even at the high temp. ca. 40 deg. C for more than 90 days. The solid perfume is useful in rooms or for humans.

For example, 36 pts. trichloro methylphenyl carbinol acetate, 4 pts. yellow wax, 20 pts. SiO₂, and 40 pts. jasmine perfume were mixed by heating, cast in a mould, and then cooled. (2pp)

NISS D23 20803 A/11 = J8 1037-280
Extraction of plant components - after pulverising the plant and pelletising the resulting powder

NISSHIN FLOUR MILL KK 21.07.76-JP-086057

(29.08.81) *J53012-899 C11b-01/10

21.07.76 as 086057 (62RH)

The plant is pulverised to powder of size 50-100 mesh which is formed into pellets having a hardness of 0.1-10 kg/cm². The pellets are then subjected to extrn.

Efficiency of extraction is excellent compared with conventional methods in which plant material to be extracted is not pulverised or is pulverised as minutely as possible. The method can be applied to leaf, seed, skin, stem, root, bulb, etc. plants with leaf being pref. The pellets are pref. porous and cylindrical in shape. Their dimension is pref. 2 mm dia. x 2 mm (J53012899) (4pp)

AJIN D23 82364 B/17 = J8 1037-77
Oil and fat compsn. for coating rice cake - contains vegetable oil palm oil and lecithin

AJINOMOTO KK 23.08.77-JP-100789

(02.09.81) *J54035-244 A23g-03 + A23l-01/24

23.08.77 as 100789 (5JB)

Compsn. is composed of over 40 w/w% liquid vegetable oil such as rice oil, corn oil, cotton seed oil, rapeseed oil, soybean oil etc. under 60 w/w% palm oil (including fractionated liquid palm oil) and 0.1-2 w/w% lecithin (esp. soy-bean lecithin).

The compsn. has excellent preservative stability, imparts good taste, flavour and body to rice cakes and maintains brilliance of rice cakes even in the winter. (J54035244) (4pp)

INFL D23 30925 W/19 = J8 1037-784
Cis-2-methyl-3-pentenoic acid from methyl acetylene - for use in aroma and fragrance compsns

INT FLAVORS & FRAGR INC 22.07.74-US-490717 (23.10.73-US-408854)

E17 + P15 (D13 D18) (02.09.81) *DE2446-826 A23l-01/22 A24b-03/12 A61k-07/46 C07c-57/02 C11d-09/44

23.10.74 as 121556 (JB)

High i.e. over 50wt.% cis-2-Me-3-pentenoic acid (I) is pref. prepd. by (a) reacting MeCCH with a MeMg halide, e.g. at 40-60 deg. C in an inert solvent for 4-12 hrs. (b) reacting the MeCCH-Mg halide Grignard reagent obtd. with AcH to form a 3-pentyn-2-ol-Mg halide salt which is (c) hydrolysed, (d) halogenating the 3-pentyn-2-ol obtd. esp. with PCl₃ at 20-25 deg. C., (e) reacting the 4-halo-Mg halide-2-pentyne-Grignard reagent which is (f) reacted with CO₂ to form an Mg halogen-carboxylate salt mixt. Me-CCHMe-COOMgX and MeCH=C=CMe-COOMgX, (g) hydrolysing e.g. with HCl at 20-30 deg. C to form a mixt. of (i) 2-Me-3-pentynoic acid and (ii) 2-Me-2,3-pentadienoic acid, e.g. in (i):(ii) ratio of 3:1 and (h) hydrogenating with H₂ in presence of a Pd catalyst to form a mixt. contg. approx. 80% (I) and 20% 2-Me-2-pentenoic acid.

(I) is used in modifying organoleptic properties of a perfume compsn. a perfumed article, (e.g. soaps, detergents, or cosmetics), food aroma or fragrance compsn. foods or tobacco and imparts a sweet, green sharp strawberry character. (J50070534) (11pp)

MEIT D23 30182 Y/22 = J8 1037-797
Menthol rich in L:menthol - prepd. by reacting fatty acid and racemic menthol with an esterase and hydrolysing the resulting menthyl ester

MEITO SANGYO CO KK 22.10.75-JP-126375

B05 E15 (D16) (02.09.81) *J52051-095 + C12p-07/02 C12r-01/08

22.10.75 as 126375 (104BL)

Menthol rich in L-menthol is prepd. by reacting a mixt. of 4-18C fatty acid and racemic menthol with an esterase for esterification to afford menthyl ester rich in L-menthyl ester and hydrolysing the menthyl ester.

The esterase is lipase. Reaction is at 25-75, pref. 30-60 deg. C. Mole ratio of racemic menthol and fatty acid is 1:0.5-2.0, pref. 1:0.75-1.0. (J52051095) (5pp)

TOXW D23 11511 A/06 = J8 1037-866
Adsorbent material comprising alkyd resin and melamine resin - produced by coating support e.g. aluminium plate with the resin materials soln. and curing

TOYO INK MFG KK 23.06.76-JP-073315

A97 J01 (A21 A23) (02.09.81) *J52156-792 C11b-03/10 + B01j-20/26 C02f-01/28 C07c-07/12

23.06.76 as 073315 (43BL)

Adsorbing material comprises alkyl-melamine resin the wt. ratio of alkyd resin:melamine resin being 1:9 to 9:1. The adsorbent is in the form of porous material, supported by glass beads, styrene beads, aluminium plate, steel plate galvanised with tin, chromated steel plate and stainless steel plate, and is produced by coating the surface of the support with a soln. of alkyd melamine resin and effecting a curing thereof.

The alkyd resins are e.g. those from polybasic acids, oils and fatty acids, and polyhydric alcohols, having acid value 3-6, oil length 30-40% and M.W. 3000-6000. The melamine resins are e.g. butylated melamine or a condensn. prod. of butylated melamine and benzoguanamine, having a butylation degree 1.5-2 and M.W. 1200-2000. Curing is effected for 8-15 min. at 170-220 deg. C

The adsorbing material can adsorb ordinary substances and

those with M.W. less than 600, and has improved adsorption in the presence of water, and desorbs easily by contacting with n-butanol, n-pentane, nitrogengas, etc. It is used directly for removal of lower M.W. cpds. e.g. from waste water, and is applied on the inner side of the vessels to form adsorbent to purify fats and oils by removing free fatty acids, etc. (J52156792) (3pp)

KALU = ★ D23 71125 D/39 ★ SU-791-728
Prod'n. of iso-eugenol for perfumery use - by isomerisation of eugenol in presence of iron penta:carbonyl at elevated temp.

KALUGA PERFUMERY IN(SYNT=) 01.12.78-SU-690873
E15 (30.12.80) B01j-31/20 C07c-41/32 C07c-43/21

01.12.78 as 690873 (938GW)

Isoeugenol, useful in perfumery as aromatic principle, is prepd. by high temp. catalytic isomerisation of eugenol in the presence of iron carbonyl. The process is simplified and the prod. yield is increased by conducting isomerisation of eugenol at 150-200 deg.C. (pref. 175-180 deg.C.) in the presence of 1-3.5 wt.% (pref. 1.5-2.5 wt.%) iron pentacarbonyl catalyst.

The yield of the final prod., comprising cis- and trans-isomers in 1:9 ratio, is 89-96% using cheap industrial prod. as catalyst. Bul. 48/30.12.80. (2pp)

SYNT = ★ D23 71133 D/39 ★ SU-791-736
Linalyl acetate prepn. for perfumery cosmetic applications - by acetylation of lavender oil contg. linalool with acetic anhydride

SYNTH NATURAL PERFU 10.07.78-SU-643163

E17 (D21) (30.12.80) C07c-67/08 C07c-69/14

10.07.78 as 643163 (114VE)

Prepn. of linalyl-acetate (for perfumery-cosmetic industry) from lavender ester oil by acetylating with acetic anhydride in toluene medium and sepg. out by rectification increases yield (by 13-15%), simplifies technology (by halving number of stages), and lowers waste water prodn. by directly acetylating lavender oil contg. linalool.

Typically, 350 kg. lavender oil (contg. 49% linalyl acetate and 31% linalool) are added to acetylation mixt. (of compsn. (kg): toluene 246; 98% acetic anhydride 193; soda ash 0.4) to give (after distn.) 362 kg. acetylated lavender oil (yield 103 wt.%; ester content 72.8%). Vacuum rectification gives overall yield of linalyl acetate 53% by wt. (66% on linalool and linalyl acetate). Bul. 48/30.12.80. (4pp)

METG ★ D23 71592 D/39 ★ US 4288-297
Rectification of miscella extracted from oleaginous seeds - using evapn. system of evaporators, rectifiers and stripping column

DRAVO CORP 14.04.80-US-140151 (26.11.76-US-745397)

(08.09.81) B01d-03/14

14.04.80 as 140151 (478BZ)

A miscella contg. dissolved carbohydrate and obtd. by extracting oleaginous seed material with alcohol (I) soln. is distilled to recover a dil. (I) soln. and a concn. (I) soln. by: (a) the miscella is passed to a 1st vapour/liq. sepn. zone (SZ-1); (b) a liq. stream is withdrawn from SZ-1 and heated and returned, (c) a vapour stream is withdrawn from SZ-1 and passed to a rectification zone (RZ-1); (d) the vapour stream (c) is contacted in RZ-1 with a liq. stream to separate a lower b.pt. component from the liq. stream, (e) a vapour stream is withdrawn from RZ-1, (f) the vapour stream (e) is condensed, (g) a portion of condensate (f) is passed to RZ-1 as the liq. stream in (d); (h) the remainder of the condensate (f) is recovered as a concnd. (I) soln. (i) a net liq. stream is withdrawn from SZ-1 and passed to a 2nd vapour/liq. sepn. zone (SZ-2), (j) a liq. stream from SZ-2 is withdrawn and heated and returned, (k) a vapour stream is withdrawn from SZ-2 and passed to a 2nd rectification zone (RZ-2), (l) the vapour stream (k) is contacted in RZ-2 with a liq. stream to separate a low b.pt. component from the liq. stream, (m) a vapour stream is withdrawn from RZ-2 and condensed to afford a concn. (I) soln., (n) a set liq. stream is withdrawn from SZ-2 and passed to a stripping zone, (o) the liq. stream in the stripping zone is contacted with a vapour stream to separate a low b.pt. component from the liq. stream; (p) a vapour stream from the stripping zone is withdrawn and condensed as a dil. (I) soln. and (q) a liq. bottoms stream (contg. not above 30% by wt. carbohydrate) from the stripping zone is withdrawn.

Method is esp. useful for distn. of miscell. (partic. those obtained by extra soyabeans with aq. (I) solns.) to recover the (I) solns. and a solvent-free aq. whey soln. (7pp)

NAAR D23 87603 C/21 = US 4288-349
3,3-Dimethyl-bis:cyclo(2.2.1)-heptane-2-carboxylic acid - used as perfume base e.g. in synthetic ethereal oils

NAARDEN INT NV 03.11.78-NL-010966

E15 + P34 (08.09.81) *NL7810-966 A231-01/22

03.11.78 as 010966 (0311B)

olibanum.

Pref. the compsn. contains other fragrances and opt. auxiliary agents and solvents, e.g. ethanol, isopropanol, diethylene glycol monoethylether and diethyl phthalate. The prod. is prepd. by the oxidn. of a camphene soln. in a lower-alkyl formate with H₂O₂ soln., and separating the endo- and exo-isomer mixt. formed.

The prod. can be used in many perfume compsn. in the form of e.g. soaps, washing agents, air refreshers and room sprays. (3pp)

POLA D23 45829 A/26 = US 4288-350
Substituted delta:valerolactone(s) - useful scent modifiers in perfumes for soap, shampoo, cosmetics etc.

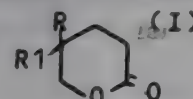
POLAK'S FRUTAL WORKS INC 23.12.76-GB-053707

E15 (08.09.81) *BE-862-229 A61k-07/46 C11b-09

26.03.80 as 134010 (+ 7.12.77-US-858502) (931JB)

A fragrance compsn. comprises an odour-modifying amt. of a subst. delta-valerolactone of structural formula (I), where R and R₁ are opt. the same alkyl or alkenyl gp. The compsn. further comprises other olfactorily active materials. Pref. the R gps. each contain 1-8C having a total of 3-10C between them. The compsn. incorporates (I) into a suitable carrier.

The valerolactone prod. is esp. delta-ethyl gamma-n-butyl delta-valerolactone, and is used to provide a synthetic material having an odour reminiscent of costus oil. (3pp)



ARUT/ ★ D23 71625 D/39 ★ US 4288-377
Purification of wool grease - by mixing hydrocarbon solvent grease micelle alcohol with water-alkali-alcohol blend

ARUTJUNIAN S 27.06.80-US-163739

(08.09.81) C07j-09 C11b-01/10

27.06.80 as 163739 (478BZ)

Wool grease is purified as follows: (a) the grease miscelle (I) in a hydrocarbon solvent is mixed with an alcohol with hydrocarbon alcohol ratio 10:1-4; (b) the free fatty acids in the (I) mixt. are neutralised by dispersing the mixt. in a 60-75:2-5:20-35 blend of H₂O:alkali:alcohol; and (c) the phases are allowed to settle and are then sepd.

Step (a), hydrocarbon solvent is pref. hexane; alcohol is pref. PrOH. Miscelle pref. has grease concn. 10-40% by wt.

Simple process avoids saponificn. of neutral grease and give higher yields of higher quality lanolin. (3pp)

BADI D23 04092 D/04 = US 4288-63
Citral perfume prepn. by 3-methyl-butenal di:prenyl acetate pyrolysis - while continuously distilling off prenol by/product to increase yield

BASF AG 30.06.79-DE-926562

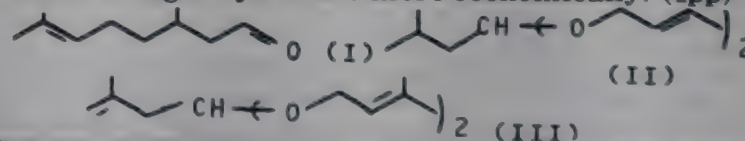
E17 (08.09.81) *EP--21-074 C07c-45/51 C07c-47/21

10.06.80 as 158346 (982PW)

Prepn. of citral of formula (I) comprises heating an acetal formula (II) or (III) in the presence of an acid catalyst.

Improvement comprises carrying out the reaction at 100-150 deg.C in the presence of 0.1-10 mole %, based on (II) and (III), an inert liq. which under the reaction pressure boils at a high temp. than 3-methyl but -2-en-1-ol (prenol) but at a lower temp. than (I), 2,8-dimethyl-5-oxa nona- 1,3,7-triene cpd. 2,4-trimethyl-3-formyl-hexa-1,5- diene while continuously distilling off the prenol eliminated over a fractioning column, at the top of which a pressure of 40-140 m bar is maintained.

(I) is obtd. in higher yield and more economically. (4pp)



POUE D23 53863 B/29 = US 4288-
Prepn. of 2,4-di:nitro-6-tert. butyl-3-methyl-anisole - by nitrat 3-methyl-6-tert. butyl-anisole with a mixt. of acetic acid, acetic anhydride and nitric acid

POUDRES & EXPLOSIFS 29.12.77-FR-039625

E14 (08.09.81) *NL7812-475 + C07c-41/18

19.02.80 as 122476 Div ex 4236029 (+ 18.12.78-US-970139) (982PW)

Synthesis of 2,4-dinitro-6-t butyl-3-methyl anisole (I) comprising reacting 3-methyl-6-t butylanisole (II) with a ternary nitrate mixt. of acetic anhydride, acetic acid and nitric acid at 100-150 deg.C. The nitrating mixt. consists of 30-50 wt.% acetic acid, 30 wt.% acetic anhydride and 25-45 wt.% nitric acid. (II) recovered as a ppte. by introducing the crude reaction mixt. slowly and while stirring, one or more small amts. of water which are less than 100 (25-100) wt. % of the amt. of nitrating mixt. used.

(1), brown as musk ambrette, is obtd. in improved yield and purity using less harsh nitrating bath and lower reaction temp.

D24: SOAP; SOAP DETERGENTS

See

D21 SU 793383

D25: OTHER DETERGENTS

AQUA- ★ D25 69977 D/39 ★ DE 3007-670
Detergent-free laundering of textiles - using aq. soln. of bromide or bromic acid and ozone

AQUANORT SKIRDE CO 29.02.80-DE-007670

(17.09.81) D06f-43/08

29.02.80 as 007670 Add in 3017753 (1411KB)

A closed-circuit washing machine for textiles tumbles the articles in a cold, aq. soln. of bromides or bromic acid and ozone. The used liquor is returned to the reservoir from which the washing vessel is supplied, whence it is returned to the vessel for re-use after filtration and replenishment of the cleaning agents.

The quality of the water is monitored by redox-potential sensors which control the addition of bromides and ozone, and terminate the washing process when the maximum potential is restored.

The liquor requires no heating, giving considerable economies in energy consumption and washing-time. Water consumption is reduced to a minimum, and waste liquor is eliminated, preventing environmental pollution. (16pp)

FARH D25 40739 B/22 = DS 2860-759
Crystalline zeolite and sodium triphosphate mixt. prepn. - by simultaneously spray-drying zeolite and sodium orthophosphate solns. or dispersions

HOECHST AG 17.11.77-DE-751354

E33 (E34) (17.09.81) *DE2751-354 C01b-25/30 C01b-33/28 C11d-03/06 C11d-11/02

04.11.78 as 860759 Based on EPG002018 (922WB)

Mixts. of crystalline zeolites (I) and sodium triphosphate (II), useful as builders for low phosphate detergent are produced more economically, are finely divided, have good flow properties and are storage stable by spray drying aqs. suspensions contg. (II) in a chamber which receives (I) at the same time using Na orthophosphate solns. or suspensions in which, relative to the theoretical Na:P molar ratio of 1.66 for zeolite-free (II), the Na:P molar ratio is reduced by 0.01 for every 10 wt.% part of (I) in the end prod. The spraying is done from separate nozzles and at such a distance that the spray cones which contact each other consist of superificially dry (I) particles and at least partially condensed (II) particles. (5pp)

FARH D25 79391 B/44 = DS 2960-395
Colourless tetra:acetyl-ethylene di:amine prepn. - by di:acetyl ethylene di:amine acetylation with acetic anhydride opt. with ketene addn.

HOECHST AG 21.02.79-DE-906606 (14.04.78-DE-816174)

E16 (17.09.81) *EP---4-919 C07c-102

06.04.79 as 960395 Based on EPG004919 (922WB)

N,N,N',N'-tetracetyl-ethylene diamine (I), a useful perborate activator in detergent compsns. is produced in higher yields (typically over 97%) and purity by (1) reacting N,N'-diacetylene diamine (II) with acetic anhydride at 120-170 deg.C in a wt.ratio of 1:1-10, (2) stopping the reaction before reaction equilibrium between (II) and (I) is attained, (3) subjecting the brown reaction mixt. either before or after separation of (I) by crystallisation to a purifying operation (pref. with adsorbent bleaching earth or active (c) and (d) recycling the purified and recovered reaction components not completely reacted to the acetylation stage (1). (9pp)

UNIL D25 27740 C/16 = DS 2960-405
Particulate alkaline detergent contg. mixed phosphate builders - and anionic polyelectrolyte to minimise deposition of machine surfaces or fabric

UNILEVER LTD 03.10.78-GB-039071

A97 E34 (17.09.81) *EP---9-954 C11d-03/06

01.10.79 as 960405 Based on EPG009954 (945WB)

Particulate alkaline detergent compsn. comprises 2.5-50 wt.%

synthetic anionic, nonionic, amphoteric or zwitterionic detergent cpd., mixed phosphate detergency builders and other known ingredients. At least 5 wt.% water-soluble alkali metal polymer phosphate (I) of formula $M_2O-(MPO_3)_n$ (where M is alkali metal and n is at least 4); at least 2 wt.% alkali metal orthophosphate (II); and 0.01-10 wt.% antideposition agent (III) which is an anionic polyelectrolyte are present.

Wt. ratio of (I):(II) is 10:1-1.5 and (I) + (II) forms 10-40 wt.% of the compsn. Not more than 10 wt.% of other alkali metal phosphate builders are present. Pref. (II) is Na_3PO_4 , Na_2HPO_4 or NaH_2PO_4 and forms 5-15 wt.% of the compsn. (III) is e.g. Na polyacrylate or an organic phosphinic acid (salt). Good detergency building properties are provided while the level of inorganic deposits formed on laundry and washing machine surfaces is reduced. (11pp)

JEYE- ★ D25 70417 D/39 ★ GB 2071-688
Thickened toilet bowl cleaning and descaling compsns. - contg. inorganic acid, and amine or amine oxide with cationic or nonionic surfactant as thickener

JEYES LTD 13.03.81-GB-007976 (13.03.80-GB-008469)

A97 E19 (23.09.81) C11d-03/02

13.03.81 as 107976 (478RH)

Thickened aq. soln. of an inorganic acid or an acid salt of a strong inorganic acid contains as thickening agent a mixt. of (a) an acid-insol. amine RR_1R_2N (I) or amine oxide RR_1R_2N-O (II); and (b) an acid-soluble cationic or nonionic surfactant (III) (where R is long chain alk(en)yl; R_1R_2 are H, alkyl, aryl, aralkyl or alkaryl).

Compsns. are stable, and are esp. useful for cleaning and descaling lavatory bowls.

In (I) and (II), R pref. contains at least 6C, pref. 8-24C (R may also be aryl, aralkyl, or alkaryl); pref. alkyl in R_1R_2 have 1-4C but esp. are Me. In the compsn. amt. of each of (a) and (b) is 0.1-10% pref. 0.4-5% by wt. of compsn. The inorganic acid (or salt) is pref. HCl. Pref. cationic (III) are $RR_1R_2R_3N(+)X(-)$ (R_3 is alkyl (pref. 1-4C esp. Me), aryl, alkaryl or aralkyl; X is anion). Pref. nonionic (III) are polyalkoxylated surfactants contg. at least 6, pref. at least 12, alkylene oxide units/mol. Opt. compsns. may also contain perfumes, germicides and colours. (4pp)

MORI/ ★ D25 70544 D/39 ★ J5 6099-300
Liq. detergent compsn. - prepd. by adding alkylbenzene sulphononic acid to fatty acid, adding e.g. ethylene glycol

MORI Y 10.01.80-JP-001961

E19 (E34) (10.08.81) C11d-11/04

10.01.80 as 001961 (126AS)

At least 1 straight or branched chain alkylbenzene sulphononic acid is added to at least 1 fatty acid. Monobutylether, monoethylether and/or monomethylether of ethylene glycol is/are added, followed by heating. Prod. is saponified with soluble alkali and neutralised. Anionic, nonionic and/or amphoteric surface active agent is added. (M)ethyl alcohol and/or other alcohol, together with sodium meta silicate, at least 1 other silicate or Glauber salt.

Generation of acidic soap is retarded. The dil. soln. of the detergent is prevented from becoming turbid and decrease in detergency due to the formation of acidic soap is avoided. Generation of coarse particles of the metallic soap is prevented. Since no P cpd. is used, there is no danger of causing eutrophication or other pollution. (5pp)

HENK ★ D25 71079 D/39 ★ NL 8102-232
Manual washing-up compsn. contg. sulphonate or sulphate - with sulphated alkoxyated sec. alcohol, giving increased cleaning power

HENKEL KG AUF AKTIEN 07.05.81-NL-002232 (02.06.72-DE-228988)

E19 (01.09.81) C11d-01/12

07.05.81 as 002232 Div.ex.7306270 (510)

A dish-washing and cleaning compsn. for manual washing of dishes consists of (a) 20-90 (80-90) wt.% of an alkane sulphonate, alkene sulphonate, alpha-sulpho-fatty acid ester, sulpho-succinic acid ester, alkylbenzene sulphonate or alkyl sulphate with chain length 8-20C, and (b) 80-10% of a sulphated conversion prod. of a 6-22C sec. alcohol with 1-30 mols. of propylene oxide and/or ethylene oxide.

(a) 10-20C Alkene sulphonates, and alkylbenzene sulphonates with chain length 10-14C are claimed. The sulphonates are pref. used as alkali metal, ammonium or amine salts. (b) Sulphated conversion prods. of 10-18C sec. alcohols alkoxyated with 1-6 mols. of propylene oxide and/or ethylene oxide are claimed.

The cleaning powder of the compsn. is higher than that of (a) alone. The compsn. can also be used to clean tiles, table surfaces and metal covers. (7pp)

FATS = ★ D25 71273 D/39 ★ SU-793-649
Atomiser for suspension of synthetic washing cpd. - contains nozzle with spherical inlet and spray valve nut with wide conicity of outlet

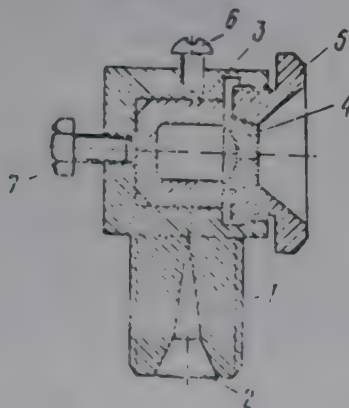
FATS RES INST 27.09.78-SU-668594

J08 P42 (07.01.81) B05b-01/34

27.09.78 as 668594 (135VE)

Uniform spray of atomised suspension of synthetic washing compound in the drying column, and improved granulometric compsn. of the prod. are ensured if the atomiser head consists of a shell (1) with tangential inlet channel (2) lined up with inlet opening in turbulence chamber (3), which is fixed in shell (1) by set screws (6,7).

The spray valve nut (5) presses the atomising nozzle (4) with spherical inlet to the turbulence chamber. The outlet of the spray valve nut is conical in shape with conicity amounting to 84-94 deg. The length of the turbulence chamber (L) and distance between the point of intersection (L1), the chord of spherical surface of nozzle (4) with central axis of the jet, and the pt. of emergence of the suspension from the nozzle, should be connected by relation $L/L1/1.0-2.6$. Bul. 1/7.1.81. (2pp Dwg. No. 1)



HENK D25 17690 D/11 = US 4288-225
Detergent compsn. for textile washing using soft water - comprising aq. dispersion contg. soap-forming fatty acid and aq. soln. contg. alkali and sequestering agent

HENKEL KG AUF AKTIEN 18.08.79-DE-933579

A97 E19 (E34) (08.09.81) *EP--24-340 + C11d-09/34 C11d-10/04 C11d-17/08

04.08.80 as 174560 (982PW)

Soiled textiles are washed by adding a washing agent consisting of two components (I) and (II) to an aq. washing liquor contg. the textiles so that the total amt. of all active washing ingredients is 2-8 gm/litre of wash liquor, agitating the textiles, draining and rinsing the textiles.

(I) is an aq. dispersion of 15-35 wt.% 12-18C fatty acids contg. 60-100% oleic acid, 2-6 wt.% KOH and 2-6 wt.% triethanolamine, the total being such that 50-95 wt.% of the acids are present as the soap, 4-10 wt.% of an ethoxylate, 4-10 wt.% of Na 10-14C alkylbenzenesulphonate, 0.05-1 wt.% of an alkali metal salt of substd. stilbenesulphonic acid optical brighteners, 5-15 wt.% of an alcohol and 35-50 wt.% water.

(II) is an aq. soln. of 5-12 wt.% Na and K tripolyphosphate, 0.5-4 wt.% 1-hydroxyethane-1,1-diphosphonic acid Na or K salt, 10-20 wt.% Na and K hydroxide, 0.5-3.5 wt.% alkali metal silicate, 0.2-5 wt.% sequestering agent and 50-70 wt.% water. Detergent has

sudsing rate. (7pp)

BURG/ D25 89423 B/50 = US 4288-255
Continuous vehicle washing process and appts. - with washing, treating, rinsing and blow drying stages

BURGER H 07.08.78-DE-834582

E16 Q17 + P43 (08.09.81) *BE-878-104 + B08b-07

19.11.79 as 085423 (+ 2.8.79-US-063170) (963PW)

In cleaning a car by washing using soapy water, prerinsing, final rinsing and drying by air stream, improvement comprises (1) mixing the prerinse water before use with a surface-tension increasing agent (I) to make car surfaces slightly hydrophobic; and (2) pouring the rinse water over car from overhead dispenser at atmos. pressure as a continuous film, the film running off the car without leaving drops behind. The dispenser has a downwardly extending curtain formed by filaments which contact the car at their lower edges, the rinse water being poured down the filaments.

Pref. prerinse water is aq. alcohol soln. in concn. of 0.2-0.5 wt.%. Pref. (I) comprises by wt. 5-15% dialkyldimethylammonium chloride with 12-16C; 4-10% of mixt. of prim., sec. and tert 6-12C amines; 8-20 wt.% solvent; 2-5% defoaming oil; and 1-5% scent.

Method permits use of a lower capacity drying blower. (5pp)

HENK D25 27628 D/16 = US 4288-339
Spray-cleanser for textiles - contg. propellant, e.g. carbon dioxide, and ethoxylated alcohol mixt., aliphatic hydrocarbon and chloro-hydrocarbon(s)

HENKEL KG AUF AKTIEN 01.10.79-DE-939810

A97 E19 (08.09.81) *EP--26-422 C11d-01/68 C11d-03/44 C11d-17/08

15.09.80 as 187521 (965AS)

Pressurised aerosol spray cleaner (I) is for the spot treatment of textiles before washing. (I) comprises a pressurised container contg. 96.4-98 pts.wt. of spray cleaner compsn.(II) and 2-3.6 pts.wt. CO2 propellant. (II) comprises (a) 6-16 wt.% ethoxylated 6-10C alkanols and 6-10C alkenols, having on average 4-8 ethylene glycol ether gps; the satd. 8C alkanol content being at least 50 wt.%, (b) 6-10wt.% ethoxylated 12-18C alkanols and alkenols, having on average 2-4 ethylene glycol ether gps., the content of 16-18C alkanols is not more than 50 wt.%, (c) 6-10 wt.% ethoxylated 16-18C alkanols and alkenols; having on average 10-15 ethylene glycol ether gps, (d) 40-45 wt.% aliphatic hydrocarbons having boiling range 205-245 deg.C and (e) 10-35 wt.% of at least 1 chlorohydrocarbon, viz CH2Cl2, ethylenechloride, 1,1,1-trichloroethane and perchloroethane. (a), (b) and (c) amt. to 20-35 wt.% of (II) and (d) and (e) amt. to 65-80 wt.% of (II).

Halo formation due to the soil edge spreading through the textile is prevented. (4pp)

BENC D25 11963 B/07 = US 4288-340
Granulation products contg. polymerised phosphate and aluminosilicate - prepd. in nebuliser or rotating tube by spraying

BENCKISER J A GMBH 05.10.77-DE-744773

E37 (08.09.81) *BE-871-047 C02b-01/42 C11d-03/12 + C01b-33/28 C11d-11

02.10.78 as 947643 C.i.p 4171277 (+ 31.3.78-US-892209) (965AS)

Prodn. of an agglomerated compsn. comprises granulating a pulverulent mixt. of a polymer phosphate (I) and an ion-exchanging alkali metal aluminium silicate (II). The mixt. is then sprayed with water in a spray mixer or a rotary tubular mixer. The wt. ratio (I):(II) is 1-20:20-1. (I) comprises 5-100 wt.% highly condensed polymer phosphates of formula $Me(n+2)P(n)O(3n+1)$ and 95-0 wt.% tripolyphosphate. Me is alkali metal. n is 4-50. Pref. the mixt. also contains e.g. at least 1 of anionic surfactant, optical brightener, alkali metal metasilicates and foam inhibitor.

The compsn. is non-caking and free flowing, and of high abrasion resistance, it is a useful additive to e.g. washing, rinsing and cleaning agents. (9pp)

INTE- D25 34497 Y/20 = US 4288-388
Benzene polycarboxylic acids - useful for cleaning or bleaching textiles or hard surfaces

INTEROX CHEM LTD 18.11.75-GB-047372

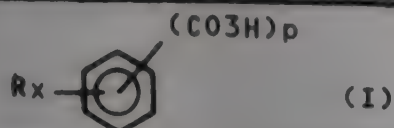
E14 + P42 (08.09.81) *BE-848-322 C07c-179/13

14.11.79 as 094052 Div.ex 4225451 (+ 6.5.76; 5.12.77-US-683656; 857602) (393AS)

Aromatic peroxy acids of formula (I) (where R is lower alkyl, Cl or NO2; x is 0-3 and p is 3-4 or anion of the cpd.) are novel and can be incorporated in detergent or bleaching compsns.

Specific cpds. are triperoxy trimellitic acid, triperoxy trimeric acid, triperoxy hemimellitic acid, tetraperoxy pyromellitic acid and tetraperoxypreritric acid.

(I) are esp. suitable for washing white fabrics or cleaning hard surfaces, esp. at 50-60 deg.C (5pp)



CHEM **D25** **60646 D/34 = US 4288-389**
 Sulphonic acid separation from paraffin sulfoxidation prod. - by
 extn. with aromatic alcohol and separation from alcoholic phase

CHEM WERKE HULS AG 08.02.80-DE-004651

E14 (08.09.81) *DE3004-651 C07c-139

01.12.80 as 211623 (393PW)

Process for sepg. sulphonic acids in untreated paraffin sulphonic
 soln. also contg. H₂SO₄, water and non-sulphonated paraffins
 comprises (a) admixing with the soln. at least 1 aromatic alcohol

of formula (I) R₁R₂R₃(C)_nOH (where R₁ is phenyl opt. substd. by
 halogen and/or 1-6C alkyl; R₂ and R₃ are H; n is 1-3 and R₂ is CH₃
 when n is 1) to form a mixt. having an upper layer of unreacted
 paraffin, a centre layer paraffin sulphonic acids and a lower
 layer of aq. soln. of H₂SO₄; (b) sepg. the centre layer; and (c) sepg.
 the aromatic alcohol from the centre layer to produce the
 sulphonic acids.

Pref. (I) is benzyl alcohol and 20-100 wt.% of the alcohol is
 mixed with the soln. The products obtd. are used for formulating
 detergents. (4pp)

See Also

D15 DS 2960403

- ADIB/ 14.03.80 ADIBISA B05 D13 = GB 2071-670
Nutritional soln. contg. di- or tri-peptide cpds. - 53481D/30
- AGEN 27.12.76 AGENCY OF IND SCI TECH B05 C03 D23 E14 = GB 1598-820
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- AGEN 08.11.77 AGENCY OF IND SCI TECH D16 = US 4288-550
Treating garbage-contg. dust - 50074B/27
- AGEN 05.10.78 AGENCY OF IND SCI TECH A91 D15 J01 M25 = J8 1036-852
Filter for removing heavy metals from aq. soln. - 37391C/21
- * AGEN 12.01.80 AGENCY OF IND SCI TECH D16 E17 *J5 6099-793
Pristanol prepn. from pristane contg. culture medium - 70645D/39
- AIRW- 02.09.77 AIRWICK AG D25 E37 = CH -624-711
Powdery carpet cleanser and deodorant compsns. - 24173B/13
- AJIN 23.08.77 AJINOMOTO KK D23 = J8 1037-770
Oil and fat compsn. for coating rice cake - 32364B/17
- AJIN 11.05.78 AJINOMOTO KK D13 = J5 4147-950
Prod'n. of soybean and/or soy protein prods. - 55142C/31
- AJIN 11.05.78 AJINOMOTO KK D13 = J8 1036-900
Prod'n. of soybean and/or soy protein prods. - 55142C/31
- AJIN 14.12.79 AJINOMOTO KK B05 D16 E16 #GB 2071-646
Fermentative prodn. of L-glutamic acid - 22791C/13
- AKER 09.05.77 AKERLUND & RAUSING A/B D11 = GB 1598-947
Aluminium foil lined baking tin - 84405A/47
- ALFA 30.11.79 ALFA-LAVAL AB D12 = DK 8005-078
Fish meal and oil centrifuge - 63598D/35
- * ALHA/ 04.03.80 ALHAUSER E D15 *DE 3008-208
Flow-through water desalination - 69998D/39
- ALKU 28.12.79 AKZO NV D17 = FI 8004-029
Regenerating sorbents with aq. alkaline soln. contg. sugar - 55414D/31
- ALKU 29.12.79 AKZO NV D16 E36 J01 = DE 2952-726
Filter aid, for clarifying beer - 51900D/29
- ALKU 11.01.80 AKZO NV B04 D16 S03 = FI 8100-054
Qualitative and quantitative immunoassays - 55418D/31
- ALLI/ 03.08.79 ALLISON G E D13 = ZA 8004-547
Expanded snack product prepn. - 12170D/08
- ALSO- 30.06.78 ALSO LAB SORBINIP B01 D21 #CA 1106-287
Agents for treating scalp and preventing hair loss - 50097A/28
- AMAN 12.12.79 AMANO PHARM KK B04 D16 E17 = DE 3044-786
Determin. of free fatty acids - 63137D/35
- AMAN 24.12.79 AMANO PHARM KK B04 D16 = DE 3048-824
Poly:amine oxidase AT-1 - 66825D/37
- AMCR- 12.10.79 AMER CRYSTAL SUGAR C03 D17 E13 (D13) = J5 6099-800
Pure fructose prepn. from sucrose materials - 34178D/19
- AMCY 28.02.80 AMERICAN CYANAMID CO C02 D13 = BR 8101-205
Bait for ants contg. pyrimidinyl-hydrazine insecticide - 66504D/37
- * ANGE- 18.02.80 INST ANGEWANDTE VIR B04 D16 *DD -149-159
Influenza virus sub-unit vaccine prodn. - 69913D/39
- ANIS 30.10.74 ANIC SPA D23 E19 = CH -624-661
Octene-nitrile derivs for perfumery use - 36385X/20
- ANVR 03.12.76 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24) = SU -793-383
Alpha-amino acid prodn. from amino nitrile - 38450A/22
- ANVR 14.09.77 AGENCE NAT VALORISA D13 = CA 1106-226
Foam-forming egg-white substitute for confectionery - 24207B/13
- APVC 15.02.80 APV CO LTD D14 = FR 2475-860
Heat treating particulate material - 62823D/35
- * AQUA- 29.02.80 AQUANORT SKIRDE CO D25 *DE 3007-670
Detergent-free laundering of textiles - 69977D/39
- ARMO 14.07.76 ARMOUR CO D14 = CA 1106-228
Pattie moulding apparatus - 03893A/02
- AROC- 21.08.78 ARO CORP A35 D22 (A92) #CA 1106-742
Heat sealing apparatus - 91328A/50
- * ARTE/ 11.05.78 ARTEMEV V P D15 *SU -793-944
Water-thermal-deaerator - 71376D/39
- * ARUT/ 27.06.80 ARUTJUNIAN N S D23 *US 4288-377
Purification of wool grease - 71625D/39
- ASAE 19.07.76 ASAH DENKA KOGYO D13¹ = J8 1037-767
Cocoa butter substitute for chocolate mfr. - 07742A/04
- ASAE 18.03.77 ASAH ELECTROCHEM D13 = J8 1037-768
Cacao butter substitute for use in chocolate mfr. - 82889A/46
- ASAH 10.07.74 ASAH CHEMICAL IND KK A97 D16 = J8 1037-789
Treating vegetable fermented beverages - 19366X/11
- ASAH 15.02.75 ASAH KASEI KOGYO K A88 D15 F01 J01 = DS 2606-244
Hollow synthetic fibres - 67300X/36
- ASAH 18.09.79 ASAH KASEI KOGYO A96 D16 = FR 2476-124
Suspended animal cells e.g. bone marrow tumour cells cultivation - 21757D/13
- * ASBI= 27.11.78 AS USSR BIOLOG EQUI D16 *SU -794-074
Micro-organism disintegrator - 71407D/39
- * ASMI= 27.11.78 AS USSR MICROORG BIOCHEM D16 *SU -794-074
Micro-organism disintegrator - 71407D/39
- AUTO- 25.05.76 AUTOMATED MEDICAL D15 M25 = J8 1037-877
Waste aqueous solutions treatment - 88476Y/50
- BABW 01.03.80 BABCOCK-BSH AG D25 E34 = DE 3007-988
Rotary drum converting ortho:phosphate(s) into tri:poly:phosphate(s) - 68192D/38
- BADI 10.09.76 BASF WYANDOTTE CORP A18 D25 G02 (A25 A97) = CA 1106-989
Aq. emulsions of solid polymers contg. hydroxyl gps. - 19664A/11
- BADI 30.06.79 BASF AG D23 E17 = US 4288-636
Citral perfume prepn. by 3-methyl-butenal di:prenyl acetal pyrolysis - 04092D/04
- * BAIL/ 12.05.81 BAILY G D22 *BE -888-776
Panty-napkin - 69867D/39
- * BALC- 24.05.79 BACHEM CORP A97 D13 *US 4288-460
Non-caking encapsulated hygroscopic food additives - 71654D/39
- * BALF- 05.02.80 BALFOUR H & CO LTD D18 J08 X25 *GB 2071-833
Vacuum drying appts. - 70457D/39
- * BAXT 31.01.79 BAXTER TRAVENOL LABS INC B04 D16 (B01) *US 4288-538
Determin. of total steroid(s) in samples also contg. conjugates - 71677D/39
- * BAXT 15.05.80 BAXTER TRAVENOL LABS INC B07 D22 *BE -888-786
Disposable skin dressing applicator for pre injection disinfection - 69870D/39
- BEEC 21.05.75 BEECHAM GROUP LTD B04 D16 = CH -624-713
Culturing animal cells in vitro - 90600X/49
- BEHW 18.07.75 BEHRINGWERKE AG B04 D22 = CH -624-579
Polyanionic solns. for erythrocyte preservation and kidney perfusion - 05978Y/04
- BEHW 10.09.79 BEHRINGWERKE AG B04 D16 = ZA 8005-560
Chromogenic peptide derivs. - 21810D/13
- BENC 18.08.77 BENCKISER-KNAPSACK D15 E11 F06 M14 (D25 F09) = CA 1106-843
Amino-alkane-carboxylic-di:phosphonic acid prodn. - 18188B/10
- BENC 05.10.77 BENCKISER J A GMBH D25 E37 = US 4288-340
Granulation products contg. polymerised phosphate and aluminosilicate - 11963B/07
- BENC 02.09.78 BENCKISER J A GMBH D15 E11 (D25) = DS 2960-403
Di:alkyl-ureido:methane di:phosphonic acid derivs. - 22183C/13
- * BETZ 08.09.75 BETZ LABS INC A97 D15 (A13) *US 4288-327
Scale inhibiting compsn. for water-contg. systems - 71604D/39
- BIOL- 20.11.79 BIOLEX CORP D22 H04 = BR 7909-053
Purificn. of liq. hydrocarbon(s) - 44050D/24
- BIOP- 11.01.80 BIOPHYS RES CONSULT D22 E19 K08 S05 #J5 6102-248
Sterilisation of surfaces esp. hospital equipment - 40028C/23
- BIOR- 09.04.73 BIO-RESPONSE INC B04 D16 S03 S05 (T06) = CH -624-712
Increasing antibody prodn by tapping lymph - 73309V/42
- * BISE- 08.03.80 BISEIBUTSU KAGAKU B03 D21 *EP --35-742
Homo-citric acid oligo:riboside derivs. - 70147D/39
- * BLOC/ 12.04.77 BLOCH M D22 *GB 1598-461
Device for emergency treatment of burns - 70309D/39
- BOEF 21.05.76 BOEHRINGER MANNHEIM GMBH D13 (D16) = J8 1037-799
Recovering protein having reduced nucleic acid content - 83067Y/47
- BOEF 30.12.76 BOEHRINGER MANNHEIM GMBH D13 J07 = CA 1106-686
Freeze drying granules of foods, drinks and pharmaceuticals - 47728A/27
- BOEF 27.12.79 BOEHRINGER MANNHEIM GMBH B04 D16 = J5 6099-791
Microbial glycerol dehydrogenase prodn. - 49937D/28
- * BONG/ 19.02.80 BONGARD P D11 *FR 2475-854
Bakery which simultaneously bakes loaves and special prods. - 70262D/39
- * BRAI- 10.03.80 BRAIBANTI & C SPA D13 *GB 2071-479
Prepn. of instant cooking alimentary pastes - 70348D/39
- BREV 24.12.77 BREVETEAM SA C03 D15 J04 K07 (D22 J01) = CH -624-607
Flexible stratified mass transfer element - 31612B/17
- * BRIG- 02.07.79 BRIGGS S & CO LTD D16 *GB 2071-693
Apparatus for discharging granular material - 70421D/39
- * BRIG/ 05.02.79 BRIGANTE M F D15 X27 (X25) *US 4288-323
Water purification unit for domestic heater - 71601D/39
- * BRIM 26.03.79 BRISTOL MYERS CO A96 D21 E17 *CA 1106-329
Low fogging aerosol antiperspirant - 69890D/39
- BRPE 01.05.78 BP NUTRITION UK LTD C03 D13 #US 4288-458
Liq. fish protein food prod. for pigs - 20321B/11
- BRTA 16.05.78 BRIT AMER TOBACCO LTD D18 = CA 1106-256
Tobacco smoke filter pref. for cigarettes - 71731B/40
- BRTA 08.03.80 BAT CIGARETTEN-FAB D18 = DE 3009-031
Aromatising agent mfr. from chlorophyll free alcohol tobacco extract - 70114D/39
- BRTA 08.03.80 BAT CIGARETTEN-FAB D18 = DE 3009-032
Aromatising agent prodn. from alcoholic tobacco di:terpene extract - 70115D/39
- * BRTA 08.03.80 BAT CIGARETTEN-FAB D18 *EP --35-683
Aromatising agent mfr. from chlorophyll free alcohol tobacco extract - 70114D/39
- * BRTA 08.03.80 BAT CIGARETTEN-FAB D18 *EP --35-684
Aromatising agent prodn. from alcoholic tobacco di:terpene extract - 70115D/39
- BRVI- 05.09.75 BRIT VINEGARS LTD D16 = CH -624-854
Separating water from aq. solns. esp. from vinegar - 16457Y/10
- BURG/ 07.08.78 BURGER H D25 E16 = US 4288-255
Continuous vehicle washing process and appts. - 89423B/50

- CALG 21.11.79 CALGON CORP D17 = J5 6099-799
Decolourising and de-ashing sugar liquor - 19154D/11
- CALP 11.01.80 CALIFORNIA PROCESSI D13 = US 4288-461
Mechanised de-stoning of fruit, partic. peaches and apricots - 87999B/49
- CALP-08.04.76 CALPIS SHOKUHI KOG D13 = CH -624-556
Acidic milk drink prepn. - 83945Y/47
- *CANI 25.05.79 CIL INC D12 *ZA 8003-104
Gland seal for stuffer horn - 71752D/39
- CARS-21.12.78 CARSON PRODS CO D21 E16 #CA 1106-288
Setting hair using guanidine hydroxide as active agent - 20330B/11
- CELA 06.02.80 CELANESE CORP D15 = NL 8100-401
Continuous treatment of effluent water contg. organic impurities - 60442D/34
- CELF-11.08.77 CELFIL CO D18 F09 = CA 1106-722
Mfr. of paper band for cigarette filter tips - 89704A/50
- *CENT-29.02.80 CENTREINAR D14 *BR 8001-195
Static drying unit for irregular and high moisture content products - D/39
- *CENT-29.02.80 CENTREINAR D14 *BR 8001-196
Solar energy for drying - D/39
- CESK 22.12.79 CESHOSLOVENSKA AKAD A91 D15 J01 M25 = DE 3047-852
Polymeric chelating agent - 53797D/30
- CESK 02.01.80 CESHOSLOVENSKA AKAD D13 J04 = DE 3049-414
Nickel-based catalyst e.g. for hydrogenating vegetable oils - 52130D/29
- *CHEF 11.03.80 GRUNENTHAL GMBH C03 D13 (D16) *EP --35-643
Dietic foods contg. plant polysaccharide - 70099D/39
- CHEM 06.12.78 CHEM WERKE HULS AG D23 E17 = EP G012-800
Butane-2,3-di:one prepn. by gas-phase iso:butanal oxidn. - 32830C/19
- CHEM 08.02.80 CHEM WERKE HULS AG D25 E14 = US 4288-389
Sulphonic acid separation from paraffin sulphoxidation prod. - 60646D/34
- CHIB-04.12.78 CHIBAYAKU GROCERIES D12 S03 X25 = US 4287-760
Determining fat content of meat - 45316C/26
- CHIN 18.02.80 CHINOIN GYOGYSZER A97 D13 = FR 2475-858
Flavouring tea using granules of suspensions - 47846D/27
- CIBA 02.04.76 CIBA GEIGY AG B03 D21 E13 (E12) = CH -624-672
Antibacterial (2)-mercapto-pyridine (1)-oxide derivs. prepn. - 74402Y/42
- CIBA 27.06.78 CIBA GEIGY AG C03 D22 E14 F06 = EP G006-600
Phenoxy:benzyl tetra:haloethyl-cyclopropane carboxylate cpds. - 03833C/03
- *CIBA 17.12.79 CIBA GEIGY AG C03 D22 E14 F06 *DE 3047-151
Phenyl-3-methyl-butyric acid benzyl-benzyl ester(s) - 70068D/39
- CIBA 21.12.79 CIBA GEIGY AG A60 C02 D22 E13 (D21 D23 D24 D25) = J5 6099-462
Heterocycl:thio-substd. hydroxy-acetophenone derivs. - 52016D/29
- CIBA 29.02.80 CIBA GEIGY AG D25 E12 F06 = BR 8101-231
Water-soluble aluminium or zinc phthalocyanine deriv. - 68330D/38
- *CIND-23.08.80 CINDAG SA D12 *BE -887-844
Off/loading live chickens from cages in road transport vehicle - 69846D/39
- *CLGE 06.05.80 COLLAGEN CORP D18 *US 4288-498
Thermal insulation material prodn. from leather scrap - 71666D/39
- CMPL 31.08.78 COMPT LYON-ALEMAND LOUYO D22 M26 = EP G008-975
Yellow gold dental casting alloy - 20702C/12
- CNRS 20.09.76 INST NAT SANTE RECH MED A96 D22 = CH -624-572
Bone substitute resorbable polymer - 23657A/13
- *COKE 10.03.80 COCA-COLA CO D17 *US 4288-551
Purificn. of sugar syrups by prim. flock flotation - 71682D/39
- COLG 13.12.74 COLGATE PALMOLIVE CO D22 E33 = CH -624-578
Dentifrices contg. alkaline alpha-alumina trihydrate - 36019X/20
- COLG 06.04.79 COLGATE PALMOLIVE CO D25 = ZA 8000-525
Detergent compsns. contg. zeolite and alkylbenzene sulphonate - 46266C/27
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E16 F06 = DK 8004-657
Carboxamide N-substd. with long-chain sec. aliphatic hydrocarb:yl gp. - 40484D/23
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E16 F06 = DK 8004-658
Di:alkyl urea substd. at both nitrogen atoms - 40483D/23
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E16 = DK 8004-659
N-Substd. methane-sulphonamide(s) - 30629D/17
- COLG 19.12.79 COLGATE PALMOLIVE CO B06 D21 E34 (E33) = J5 6099-408
Dentifrices which aid remineralisation of enamel - 30832D/18
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = DE 3046-842
Soap bars contg. anti cracking agent - 32609D/19
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = FR 2475-899
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = NL 8100-470
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = NL 8100-473
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42128D/24
- *COLL/15.02.80 COLLOMP P D16 *FR 2476-123
Skirt around access port in top of wine storage vessel - 70286D/39
- COMB-28.02.80 COMBE INC D21 E19 (E37) = BR 8101-196
Aq. compsn. for darkening keratin material - 68299D/38
- *COND-10.03.80 CONDUCTA GES MESS D15 J04 S03 *EP --35-788
Colloidal index determ. of liquids esp. water - 70174D/39
- CONO 04.02.80 CONOCO INC A25 D25 E19 F09 (A97) = NO 8100-196
Alkoxylation of alcohol using basic barium or strontium catalyst - 62566D/35
- COOQ 26.10.76 COOPER LABS INC B05 D22 E19 = CH -624-667
Antimicrobial bis-carbamyl guanidine cpds. prepn. - 19704A/11
- CORP 24.09.79 CPC INTERNATIONAL INC D13 = ZA 8005-495
Dehydrated tomato products - 25901D/15
- CORP 05.02.80 CPC INTERNATIONAL INC A97 D16 (D17) = NL 8100-565
Prepn. of immobilised glucose isomerase - 60948D/34
- CRDC 29.09.75 CORDIS CORP B04 D16 S03 S05 = CA 1106-281
Hepatis-associated antigen detection - 26491Y/15
- CRDC 10.06.77 CORDIS DOW CORP A32 D15 J01 (A88) = CA 1106-124
Moulding resin baffles at intervals along filamentary bundles - 89666A/50
- *CSTE-15.02.80 CIE GEN CONS TELGPH D15 *FR 2475-942
Water purifier using germicidal radiation from ultraviolet tubes - 70274D/39
- CTPR 03.02.78 COTTON INC C03 D13 E17 F09 (E13) #GB 1598-513
Chemical de:lintering cottonseed hulls - 45562A/25
- DAII-11.01.80 DAIICHI RADIOISOTOP B02 D16 S03 = J5 6099-484
2-Amino-4-hydroxy-pteridine derivs. - 05979D/05
- DAIK-27.03.78 DAIKO KIKAI KOGYO K D15 J01 = J5 4127-074
Rotary drum filter - 71068D/39
- *DAIK-27.03.78 DAIKO KIKAI KOGYO K D15 J01 *J8 1037-857
Rotary drum filter - 71068D/39
- DAIL 08.12.78 DAICEL CHEMICAL IND D15 J01 = US 4288-278
Membrane filtering element for reverse osmosis etc. - 06878D/05
- DANJ/15.01.80 DANJUSHEVSKAYA NE C04 D22 E32 G02 #FI 8000-116
Copper (i) oxide stabilisation - 55254D/31
- DECO-05.05.77 DECOFA KAFFEE-BEARBEIT D13 = CA 1106-222
Decaffeinating green coffee by solvent extraction - 63481A/36
- DEGS 29.06.73 DEUT GOLD & SILBER D15 J01 = J8 1037-166
Powdered molecular sieves of zeolite type - 03814W/03
- DEGS 07.09.73 DEUTSCHE GOLD & SILBER D15 J01 = CH -624-914
Cation exchanger aluminium silicates - 19560W/12
- DEGS 26.02.80 DEGUSSA AG D25 E33 = BR 8101-034
Crystalline zeolite powder having given particle size prepn. - 66303D/
- DEGS 26.02.80 DEGUSSA AG D25 E33 = BR 8101-035
Crystalline zeolite powder having defined particle size prepn. - 66304D/37
- DEGS 26.02.80 DEGUSSA AG D25 E33 = BR 8101-074
Crystalline zeolite A powder having defined particle size prepn. - 66302D/37
- *DEGS 13.03.80 DEGUSSA AG D21 M26 *DE 3009-650
Gold-free cobalt-chromium-palladium alloy - 70058D/39
- DENT-07.12.78 DENTAIRE IVOCLAR A96 D21 = US 4288-472
Evenly coating dental working model - 43477C/25
- *DERD/02.09.80 DERDERIAN E J D14 *US 4288-314
Appts. for sepg. clumping dried fruits - 71599D/39
- DESO-06.02.80 DESOWAG-BAYER HOLZ C03 D22 E15 = EP --35-625
Tree wound-sealing and-protecting agents - 60598D/34
- DEUS 18.12.79 DEGESCH GMBH D13 #FI 7903-975
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- DEUS 27.02.80 DEGESCH GMBH D13 #BR 8001-166
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- DIAP 29.04.77 DIA PROSIM FA A97 C03 D16 E13 (D17) = GB 1598-68
Metal contg. chelating resin - 80496A/45
- DIAP 29.04.77 DIA PROSIM FA A97 C03 D16 (A14 D17) = GB 1598-68
Chelating crosslinked acrylate resins - 80497A/45
- DIAP 00.00.80 DIA PROSIM FA A97 C03 D16 E13 (D17) = GB 1598-68
Metal contg. chelating resin - 80496A/45
- DIAS 13.11.79 DIAMOND SHAMROCK CORP A14 D14 F09 J01 (J0) = J5 6100-607
Recovery of solids from liquid medium - 38522D/22
- DIEP-16.03.77 DIEPAL SA D11 = CH -624-604
Double-screw extruder outlet for paste strips - 51657A/29
- DOJI-09.01.80 DOJIN KAGAKU KENKYU D16 E14 J04 S03 = J5 60454
N-Sulpho:alkyl-aniline derivs. useful as colour formers - 53595D/30
- *DOWC 09.03.78 DOW CHEMICAL CO D16 (D17) *CA 1106-302
Glucose isomerase prodn. - 69889D/39
- *DOWC 26.03.79 DOW CHEMICAL CO C03 D22 E14 *US 4288-296
Inhibiting decomposition of chlorinated phenol during distn. - 7159
- *EDON-04.03.77 EDONI REFRIGERATION D14 X25 *GB 1598-803
Foodstuff heat treatment and cooling appts. - 70332D/39
- EISA 27.12.75 EISAI KK D11 = CH -624-832
Wheat bread prodn. - 49073Y/28

- *ELEC 06.03.80 ELECTRICITE DE FRANCE D17 E17 J03 X25 *GB 2071-701
Electrochemical redn. of acid solns. of sugars - 70426D/39
- ELIL 08.06.79 ELI LILLY & CO B02 C02 D16 = US 4288-549
Antibiotic A-42355 obtd. by cultivation of *aspergillus nidulans* - 90140C/51
- ELIL 28.01.80 ELI LILLY & CO B04 C03 D16 = FR 2476-128
Narasin prepd. by cultivation of *streptomyces lydicus* strain - 56971D/32
- ENIE-01.02.80 ENI-ENTE NAZ IDROCA D16 (D17) = NL 8100-476
Alpha-galacto:oxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- *ENVI 07.03.80 ENVIROTECH CORP D15 J04 S03 *US 4288-229
Continuous determ. of total organic carbon in aq. halide solns. - 71558D/39
- *ENVI-20.10.78 ENVIRON SCI ASSOC D15 J03 M25 X25 *US 4288-303
Electrochemical process using earthed porous bipolar electrode - 71594D/39
- ESMI-05.02.80 ESMIL BV D15 J01 = NL 8000-704
Controlling liq. level in evaporation compartments - 60744D/34
- *ESMI-28.02.80 ESMIL BV D15 *BR 8101-256
Scraper for floating waste - D/39
- *ESMI-07.03.80 ESMIL BV D15 J01 *EP --35-812
Flotation sepn. of flocculated solids in liquid - 70181D/39
- ESPE 15.01.71 ESPE FAB PHARM PRAPARATE A96 D22 E32 = J4 7042-855
Self-curing compsn. - 49201T/31
- ESPE 15.01.71 ESPE FAB PHARM PRAPARATE A96 D22 E32 = J8 1037-209
Self-curing compsn. - 49201T/31
- ESSE-09.11.79 ESSEX LAAKKEET OY B03 C02 D16 = FI 8003-483
Macrolide antibiotics (NO 1.6.81) - 60702D/34
- ESSO 10.03.80 EXXON RES & ENG CO A85 D15 J03 L03 (X16) = BE -887-841
Electrochemical cells using non-selective membranes - 28954D/16
- *ESSO 10.03.80 EXXON RES & ENG CO D15 H03 *GB 2071-634
Removal of floating oil from water in a tank - 70387D/39
- ETLI/05.09.79 ETLIN V N D15 = EP --35-493
Appts. for biological treatment of water - 53168C/30
- *EUTE-20.12.79 EUTECO IMPIANTI D16 *US 4288-554
Continuous aerobic cultivation of yeasts - 71684D/39
- EWOS 02.04.79 EWOS AB A96 B04 C03 D22 = US 4288-428
Iodophor containing udder disinfectant - 77575C/44
- *EXTR-04.02.80 EXTRACO AB A97 D12 *SE 8000-876
Sausage skins - D/39
- FABR 20.02.80 FABRE P SA B04 D16 = FR 2475-900
Vaccine complex derived from ribosomal bacterial RNA - 68317D/38
- FARB 24.06.75 BAYER AG B02 C02 D13 (D22) = CH -624-958
Alpha-(imidazolidinone carbonylamino) penicillins - 03902Y/03
- FARB 12.03.76 BAYER AG C02 D22 E13 = SU -793-356
(4,5)-Dichloro-imidazole (2)-carboxylic acid derivs. - 65000Y/37
- FARB 09.02.77 BAYER AG D15 = CA 1106-301
Aeration of activated sludge by injectors - 60582A/34
- FARB 03.09.77 BAYER AG D18 = CA 1106-108
Chrome tanning of hides and pelts - 20218B/11
- FARB 27.10.78 BAYER AG C03 D21 E17 G04 = CA 1106-806
Propellant gas for e.g. hair sprays or insecticidal compsns. - 34868C/20
- FARB 07.03.79 BAYER AG D18 = EP G015-478
Spray-dried age-resistant chromium tanning agent - 67880C/39
- FARB 05.03.80 BAYER AG D15 F09 J01 = DE 3008-476
Flotation system and appts. - 68249D/38
- *FARF 18.02.80 CHEMIEKOMB BITTERF D22 E14 (E16) *DD -149-160
Air freshener based on para:di:chloro-benzene - 69914D/39
- FARH 01.04.77 HOECHST UK LTD A96 B07 C03 D22 (C04) = GB 1598-458
Tablets contg. microencapsulated active substances - 72723A/41
- FARH 05.08.77 HOECHST AG A97 D12 (A11 A14) = CA 1106-679
Cellulose hydrate hose used as sausage skin - 33689B/18
- FARH 02.09.77 HOECHST AG D21 E12 #SU -793-388
(2)-acyloxy-alkane-(1)-sulphonates prepn. - 79374Y/45
- FARH 17.11.77 HOECHST AG D25 E33 (E34) = DS 2860-759
Crystalline zeolite and sodium tri:phosphate mixt. prepn. - 40739B/22
- FARH 04.03.78 HOECHST AG D12 = DS 2960-393
Sausage meat filling device - 66505B/37
- FARH 14.04.78 HOECHST AG D25 E16 = DS 2960-395
Colourless tetra:acetyl-ethylene di:amine prepn. - 79391B/44
- FARH 14.12.79 SOC FRANC HOECHST A91 D15 J01 (A14) = DE 3046-978
Powdered cationic polyelectrolyte - 48286D/27
- FARH 03.03.80 HOECHST AG D25 E19 = DE 3008-054
Detergent compsn. builder combination - 68205D/38
- *FATS= 27.09.78 FATS RES INST D25 J08 *SU -793-649
Atomiser for suspension of synthetic washing cpd. - 71273D/39
- FELD-28.11.79 FELDMANN-CHEMIE KG D15 = DK 8005-048
Non-gelling liq. aq. inorganic flocculant compsn. - 42227D/24
- FINA-08.08.79 DEV FIN CORP N ZEAL A96 B04 C03 D16 (D13) = ZA 8004-833
Thermophilic Gram-negative bacteria *Thermus T-351* - 15965D/10
- FIND-29.09.77 PROD FINDUS SA D11 = CH -624-555
Pizza bottom mfr. - 28140B/15
- FIRM 18.09.79 FIRMENICH SA D13 E17 = EP --35-508
Flavouring of fooduffs with unsatd. ketone - 29016D/16
- *FIRM 21.12.79 FIRMENICH SA D13 E13 *DE 3048-031
Substd. mono:- and bi:cyclic pyrazine prepn. - 70073D/39
- *FLUX-03.03.80 FLUX YANG SOC CIV D16 S05 *EP --35-932
Field of permanent magnet applicator adjusts yin and yang - 70231D/39
- *FRAJ/05.03.80 FRAJDENRAJCH S B05 D21 *EP --35-919
Hair compsn. to prevent loss and encourage regrowth - 70228D/39
- FRAM 12.09.79 FRAM IND FILTER COR D15 J01 = ZA 8004-992
Solids separator for oil-water mixtures using spaced corrugated plates - 25914D/15
- *FRAT/15.02.80 FRATZSCHER W D18 E31 M25 *DD -149-204
Chrome leather sludge utilisation by oxidising gas plasma treatment - 69930D/39
- *FRAU 01.03.80 FRAUNHOFER-GES FORD ANGE A96 D22 *DE 3007-913
Freezing biological cell material - 69981D/39
- *FREU-12.01.80 FREUND SANGYO KK B07 D14 *J5 6100-623
Granule coating appts. - 70744D/39
- FRIE-10.02.79 FRIEDRICHSFELD GMBH D22 L02 = US 4287-616
Artificial ear bone - 61647C/35
- FRIT-19.09.79 FRITZSCHE DODGE OLC D23 E15 = EP --35-562
Substd. cyclic alcohol(s), fragrance cpds. - 29035D/16
- FUKO 12.01.74 FUJI OIL KK A88 D13 (A11 D12) = J5 0100-253
Protein membrane prepn. from soybean protein or casein - 71053D/39
- *FUKO 12.01.74 FUJI OIL KK A88 D13 (A11 D12) *J8 1037-772
Protein membrane prepn. from soybean protein or casein - 71053D/39
- FUKO 28.02.74 FUJI OIL KK D13 = J5 0117-954
Foodstuff prepn. similar to dried gourd shavings - 71054D/39
- *FUKO 28.02.74 FUJI OIL KK D13 *J8 1037-773
Foodstuff prepn. similar to dried gourd shavings - 71054D/39
- *FUKO 27.05.74 FUJI OIL KK D13 *J8 1036-898
Improving taste and flavour of sliced raw peanut - 71026D/39
- *FUKO 08.03.80 FUJI OIL KK A97 D16 (D13) *EP --35-883
Enzymatic transesterification of tri:glyceride mixt - 70208D/39
- GATR-10.05.77 GATRAN ANSTALT A35 D22 (A92) = US 4287-702
Sterilised thermoplastic film pack - 46115A/26
- GCSH-28.12.76 SHIKA G C KOGYO KK A96 D21 E33 (A21 A23) = J8 1037-184
High strength dental gypsum - 61075A/34
- GENM 18.04.77 GENERAL MILLS INC D13 = CA 1106-683
Shelf stable mix for butter substitute - 56261B/30
- GENM 18.04.78 GENERAL MILLS INC D13 #GB 1598-638
Storage-stable butter substitute compsn. - 40399C/23
- GENO 27.11.79 GENERAL FOODS CORP D13 #DK 7905-029
Flavoured food products, esp. coffees - 45124C/26
- *GETR-26.02.80 VEB GETRANKEKOMB LE D16 *DD -149-206
Elimination pollution caused by carbon di:oxide contg. air - 69932D/39
- *GILL 21.08.79 GILLETTE CO A96 D21 (A14) *US 4288-427
Sulphated hydroxy-ethyl:acrylate-alkyl acrylate copolymers - 71648D/39
- GIVA 16.03.73 GIVAUDAN L & CIE SA D13 E13 (D23) = J5 6099-769
4,7-Dihydro-2-(3-pentyl)-1,3-dioxepin - 53513V/29
- GIVA 04.08.77 GIVAUDAN L & CIE SA D23 E17 = EP G000-771
Tri:methyl-octanol(s) and di:methyl-nonanol(s) odorants - 12500B/07
- GLAX 22.03.77 GLAXO LABS LTD B04 D16 = GB 1598-457
Water soluble immunostimulating peptidoglycan material prepn. - 73900A/41
- GLAX 19.07.79 GLAXO GROUP LTD B02 D16 = ZA 8004-357
Antibiotic des:acetyl-cephalosporin C prodn. - 08062D/06
- GLAX 31.10.79 GLAXO GROUP LTD B02 D16 = DK 8004-599
Antibacterial cephamycin derivs. - 36694D/21
- GOOR 11.09.79 GOODRICH B F CO A14 C03 D15 (A97 D22) = EP --35-538
Absorbent copolymer from neutralised acrylic acid - 05755D/05
- GRAC 07.10.76 GRACE W R CO A60 B05 D21 E17 (B02 B03 E13 E16) = CH -624-919
Aq. solns. of alkali metal alpha keto carboxylate(s) - 08429A/05
- GRAC 18.11.76 GRACE W R CO A96 B04 D16 S03 (A25 S05) = CA 1106-300
Fixing protein, esp. enzyme, on polyurethane - 23384A/13
- *GRAM-19.05.80 BRODRENE GRAM A/S D14 *BE -888-820
Discharge conveyor for continuous freezing tunnel for food prods. - 69879D/39
- *GRAM-19.05.80 BRODRENE GRAM A/S D14 *BE -888-821
Vertical plate freezer for industrial prodn. of frozen food - 69880D/39
- *GROF/08.06.78 GROFF EI D11 *US 4288-463
Pretzels made from extruded dough strand - 71655D/39
- HAAS/27.02.80 HAAS F S D11 = BR 8100-918
Wafer baking compartment with lateral sealing strips - 64588D/36
- HAGE/23.08.79 HAGERDAL B A96 B04 D16 = GB 2071-672
Catalyst for biochemical conversions - 21419D/12
- *HAHN/27.02.80 HAHN L D13 *EP --35-676
Processing peanuts forming mash then dewatering - 70109D/39
- *HALH 09.05.77 HALL-THERMOTANK LTD D16 *GB 1598-673
Malting appts. suitable for tropical use - 70320D/39
- *HANN-28.06.79 HANNAFORD A & CO PT D13 *ZA 8003-850
Sepn. of almond kernels - 71762D/39

- * HANS/ 04.02.80 HANSON D R D11 *US 4287-801
Perforating english muffins to permit opening - 71503D/39
- HARV- 17.03.80 HARVARD COLLEGE B04 D16 = GB 2071-671
Optimisation of polypeptide prodn. by microorganisms - 55162D/31
- HAUS/ 01.02.79 HAUSSENER E D12 = EP G014-685
Animal fat extn. esp. from slaughterhouse waste - 60954C/35
- HAYB 02.09.70 KEN HAYASHIBARA D16 = J8 1036-915
Intracellular enzymes extn. from microorganisms - 28846V/15
- * HAYB 09.01.80 HAYASHIBARA BIOCHEM B03 D13 E13 *J5 6099-768
Steviol-glycoside prepn. - 70641D/39
- * HAYE/ 03.03.80 HAYER H D13 *DE 3008-119
Curd, soft, processed or heard cheese prepn. - 69991D/39
- * HENK 02.06.72 HENKEL KG AUF AKTIEN D25 E19 *NL 8102-232
Manual washing-up compsn. contg. sulphonate or sulphate - 71079D/39
- HENK 07.09.73 HENKEL KG AUF AKTIEN D15 J01 = CH -624-914
Cation exchanger aluminium silicates - 19560W/12
- HENK 18.08.79 HENKEL KG AUF AKTIEN A97 D25 E19 (E34) = US 4288-225
Detergent compsn. for textile washing using soft water - 17690D/11
- HENK 01.09.79 HENKEL KG AUF AKTIEN A97 D25 E19 = ZA 8005-342
Aq. tenside salt concentrate - 19695D/12
- HENK 01.10.79 HENKEL KG AUF AKTIEN A97 D25 E19 = US 4288-339
Spray-cleanser for textiles - 27628D/16
- HENK 29.11.79 HENKEL KG AUF AKTIEN D21 E14 (E13) = DK 8004-656
1-Substd. 2-hydroxy-propyl 2,4-di:aminophenol-ether(s) - 44402D/25
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = BR 8101-034
Crystalline zeolite powder having given particle size prepn. - 66303D/37
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = BR 8101-035
Crystalline zeolite powder having defined particle size prepn. - 66304D/37
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = BR 8101-074
Crystalline zeolite A powder having defined particle size prepn. - 66302D/37
- HENK 27.02.80 HENKEL KG AUF AKTIEN D23 E14 = BR 8101-174
Perfume compsn. contg. 2-phenyl-1 (2)-propenyl carboxylic acid ester - 68222D/38
- HETO 23.11.76 HETEROORG CPDS AS USSR D12 = CA 1106-220
Protein gel from fish and crustacea - 60881A/34
- * HIRT/ 22.02.80 HIRTE D11 *DD -149-153
Cracker cutting machine - 69911D/39
- * HITG 16.01.80 BABCOCK-HITACHI KK D15 J03 *J5 6100-609
Electrodialysis appts. for desalinating sea water - 70731D/39
- * HOFE/ 07.03.80 HOFER C D15 X15 *DE 3008-767
Power generation system - 70017D/39
- HOFF 23.12.76 HOFFMANN-LA ROCHE AG D22 S05 V01 X12 = GB 1598-817
Electrostatic cicatrization of (skin) wounds with electret dressing - 45803A/26
- HOFF 12.01.77 HOFFMANN-LA ROCHE AG B04 D16 K08 S03 (S05) = GB 1598-811
Antigen specific for breast cancer and derived antiserum - 51949A/29
- HOFF 12.08.77 HOFFMANN-LA ROCHE AG D23 E15 = DS 2860-753
2,2,4-Tri:methyl-cyclopent-4-en-1,3-di:one prepn. - 14605B/08
- HOFF 08.02.80 HOFFMANN-LA ROCHE AG B04 D16 S03 (S05) = NO 8100-423
Sample pretreatment for carcinoembryonic antigen assay - 62609D/35
- * HOLI/ 19.12.79 HOLINSKI W D15 J04 S03 *DD -149-261
In depth water sampler - 69959D/39
- HOND/ 10.07.76 HONDA T D16 = J8 1037-788
Mixed wine-sherry prepn. - 18765A/10
- * HUBE 03.03.78 HUBER J M CORP D15 E33 (E34) *US 4288-342
Spray dried inorganic water softening beads - 71613D/39
- HUBE- 10.09.76 MACH HUBERT W CO D15 = SU -793-374
Two/stage activated sludge purificn. of waste water - 17682A/10
- HYCO- 26.09.77 HYCOR CORP D12 = CA 1106-558
Doctor blade cleaning assembly - 29403B/15
- IATR 29.06.79 IATRON LABORATORIES B02 D16 J04 = J8 1036-920
Serum levels of uric acid determination - 20386D/12
- IBPI- 05.03.80 IBP IND BUITONI PER D13 = DE 3041-169
Foodstuffs contg. cheese and tomato - 19388D/12
- * ICHI- 11.01.80 ICHIMARU BOEKI KK D21 *J5 6099-406
Hair dressing compsn. - 70561D/39
- * ICIL 07.03.80 IMPERIAL CHEM INDS LTD C03 D16 (D13) *EP --35-831
Glutamate dehydrogenase gene contg. microorganism - 70190D/39
- IDEX 22.02.77 IDEMITSU IND KK A11 D17 = J8 1037-241
Cyclodextrin derivs. prodn. - 91860A/51
- * IMAB/ 14.01.80 IMABORIK B04 D16 *J5 6099-792
ATP-producing enzyme prodn. - 70644D/39
- * IMAR/ 07.01.80 IMARU T D13 *J5 6099-770
Soyyu-like seasoning prepn. - 70642D/39
- * INDF 26.03.79 INDIA COUNC OF SCI IND A88 D15 J01 *ZA 8003-750
Ultrafiltration membrane - 71760D/39
- INFL 23.10.73 INT FLAVORS & FRAGR INC D23 E17 (D13 D18) = J8 1037-784
Cis-2-methyl-3-pentenoic acid from methyl acetylene - 30925W/19
- INTE- 18.11.75 INTEROX CHEM LTD D25 E14 = US 4288-388
Benzene polycarboxylic acids - 34497Y/20
- ITWA 07.12.78 ITWA STATE UNIV RES INC B04 C03 D16 = EP G012-718
Intra:respiratory vaccine - 46771C/27
- * IRON- 19.07.79 IRON REMOVAL SPECIA D15 E31 *US 4288-328
Treatment of iron contg. waters - 71605D/39
- ITAF 28.02.80 ITALFARMACT A11 B04 D16 (A96) = GB 2071-669
Polysaccharide copolymer with enzymatic activity prodn. - 66258D/37
- * IVAN/ 09.04.79 IVANOV L V D22 *SU -793-863
Device for sterilising ship's aq. and solid effluents - 71361D/39
- * JACC/ 28.12.78 JACCARD A R D12 *US 4287-642
Meat tenderising by array of knives - 71476D/39
- * JADE- 02.08.79 JADE LEE ELEC PTY D15 X25 *ZA 8003-593
Automatic chemical dispensing appts. for swimming pools - 71756D/39
- JAGN 26.02.77 JAGENBERG WERKE AG D13 S02 = GB 1598-505
Pulsed dose metal for small volumes of liquids - 47786A/27
- JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 = NO 8100-366
Wood preserving and protection cpd. and antiseptic detergent compsr D/37
- JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 = NO 8100-367
Wood preserving and protection cpd. and antiseptic detergent compsr D/37
- * JAOR 10.01.80 JAPAN ORGANO KK A35 D15 J01 (A88) *J5 6099-649
Pressure dewatering belt prodn. - 70620D/39
- * JEYE- 13.03.80 JEYES LTD A97 D25 E19 *GB 2071-688
Thickened toilet bowl cleaning and descaling compsns. - 70417D/39
- JOHJ 31.08.77 JOHNSON & JOHNSON A81 D22 G03 (A11 A17) = CA 1106-526
Pressure sensitive adhesive compsn. - 29695B/15
- JOVA/ 21.07.76 JOVANOVIC D D14 = CA 1106-230
Steam cooking or sterilising oven with cylindrical housing - 08619A/05
- * KAGG 16.01.80 KAGAKU GIJUTSU-CHO KINZ D15 E34 J01 K07 *J5 6100-637
Ion exchange material for caesium removal - 70756D/39
- * KAGO- 28.09.78 KAGOME KK D14 *US 4287-821
A septic storage tank for semi-processed liquids - 71506D/39
- * KAKE 20.12.79 KAKEN CHEM KK B04 D16 *J5 6099-495
Antibiotic ka-3093 prepd. by culturing streptomyces strain - 70588D/39
- KAKE 15.02.80 KAKEN CHEM KK B04 D16 = FR 2476-127
Antibiotics actinomadura L-31A and L-31B - 62876D/35
- * KALU= 01.12.78 KALUGA PERFUMERY IN D23 E15 *SU -791-728
Prodn. of iso-eugenol for perfumery use - 71125D/39
- * KANE 08.03.80 KANEBO KK D21 E13 *GB 2071-494
Stable, clear, non-gelling liq. skin cosmetic compsn. - 70354D/39
- * KANE- 16.01.80 KANEBO KESHOHIN KK A96 D21 E01 *J5 6100-709
Photochromic nail varnish - 70770D/39
- KANF 21.08.73 KANEGAFUCHI CHEM KK D11 = J5 0046-868
Mfg. fat compsn. for icing - 71025D/39
- * KANF 21.08.73 KANEGAFUCHI CHEM KK D11 *J8 1036-897
Mfg. fat compsn. for icing - 71025D/39
- KAOS 09.01.80 KAO SOAP KK A96 D21 E16 (E16) = J5 6099-407
Hair rinse comprises quat. ammonium salt - 52121D/29
- KAOS 10.01.80 KAO SOAP KK A96 D22 = J5 6099-242
Porous flexible sheet - 60945D/34
- KAOS 14.01.80 KAO SOAP KK A60 D21 E16 F06 = J5 6099-274
Quat. ammonium antistatic agent, esp. for dry cleaning compsr 53794D/30
- * KAOS 21.01.80 KAO SOAP KK D22 E19 (E34) *J5 6102-251
Deodorant compsn. - 70995D/39
- * KAYA 11.01.80 KAYAKU ANTIBIOTIC RES B04 D16 *J5 6099-420
Immuno:potentiator compsn. for treatment of cancer - 70565D/39
- KEEF/ 28.03.77 KEEFER B G D15 = US 4288-326
Reverse osmosis water purificn. with pressurisation by reciprocating 79335C/45
- KEND 09.08.79 KENDALL CO D22 = ZA 8004-824
Sleeve applying pressure to leg of patient - 90176C/51
- * KEYW- 13.08.79 KEYWEST PTY LTD D14 *ZA 8003-771
Filter for cooling oils and fats - 71761D/39
- KIMB 01.07.77 KIMBERLY CLARK CORP A96 D22 (A25) = CA 1106-505
Polyurethane foam type tampon enclosed in jacket - 05446B/03
- KING- 07.09.79 KINGSDOWN MED CONSU A96 D22 = ZA 8005-066
Gas permeable dressing for wounds - 27684D/16
- KIRI 20.02.80 KIRIN BREWERY KK D16 = FR 2476-122
Low original gravity beers prodn. - 68501D/38
- * KITA 25.07.77 KITASATO RES INST B04 C03 D16 *J5 6099-423
Immunisation of bred fish - 70566D/39
- KOJK 25.06.75 KOHJIN KK D16 (D13) = J8 1037-798
Gel:formable yeast protein prepn. - 13737Y/08
- KOLL/ 28.12.77 KOLLROSS G A32 D12 (A97) #GB 1598-706
Sausage skin gathering machine - 30407A/17
- KOLL/ 29.12.79 KOLLROSS G D12 = FI 8004-024
Sausage skin gathering machine - 30407A/17

- KOLL/ 29.12.79 KOLLROSS G D12 = J5 6101-816
Sausage case corrugating device - 49973D/28
- KONN 30.11.79 GIST-BROCADES NV B04 C03 D16 = DK 8005-052
Infectious bronchitis vaccines for poultry - 44438D/25
- *KREM- 10.03.80 KREMS-CHEMIE GMBH D23 E15 *EP --35-703
Terpineol prodn. by direct hydration of pinene - 70127D/39
- *KRUG/ 12.03.80 KRUGER E D16 *DE 3009-493
Colouring malt extract mfr. - 70045D/39
- *KSAG= 21.02.79 KISH AGRIC INST C03 D13 *SU -793-556
Protein feed supplement for bee propagation - 71217D/39
- KUBI 23.02.77 KUBOTA KK D15 = J5 3115-561
Sludge scraper - 71058D/39
- *KUBI 23.02.77 KUBOTA KK D15 *J8 1037-846
Sludge scraper - 71058D/39
- *KUBI 07.03.80 KUBOTA KK D15 *GB 2071-633
Waste water treatment apparatus - 70386D/39
- KURE 24.08.76 KUREHA KAGAKU KOGYO B04 D16 (B07 D13) = US 4288-555
Culture of basidiomycetes of coriolus species - 15867A/09
- KURE 13.04.77 KUREHA CHEM IND KK B04 D16 = SU -793-408
Increasing antibiotic activity against resistant bacteria - 79384A/44
- KURK 09.10.79 KURITA WATER IND KK D15 = J5 6100-612
Sludge settling tank emptying system - 34504D/20
- KURS 11.09.74 KURARAY KK A96 B04 D16 = J8 1036-979
Reactive carrier for amino acid, enzymes etc - 32862X/18
- *KURS 16.01.80 KURARAY KK D16 F07 J01 (D13) *J5 6100-605
Hollow thread element - 70730D/39
- *KURS 19.02.80 KURARAY KK A96 B04 D16 X16 (A14) *FR 2476-125
Support for immobilising antigens, enzymes etc. - 70287D/39
- *KYOK- 12.05.80 KYOKUTO FATTY-ACID B04 D16 *BE -888-763
Antiallergic compsns. inhibiting immunoglobulin E prodn. - 69863D/39
- *KYOR- 14.01.80 KYORITSU GOKIN KK D15 J02 *J5 6100-663
Spraying nozzle for liq.-gas mixt. - 70758D/39
- *KYOT- 31.03.76 KYOTO-SHI D15 *J8 1037-843
Device for sepg. solids from supernatant - 71056D/39
- KYOW 11.09.75 KYOWA HAKKO KOGYO B04 D16 S03 S05 = J8 1037-793
Creatinine-desimidase prodn. - 18459Y/11
- KYOW 23.08.78 KYOWA HAKKO KOGYO D16 J04 S03 T06 = US 4288-544
Determn. of microorganism activity - 18946C/11
- KYOW 25.12.79 KYOWA HAKKO KOGYO D16 = FI 8004-034
Bubble column with coaxial draft device - 50112D/28
- *LANG/ 17.03.80 LANGFORD G C D14 X27 *GB 2071-480
Domestic coffee roaster - 70349D/39
- LARS/ 22.11.79 LARSSON G D15 = DK 8004-878
Trough for removing water from sand - 61640D/34
- LEGA/ 07.01.80 LEGASTE D23 = DE 3048-723
Steam extn. of essential oil from vegetable matter - 36358D/21
- LEPE 29.06.76 GRUPPO LEPETIT SPA B04 D16 = CH -624-992
Antibiotic L13365 from Actinoplanes sarveparensis CBS 305.76 - 02040A/02
- LICL- 31.03.78 LIC LANDSTINGENS INKOPSC A96 D21 (D22) = CA 1106-762
Disinfecting skin ointment based on alcohol - 14251B/08
- LINM 22.12.75 LINDE AG D22 J07 = CH -624-830
Preserving biological substances, esp. blood, by freezing - 43507Y/25
- LINM 28.10.76 LINDE AG D15 J02 = CH -624-857
Gasification of bulk liquids, esp. oxygenation of waste water - 33624A/19
- LINM 29.02.80 LINDE AG D15 = DE 3007-782
Biological sewage treatment - 68251D/38
- LIOY 03.12.74 LION CORP A17 D21 F06 H07 = DS 2552-337
Low mol poly-alkenes using poly-alcohol ester - 47313X/25
- *LUBB/ 03.07.79 LUBBE W G D13 *ZA 8004-893
Coffee-like beverage - 71766D/39
- *MARZ 11.01.80 MARUKO SEIYAKU KK B04 D16 *J5 6099-798
Reagents for determn. of purine nucleoside phosphorylase activity - 70648D/39
- MASI 11.11.76 MASSACHUSETTS INST TECH A96 B04 D16 = J5 6099-789
Growing anchor dependent cells in a medium contg. a micro-carrier - 21567A/12
- MASI 11.11.76 MASSACHUSETTS INST TECH A96 B04 D16 = J5 6099-790
Growing anchor dependent cells in a medium contg. a micro-carrier - 21567A/12
- MASI 17.09.79 MASSACHUSETTS INST TECH D16 = EP --35-549
Bio-assay for determn. of mutagenic effect - 25382D/14
- *MASZ 20.02.79 MASTER MECHANICS CO D12 *DD -149-154
De-fleshing machine for bones - 69912D/39
- MATS/ 31.05.79 MATSUMOTO T B04 D16 J04 = J8 1036-918
Enzymatic determn. of total poly:amine - 12604D/08
- *MATU 19.01.80 MATSUSHITA ELEC IND KK A96 D22 E34 G04 (E35) *J5 6102-241
Ice-bag for treating sun-stroke, sprains etc. - 70993D/39
- MAZN 09.01.80 MARUZEN KASEI KK B03 D13 E13 = GB 2071-665
18:alpha glycyrrhizinic acid - 62757D/35
- *MAZN 08.03.80 MARUZEN KASEI CO LTD D21 E13 *GB 2071-494
Stable, clear, non-gelling liq. skin cosmetic compsn. - 70354D/39
- *MCME/ 10.05.79 MACMENIGALL W H D15 J01 *ZA 8004-884
Appts. for removing solids e.g. rocks from water - D/39
- MEDI- 17.07.79 MEDIPHARM LTD B04 D16 S03 = ZA 8004-096
Simultaneous determn. of two transaminase enzymes - 82669C/47
- *MEDI= 28.11.79 MED TECH RES INST A96 D22 *DE 2947-985
Matrix material for fixing bone fractures - 69965D/39
- *MEDI= 14.02.80 MED TECH RES INST A96 D22 (A14) *FR 2475-896
Compsn. for rendering wound airtight - 70268D/39
- MEDI= 14.02.80 MED TECH RES INST A96 D22 (A14) = GB 2071-678
Compsn. for rendering wound airtight - 70268D/39
- MEDK 04.03.80 MEDICOR MUVEK A96 D22 F01 (A23 A35) #DE 3008-270
Ligament or tendon prosthesis - 51457C/29
- MEIJ 30.06.77 MEIJI SEIKA KAISHA D13 = CA 1106-304
Starch hydrolysate for use as mild sweetener in foodstuffs - 06466B/04
- MEIT 22.10.75 MEITO SANGYO CO KK B05 D23 E15 (D16) = J8 1037-797
Menthol rich in L:menthol - 39182Y/22
- MERI 20.04.77 MERCK & CO INC A96 B04 D16 J04 (S03 S05) = CA 1106-279
Hepatitis B nucleus antigen prepn. - 76264A/43
- *MERI 09.05.77 MERCK & CO INC B04 D16 S03 *US 4288-539
Bacterial or antibody assay - 71678D/39
- *MERI 20.12.77 MERCK & CO INC B04 D16 *US 4288-557
Prepn. of antigenic complex from neisseria gonorrhoeae - 71685D/39
- MERI 03.12.79 MERCK & CO INC B02 C02 D13 E13 (D22) = J5 6099-485
Substd. penem-3-carboxylic acid derivs. - 32459D/18
- MERI 26.12.79 MERCK & CO INC B05 C03 D22 E16 (E15) = J5 6099-452
2-Methylene-and 2-amino-methyl-3-amino propionitrile derivs. - 51924D/29
- MESP/ 01.02.80 MESPLE JLR D15 = NL 8100-185
Prodn. of drinking water by reverse osmosis desalination - 40238D/23
- *METG 26.11.76 DRAVO CORP D23 *US 4288-297
Rectification of miscella extracted from oleaginous seeds - 71592D/39
- *MEYE/ 13.06.79 MEYER M D13 *US 4288-465
Cheese product with longitudinal fibrous texture - 71657D/39
- MICR- 29.11.79 INST PO MICROBIOLOG D16 (D17) = DK 8005-033
Glucose isomerase prepn. by fermentation - 25455D/15
- MICR- 29.11.79 INST PO MICROBIOLOG D16 (D17) = DK 8005-034
Glucose isomerase prepn. by cobalt-free fermentation - 25454D/15
- *MINA 28.02.80 UK SEC FOR DEFENCE C02 D22 G02 *GB 2071-653
Biocidal hydroxy:alkyl-piperidine(s) and fuses piperidine(s) - 70399D/39
- MINN 22.05.78 MINNESOTA MINING CO A96 D21 G03 (A14) = US 4288-355
Readily mixed surgical cement for dentistry - 86437B/48
- MINN 04.09.79 MINNESOTA MINING CO A96 D22 (A25) = EP --35-517
Water-activated orthopaedic casting material - 25367D/14
- MINN 04.09.79 MINNESOTA MINING CO A96 D22 (A25) = ZA 8005-451
Water-activated orthopaedic casting material - 25367D/14
- *MINN 28.01.80 MINNESOTA MINING CO A96 D21 (A12 A14 A23) *US 4288-221
Polishable one- or two-part dental filling compsn. - 71557D/39
- *MITK 16.01.80 MITSUI TOATSU CHEM INC A35 D17 J01 (A91) *J5 6100-639
Purifying high specific gravity, high viscosity liq. - 70757D/39
- MITO 24.03.78 MITSUBISHI HEAVY IND KK D15 J01 = J5 4125-576
Filter press e.g. for aq. effluent - 71062D/39
- *MITO 24.03.78 MITSUBISHI HEAVY IND KK D15 J01 *J8 1037-850
Filter press e.g. for aq. effluent - 71062D/39
- *MITO 10.01.80 MITSUBISHI HEAVY IND KK D22 E19 J01 *J5 6100-619
Washing gas to remove malodorous sulphur cpds. e.g. mercaptan - 70740D/39
- *MITO 14.01.80 MITSUBISHI HEAVY IND KK D15 J01 *J5 6100-688
Treating aq. effluent, e.g. water from sewage station - 70766D/39
- MITP 13.08.73 MITSUBISHI PETROCH KK A17 D18 (A82) = J8 1037-254
Ethylene-vinyl acetate copolymer leather substitutes - 67961W/41
- *MITP 06.01.80 MITSUBISHI PETROCH KK D16 (D17) *J5 6099-795
Polysaccharide prodn. - 70646D/39
- *MITP 06.01.80 MITSUBISHI YUKA PHA D16 (D17) *J5 6099-795
Polysaccharide prodn. - 70646D/39
- MITR 27.12.79 MITSUBISHI RAYON KK A41 D15 E16 = DE 3047-810
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- MITU 10.04.74 MITSUBISHI CHEM IND KK D15 F06 J01 = J5 0133-163
Waste water contg. organic anions treatment - 71033D/39
- *MITU 10.04.74 MITSUBISHI CHEM IND KK D15 F06 J01 *J8 1036-992
Waste water contg. organic anions treatment - 71033D/39
- MITU 24.08.77 MITSUBISHI CHEM IND KK A91 D15 (A21) = J8 1037-844
Cationic flocculant esp. for treating effluents - 20258B/11
- MOLE- 12.12.78 MOLENG KK D15 = J8 1037-874
electrolytic treatment of waste water - 54100C/31
- MOLM 20.12.79 MOLINS LTD A35 D18 F06 (A88) = DE 3047-857
Prodn. of cigarette filter rods - 52134D/29
- MONT 23.02.77 MONTEDISON SPA D18 E33 = GB 1598-709
Skin tanning prod. contg. acid, aluminium salts and complexing agent - 47772A/27
- *MORE/ 29.02.80 MORETTI R H D16 *BR 8001-192
Alcohol distillation - D/39
- MORG 24.11.78 MORINAGA MILK KK D16 (D13) = J8 1036-888
Lactose decomposition prod. soln. prodn. - 41464C/23

MORI/

- MORI/ 16.03.78 MORIT D15 J01 = J5 4132-871
Filter element for treating waste water etc. - 71064D/39
- *MORI/ 16.03.78 MORIT D15 J01 *J8 1037-853
Filter element for treating waste water etc. - 71064D/39
- *MORI/ 10.01.80 MORI Y D25 E19 (E34) *J5 6099-300
Liq. detergent compsn. - 70544D/39
- MOSK 18.11.76 MOSCOW CHEM EQUIP INST D16 #CH-624-990
Growing microorganisms to mfr. fodder protein from wood etc. - 71209A/40
- *MOSK/ 05.06.78 MOSKOWITZ P M D13 X27 *US 4287-817
Infusing esp. coffee by hot water or steam - 71504D/39
- *MOSU 10.10.78 MOSCOW LOMONOSOV UNIV D16 *SU -791-771
Determining recoverability of adenosine triphosphate from soil - 71163D/39
- *MUSA 21.01.80 MUSASHINO KORYO KAG D23 E14 (D21) *J5 6102-250
Solid perfume mfr. - 70994D/39
- NAAR 08.01.75 NAARDEN INT NV D23 E17 = CH-624-844
Branched opt alpha, beta-unsatd. carboxylic acids with animal note - 56267X/30
- NAAR 03.11.78 NAARDEN INT NV D23 E15 = US 4288-349
3,3-Di:methyl-bi:cyclo(2.2.1)-heptane-2-carboxylic acid - 37603C/21
- *NAHA- 15.09.78 NATIONAL HAM CO D12 *US 4287-820
Appts. for spiral slicing of ham - 71505D/39
- NAMA- 29.08.75 NAT MARINE SERVICE D15 H03 J01 S02 = DK 8100-095
Gravitational separator for immiscible liqs. of different densities - 16779Y/10
- NATR 02.12.77 NATIONAL RES DEV CORP D15 = CA 1106-509
Liquid aerating device esp. for waste water - 44408B/24
- NATR 09.01.79 NATIONAL RES DEV CORP B04 D16 = ZA 7907-020
Rat myeloma cell line with characteristics of C.N.C.M. 1-078 - 59153C/34
- NEAL/ 15.01.79 NEALY R H D15 J09 #CA 1106-129
Sewage treatment by separating into slurry and liquid - 09739B/05
- NEDE 17.01.77 NETHERLAND CENT SCI C01 D22 E12 G02 = GB 1598-451
Organo-tin cpds. with substd. alkyl gp. - 53854A/30
- NEST 28.09.70 SOC PROD NESTLE SA D13 = DS 2147-878
Tea and coffee extracts - 22527T/14
- NEST 09.02.72 SOC PROD NESTLE SA D13 #J8 1036-889
Acid particles - 54470T/34
- NEST 27.04.77 SOC PROD NESTLE SA D13 = CA 1106-221
Milk food used esp. for premature infants - 76250A/43
- NEST 03.08.77 SOC PROD NESTLE SA D13 = CH-624-557
Vegetable protein extracts - 14456B/08
- NEST 04.01.78 SOC PROD NESTLE SA D13 = J8 1036-899
Removing flatulent sugars from soya - 40639B/22
- NEST 01.09.78 SOC PROD NESTLE SA D14 S03 S05 = CH-624-771
Comparing oxidn. susceptibility of samples e.g. of foods - 18942C/11
- NEST 19.12.79 SOC PROD NESTLE SA D13 = FI 8003-864
Water-soluble starch foodstuffs prodn. - 50020D/28
- NEST 19.12.79 SOC PROD NESTLE SA D13 = J5 6099-760
Water-soluble starch foodstuffs prodn. - 50020D/28
- NEVE/ 23.10.79 NEVES A M D16 E17 = NO 8102-106
Delignification of cellulosic materials - 36323D/20
- NIIG 00.00.80 NIIGATA ENG KK D12 = J5 6099-774
Denaturing flesh of aquatic animals esp. fish - 02459B/02
- *NIKA- 16.01.80 NIPPON KANKO SHIKIS A96 D21 E01 *J5 6100-709
Photochromic nail varnish - 70770D/39
- NIOC 29.11.79 NIPPON OIL KK B02 D16 = DE 3044-969
Coproporphyrin III prodn. by cultivation of arthrobacter spp. - 55530D/31
- *NIPQ 16.01.80 DAINIPPON PRINTING KK D21 E24 *J5 6100-384
Teeth brushing time indicating aid - 70712D/39
- NIPS 27.12.76 NIPPON SODA CO B05 C03 D23 E14 = GB 1598-820
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- NIRA 30.01.74 UNITIKA KK D16 = J5 0105-879
Cultivation of yeast of genus Hansenula - 71055D/39
- *NIRA 30.01.74 UNITIKA KK D16 *J8 1037-790
Cultivation of yeast of genus Hansenula - 71055D/39
- NIRA 22.11.79 UNITIKA KK B04 D16 = DK 8004-960
Biologically pure strain of Bacillus stearothermophilus - 44408D/25
- NIRE- 16.04.73 NIPPON REBA IND KK D13 = J4 9129-701
Dispersing capsulated flavour in oil and fat - 71024D/39
- *NIRE- 16.04.73 NIPPON REBA IND KK D13 *J8 1036-891
Dispersing capsulated flavour in oil and fat - 71024D/39
- *NISH- 11.01.80 NISHIKI CO LTD D22 *ZA 8000-172
Air-permeable, waterproof diaper cover - D/39
- NISS 21.07.76 NISSHIN FLOUR MILL KK D23 = J8 1037-280
Extraction of plant components - 20803A/11
- *NISW 10.01.80 NISSHIN OIL MILLS KK D21 *J5 6099-405
Cosmetic contg. tomato oil - 70560D/39
- *NITL 16.01.80 NITTO ELECTRIC IND KK A96 B07 D22 *J5 6100-715
Medicament-contg. plaster prodn. - 70774D/39
- *NITL 16.01.80 NITTO ELECTRIC IND KK B07 D22 *J5 6100-716
- NITT 27.12.79 NITTO CHEM IND KK A41 D15 E16 = DE 3047-810
Unsatd. quat. ammonium salt from aq. amine soln. - 55627D/31
- *NITV 12.01.80 NITTAN KK D15 J01 *J5 6100-684
Treating waste water contg. cyanide(s) - 70765D/39
- *NIVL 10.01.80 JAPAN VILENE CO D22 *J5 6099-410
Medical skin plaster has tacky ointment layer - 70563D/39
- NMHB 30.11.79 NORDISCHER MASCHINE D12 #DK 7905-115
Mechanism for orientating fish - 25657D/15
- NOEL- 06.02.80 NOELL GG GMBH D15 = GB 2071-511
Mechanical water purification rotary disc filter - 60596D/34
- *NOLL- 11.03.80 NOLL MASCH GMBH D22 X25 (D14) *DE 3009-202
Bottle screw cap steriliser - 70027D/39
- *NOSA 10.03.80 NIPPON NOSAN IND KK B04 C03 D13 *EP --35-882
Iodine enriched egg for treating heart disease and cancer - 70207D/39
- NOVO 19.04.78 NOVO TERAPEUT LAB A/S A96 B04 D16 = US 4288-552
Immobilising glutaraldehyde-sensitive enzymes - 77179B/43
- NOVO 06.02.80 NOVO INDUSTRIAS D16 E17 = BR 8100-550
Ethanol prodn. from aq. suspension of granular starch - D/39
- *NOVO 06.02.80 NOVO INDUSTRIAS D16 E17 *SE 8100-713
Ethanol prodn. from aq. suspension of granular starch - D/39
- NURS/ 27.02.80 NURSE W A D17 = BR 8101-173
Three roller extraction mill - 64601D/36
- *OAKT- 12.03.80 OAKTON M A LTD D14 J01 *GB 2071-516
Extractor of dust from dust laden air - 70360D/39
- *OHYA/ 23.09.75 OHYABU Y D13 E19 *J5 2041-271
Maintaining gelling properties of agar during acid addn. - 70469D/39
- OLOF/ 30.11.79 OLOFSSON A D22 = DK 8005-053
Sterilising hollow knife for draining blood from cows etc. - 25432D/15
- OREA 22.02.74 L'OREAL SA A96 D21 E24 = US 4288-622
Dialkyl aminodiphenyl amine dye compsns - 59139W/36
- OREA 16.07.76 L'OREAL SA A25 B04 D21 (A97 B07) = CA 1106-844
Polyether poly:ol surfactants with sequenced structure - 06350A/04
- OREA 17.09.76 L'OREAL SA D21 E14 = CH-624-577
Substd. alkoxy para-phenylene di:amine - 15862A/09
- OREA 20.10.76 L'OREAL SA A96 D22 (A97) = CA 1106-399
Polyamide salt used for deodorant or deodoriser - 30222A/17
- OREA 08.11.76 L'OREAL SA D21 E13 = CH-624-845
Anti:cellulitis cosmetic compsn. - 33462A/19
- OREA 08.11.76 L'OREAL SA D21 E13 = US 4288-433
Anti:cellulitis cosmetic compsn. - 33462A/19
- OREA 28.11.79 L'OREAL SA A96 D21 = DK 8005-075
Hair treatment compsn. - 42102D/24
- OREA 28.11.79 L'OREAL SA A96 D21 = DK 8005-076
Hair treatment compsn. contg. an anionic polymer - 42103D/24
- OREA 21.12.79 L'OREAL SA A26 D21 F06 (A96 A97 D15) = DE 3048-12
Polycationic polymers contg. quat. nitrogen atmos. - 47839D/27
- OREA 28.12.79 L'OREAL SA A96 D21 E19 = DE 3048-878
Hair perming by redn. and oxidn. - 49712D/28
- OREA 28.12.79 L'OREAL SA A96 D21 E19 = J5 6100-710
Hair perming by redn. and oxidn. - 49712D/28
- *OREA 18.03.80 L'OREAL SA A96 D21 *GB 2071-495
Two/phase compsn. for skin or hair - 70355D/39
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 8100-0
Mono:clonal antibody reactive with peripheral T cells and thymocytes - 60747D/34
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 8100-0
Mono:clonal antibody reactive with monocytes and granulocytes - 60748D/34
- *OSAG- 11.01.80 OSAKA GODO KK D21 *J5 6099-406
Hair dressing compsn. - 70561D/39
- OSAY 13.12.79 ENSO GUTZEIT OY D15 = DE 3046-686
Purification of waste water by anaerobic bacterial treatment - 5908
- OSAY 13.12.79 ENSO GUTZEIT OY D15 = FI 7903-914
Purification of waste water by anaerobic bacterial treatment - 5908
- OSAY 13.12.79 ENSO GUTZEIT OY D15 = SE 8008-741
Purification of waste water by anaerobic bacterial treatment - 5908
- OTOB/ 22.03.78 OTOBE I D15 = J5 4125-574
Muffling device for water drain - 71069D/39
- *OTOB/ 22.03.78 OTOBE I D15 *J8 1037-858
Muffling device for water drain - 71069D/39
- *PETE- 05.03.80 PETERSEN H GES VERF D22 J01 *DE 3008-408
Neutralising smelly acidic gaseous and/or smoky material - 700071
- *PETE- 08.03.80 FA PETER E D16 J02 *DE 3008-933
Mixing and stirring device - 70020D/39
- PETE/ 07.02.80 PETERSON G D15 = NO 8100-421
Waste water cleansing process - D/39
- *PETE/ 07.02.80 PETERSON G D15 *SE 8100-371
Waste water cleansing process - D/39
- PETR 31.10.75 VEB PETROCHEM SCHWEDT D16 H06 = SU -791-769

- PEUS/ 29.01.79 PEUSER M F D15 J01 M11 = ZA 8000-402
Effluent treatment of electroplating baths - 43314C/25
- PFIZ 28.01.77 PFIZER INC B04 D16 S03 S05 = US 4288-543
Identification of microorganisms in sub-samples - 57116A/32
- PFIZ 04.02.77 PFIZER INC B03 D22 E13 G02 (D15) = CA 1106-367
Antibacterial 4"-deoxy-4"-amino-erythromycin derivs. - 58751A/33
- PFIZ 29.08.77 PFIZER INC B04 D16 = CA 1106-785
Hypertonic culture medium contg. sorbitol, mannitol or erythritol - 43261C/24
- PFIZ 28.12.79 PFIZER INC A97 D15 (A14) = J5 6099-212
Controlling scale deposition from water using fumaric acid polymer - 53664D/30
- POLA 12.07.75 BEHEER P F W BV D13 E13 = CH -624-834
Cyclic spiro 1,2,4-trithiolan cpds. - 05663Y/04
- POLA 23.12.76 POLAK'S FRUTAL WORKS INC D23 E15 = US 4288-350
Substituted delta:valerolactone(s) - 45829A/26
- *POLL- 18.03.81 POLLOCK & POOL LTD D13 E16 *GB 2071-692
Removal of nitrosamine from beverages - 70420D/39
- *POLY- 10.01.80 POLYPHOS KAGAKU KEN D13 E34 *J5 6099-782
Preventing discoloration of foods - 70643D/39
- POUE 29.12.77 POUDRES & EXPLOSIFS D23 E14 = US 4288-638
Prepn. of 2,4-di:nitro-6-tert. butyl-3-methyl-anisole - 53863B/29
- PRIN 26.01.78 PRINCETON APP RES D15 J04 S03 = CH -624-770
Effluent stream analysis appts. using mercury drop electrode - 21891B/11
- PRIN- 14.09.79 PRINCE CHARLES HOSP B04 D16 = EP --35-521
Determin. of substrate by enzymatic conversion - 25381D/14
- PROC 14.10.75 PROCTER & GAMBLE CO A97 D25 E19 = CH -624-989
Low-foam liq. detergent concentrates - 27144Y/16
- PROC 06.07.77 PROCTER & GAMBLE CO D25 E19 = CA 1106-109
Pourable, water dispersable conc. liq. fabric softener - 08406B/05
- PROC 31.08.77 PROCTER & GAMBLE CO D25 E17 F06 = CA 1106-396
Continuous prodn. of di:peroxy:di:carboxylic acid(s) - 18404B/10
- PROC 21.09.77 PROCTER & GAMBLE CO D13 E19 = CA 1106-680
Meat aroma precursor compsn. - 26453B/14
- PROC 18.04.78 PROCTER & GAMBLE CO D22 = CA 1106-257
Cleaning and disinfecting flushing toilet - 79420B/44
- *PROC 23.05.79 PROCTER & GAMBLE CO D13 *US 4288-378
Stabiliser for peanut butter prepd. from peanut oil - 71626D/39
- PROC 07.03.80 PROCTER & GAMBLE CO D23 (D13) = GB 2071-686
Refining and/or dewaxing edible oils - 53345D/29
- *PROC 10.03.80 PROCTER & GAMBLE CO A96 D21 *EP --35-899
Hair conditioning emulsion contg. soluble, nonionic polymer - 70217D/39
- *PROC 10.03.80 PROCTER & GAMBLE CO A96 D21 *EP --35-901
Hair conditioner contg. volatile hydrocarbon or silicone - 70218D/39
- PROC- 26.09.79 PROCESS ENG CO D16 (D13) = ZA 8005-587
Vinegar prepn. by two-step submerged ethanol fermentation - 27666D/16
- *PROC- 27.08.80 PROCESS ENG CO C03 D16 E17 (D13 E36) *ZA 8005-297
Alcohol prodn. from grain by de:germination - D/39
- PROJ- 29.09.76 PROJEKTIERUNG CHEMI D17 E13 (D16) = CA 1106-306
Xylose prepn. by hydrolysis of xylan with supported enzymes - 25190A/14
- *PROM- 28.09.79 PRO-MARK CO D13 *US 4288-459
Low fat imitation sour cream - 71653D/39
- PURD 06.08.79 PURDUE RESEARCH FOUNDATI D15 E12 (D22) = US 4288-430
Disinfectant for water-conditioning systems - 17403D/10
- RALS 14.04.77 RALSTON PURINA CO D13 = CA 1106-219
Vegetable protein concentrate prodn. - 29419B/15
- *RALS 15.05.80 RALSTON PURINA CO C03 D13 *BE -888-807
Intermediate moisture content pet feed - 69876D/39
- *RAPL 06.03.80 SOC RECH & APPLICATIONS D17 E17 J03 X25 *GB 2071-701
Electrochemical redn. of acid solns. of sugars - 70426D/39
- RAVA/ 28.12.76 RAVAGNAN G D15 H03 J01 = GB 1598-920
Industrial sepn. of oil from waste water with rotary skimmers - 32135A/18
- *REGC 09.04.76 UNIV OF CALIFORNIA B04 D06 *US 4288-546
Selective pituitary gland hormone prodn. - 71681D/39
- *REGC 10.03.80 UNIV OF CALIFORNIA B04 D16 *EP --35-781
Mfg. transfer vector contg. sequence for mammalian peptide - 70169D/39
- *REIC 02.12.77 REICHHOLD CHEMICALS INC C03 D22 E14 F09 *US 4288-249
Wood preserving soln. - 71567D/39
- REIS/ 18.07.79 REIS A K D22 S05 X25 = ZA 8003-492
Sterilisation reactor - 11858D/08
- REIT/ 23.02.80 REITTER F J D17 (D16) = EP --35-679
Continuous acid hydrolysis of cellulosic vegetable material - 69830D/38
- RENN/ 13.09.79 RENNERT FELT L I D15 M14 = EP --35-515
Purificn. of spent acid pickling baths - 25384D/14
- *RESE= 02.02.77 RESERVOIR FISHING C03 D13 *SU -793-528
Prodn. of feed supplement for fish - 71215D/39
- REXO 31.05.78 REXOLIN CHEM AB C03 D15 E19 F09 = GB 1598-610
N-aminoethyl-1,3-propane di:amine penta:acetate acid - 91333B/51
- RGBI- 29.02.80 RGB LABS INC A26 C03 D13 (A96 A97 C04) #BR 8001-201
Mineral contg. polymeric compsns. with dispersibility in water - 46674C/27
- RHON 24.08.76 RHONE-POULENC INDUSTRIES D16 (D18) = US 4288-556
Streptomyces caligosus NRRL 8195 - 19910A/11
- RHON 29.11.79 RHONE-POULENC INDUSTRIES A97 D17 = DK 8005-077
Beet juice purificn. by contact with ion exchangers - 44074D/25
- RIAT- 18.02.80 RIAT D18 = FR 2476-131
Perforated drum contg. skins for soaking in liq. - 64388D/36
- RICA/ 13.09.76 RICARD J C03 D22 G04 (D13 D16) = CA 1106-201
Mycofungicide contg. propagules or spores of immunising commensals - 17674A/10
- RICH 22.06.79 RICHARDSON-MERRELL INC D13 = ZA 8003-066
Herbal sweets mfr. - 02118D/03
- RICH- 01.10.79 RICHARSON-VICKS INC A96 D21 = ZA 8005-274
Non-adhesive gel compsn. for stabilising dentures - 27594D/16
- RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 = GB 2071-651
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 = NL 8100-567
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- *RITP 17.01.79 SYBRON CORP D15 (D16) *US 4288-545
Microbiological removal of fats and greases from waste-waters - 71680D/39
- ROBE- 08.01.80 ROBECO CHEM INC B05 D21 #J5 6100-707
Inhibiting nitrosamine formation in topical formulations - 16436C/09
- *ROGE/ 14.03.79 ROGERS O W D21 M11 S05 X25 *US 4288-298
Dental crowns etc., made by electrodeposition - 71593D/39
- ROHG 01.02.80 ROHM GMBH D13 = NL 8100-280
Protein hydrolysis for neutral-tasting hydrolysate food prodn. - 58931D/33
- ROHM 26.12.79 ROHM & HAAS CO A60 C02 D22 E13 = J5 6099-465
2,5-Di:substn.-4-iso-thiazolin-3-one derivs. - 51976D/29
- *ROME= 11.09.78 ROST MED INST B04 D16 S03 (S05) *SU -793-566
Test for immunological reaction of animal cells - 71219D/39
- ROQF 31.08.78 ROQUETTE FRERES SA A91 B05 D16 E16 (D17) = US 4288-619
Recovery of alpha-hydroxy- and alpha-amino carboxylic acids - 18401C/11
- RUHR 28.08.78 RUHRCHEMIE AG D23 E15 = CA 1106-857
2-Methyl:cyclohexenyl-butylaldehyde prepn. - 16878C/10
- *SAGA 07.03.80 SAGAMI CHEM RES CENTRE B05 D13 E14 *EP --35-743
Prepn. of di:peptide(s) - 70148D/39
- SANC/ 14.11.79 ORDAZ SANCHEZ I A35 D18 = ZA 8004-777
Cut leather and plastic pieces processor - 38388D/22
- SAND/ 28.11.79 SANDERSON C H D15 J01 = DE 3043-746
Device for magnetic treatment of fluids - 44633D/25
- SANK- 27.12.76 SANK CHEMICAL KK B05 C03 D23 E14 = GB 1598-820
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- SANO 04.11.75 SANDOZ LTD B03 D16 = CA 1106-303
(Dihydro)cyclosporin C immunosuppressant and antiarthritic prepn. - 32745Y/19
- SAOC 01.10.73 SANRAKU OCEAN B04 D16 = J8 1036-916
Microbial prodn. of ATP decompsg enzyme - 82180W/50
- SCHE/ 04.12.79 SCHERZ S D13 = FR 2475-859
Low calorie, powdered edible prod. contg. gelatin - 44341D/25
- SCHM/ 18.01.77 SCHMIDT M D11 = CA 1106-223
Waffle filled with honey and corresp. honey depositor - 35000A/20
- *SCHM/ 11.03.80 SCHMID E D22 *EP --35-583
Skin transplant pressure pad - 70080D/39
- *SCHM/ 11.03.80 SCHMID E D22 *EP --35-584
Skin transplant pressure pad - 70081D/39
- SCHN/ 24.11.79 SCHNELL K D12 = DK 8002-321
Meat mincing machine - 40425D/23
- SCHO- 23.03.77 ETAB SCHOLTES E D14 X27 #DS 2712-654
Electric cooking oven incorporating fume destruction - 63028Y/36
- SCMA 28.11.79 SCHMALBACH-LUBECA G D14 = DK 8005-041
Food preserves sterilisation - 55228D/31
- SCMZ 31.05.77 SCM CORP B05 D23 E15 #CH -624-917
Stereoselective hydrogenation of cyclic unsaturated cpds. - 84604Y/47
- SCMZ 03.08.78 SCM CORP D11 E17 = CA 1106-684
Prepn. of stabilised fluid shortenings for yeast raised prods. - 88286C/49
- SCMZ 07.12.78 SCM CORP D13 = CA 1106-682
Edible hard butter compsns. - 49675C/28
- SEAR 01.06.79 SEARLE G D & CO B04 D16 = DK 8002-287
Plasmids useful as vectors for eucaryotic DNA - 88368C/50
- SEAR 30.01.80 SEARLE G D & CO B04 D16 E14 (B05 D13) = NL 8100-437
Synthetic gene contg. repeating codon sequence - 42123D/24
- SEAR 06.02.80 SEARLE G D & CO B04 D16 = NL 8100-558
Gene for expressing protein similar to human interferon - 44110D/25
- SEAR 06.02.80 SEARLE G D & CO B04 D16 = SE 8100-581
Gene for expressing protein similar to human interferon - 44110D/25
- SEK 05.12.75 SEIKAGAKU KOGYO B04 D16 #CH -624-991
Aq. extrn. of kallidinogenase from pancreas - 94063X/50
- *SEVE/ 07.08.80 SEVENSTER F C03 D13 *ZA 8004-816
Cockroach insecticide compsn. - 71765D/39
- *SHAN/ 09.10.79 SHANN T P D15 *US 4288-325
Filter for conventional water tap - 71603D/39

SHEL

- *SHEL 31.03.77 SHELL INT RES MIJ BV D22 E17 *GB 1598-449
Air treatment gels, esp. air fresheners - 70307D/39
- SHEL/ 22.08.78 SHELEG D16 (D15) = US 4288-241
Sludge conversion to compost - 18754C/11
- *SHIB/ 17.01.80 SHIBAOMIT A32 D13 (A11) *J5 6101-814
Heat fusible oblate starch film mfr. - 70928D/39
- SHIN- 08.09.76 SHINOTEST KENKYU-SH B04 D15 E14 J04 (D16 S03 S05)
= J8 1037-800
Phosphatase activity determ. by oxidn. of phenol with iodine - 33956A/19
- *SHIR- 14.01.80 SHIRAIMATSU SHINYAK D22 *J5 6100-060
Deodorant compsn. - 70658D/39
- *SHMC 11.01.80 SHIMIZU CONSTRUCTION D15 *J5 6100-691
Organic waste water treatment - 70767D/39
- *SIDO/ 07.03.80 SIDOTIF D11 *EP --35-978
Gluten free baked goods prodn. - 70255D/39
- SIGE 01.03.80 SIGRI ELEKTROGRAPHI GMBH B06 D22 E36 (B07) = EP --35-593
Carbon as implantable carrier for antibiotics - 68110D/38
- SMHL 10.01.76 SIMON HARTLEY LTD D15 = J5 2085-761
Vertical axis aerating rotor for waste water - 27204Y/16
- SMHL 10.01.76 SIMON HARTLEY LTD D15 = J8 1036-976
Vertical axis aerating rotor for waste water - 27204Y/16
- SMHL 25.05.78 SIMON HARTLEY LTD D15 = CA 1106-510
Thickening activated sludge - 40664B/22
- SMHL 01.02.80 SIMON HARTLEY LTD D15 J01 = NL 8100-357
Sludge dewatering appts. having foraminous belt - 60888D/34
- SMIN 29.08.79 SMITH & NEPHEW LTD D22 = ZA 8005-309
Pad protecting female undergarments against vaginal discharges - 21860D/13
- *SMIT/ 11.05.78 SMITH W J B05 D13 E12 *US 4288-464
Flavour enhancer esp. sweetener for frequent use - 71656D/39
- SNAM 10.07.75 SNAMPROGETTI SPA A96 B04 D16 S03 = CH -624-714
Improving oxidoreductase enzyme activity - 04317Y/03
- SNAM 23.12.76 SNAMPROGETTI SPA C03 D16 H04 (D13) = CA 1106-786
Methanol-utilising Candida strain - 45864A/26
- SNAM 05.07.77 SNAMPROGETTI SPA D17 E13 (D16) = CA 1106-225
Fructose prep. from glucose solns. - 01939B/02
- SNOW 19.11.77 SNOW BRAND MILK PRODUCTS B04 D16 = J8 1037-794
Fixed complex membrane prodn. - 53723B/29
- SNPA 26.11.74 SOC PETROLES AQUITAINE D15 H01 = SU -793-375
Purifying oil drilling effluent - 42019X/23
- *SOFF- 14.02.80 SOFFIN SOC FINANCIE D13 *FR 2475-857
Mfr. of cheese stabilised against butyric swelling - 70265D/39
- SOGO- 30.03.78 SOGO PONPU SEISAKUS D15 = J8 1037-862
Appts. for blowing air or other gas into water and stirring - 11842C/07
- SOIT 08.11.76 SOC ITALO-BRIT MANE D21 E14 = CA 1106-286
Cosmetic compsns. contg. benzyl alcohol absorption activator - 35267A/20
- *SOPH- 29.01.80 SOPHUS FUGLSANG EXP D16 *DE 3003-143
Charging rectangular malting kiln - 69967D/39
- SORI- 05.02.80 SORIGONA AB D16 = SE 8000-923
Microbiological treatment of organic material - 66060D/36
- STAL 05.07.77 STALEY A E MFG CO D13 = CA 1106-677
Aerated confections requiring no crystallisable sugars - 78262A/43
- *STAL 03.03.80 STALEY A E MFG CO D17 E13 *EP --35-589
Aldoside prodn. from starch and alcohol - 70084D/39
- *STAU 18.11.77 STAUFFER CHEMICAL CO D11 *CA 1106-224
Protein fortified doughnut compsn. - 69885D/39
- STAU 19.11.79 STAUFFER CHEMICAL CO D13 = J5 6099-752
Protein prod. with lower gelation temp. - 40600D/23
- STAU 26.12.79 STAUFFER CHEMICAL CO D24 E12 = J5 6099-436
Carboxylate salt prodn. - 51971D/29
- *STAU 31.12.79 STAUFFER CHEMICAL CO D12 *J5 6099-775
Protein rich shell meat - D/39
- STBR 15.11.79 STANDARD BRANDS INC D17 E13 (D16) = US 4288-548
Glucose isomerisation to fructose with immobilised enzyme - 40209D/23
- STDM 31.01.80 STAFFORD MILLER LTD B06 D21 = GB 2071-493
Effervescent stannous fluoride dental tablet - 40039D/22
- STER 13.08.79 STERLING DRUG INC A96 D21 E19 (A25) = ZA 8004-901
High sudsing skin cleansing compsn. - 14157D/09
- STRK 06.02.80 STORK BEPAK BV D17 = NL 8000-736
Shaping cubes from granular material - 62628D/35
- *SUGI- 14.01.80 SUGIYAMAGEN IRIKI K D15 E32 J04 *J5 6100-360
Determining concn. of mercury in aq. soln. - 70711D/39
- SUMH 31.03.76 SUMITOMO HEAVY IND D15 = J5 2118-668
Device for sepg. solids from supernatant - 71056D/39
- *SUMH 31.03.76 SUMITOMO HEAVY IND D15 *J8 1037-843
Device for sepg. solids from supernatant - 71056D/39
- *SUMO 16.01.80 SUMITOMO CHEMICAL KK B07 D14 *J5 6100-625
Appts. for producing granular food or pharmaceutical - 70746D/39
- *SUPR- 18.05.79 SUPRO FOODS PTY LTD A97 D13 *ZA 8002-504
Maize meal food prod. prep. - D/39
- *SUPR- 11.03.80 SUPRATON ZUCKER F J A31 D14 *DE 3009-185
Materials melting device - 70024D/39
- *SWIF 27.12.77 SWIF & CO D13 E17 *CA 1106-681
Materials melting device - 70024D/39
- *SYNT 11.02.80 SYVA CO B04 D16 S03 (S05) *US 4288-553
Disopyramide conjugates with antigen or enzyme - 71683D/39
- *SYNT= 10.07.78 SYNTH NATURAL PERFU D23 E17 (D21) *SU -791-736
Linalyl acetate prep. for perfumery cosmetic applications - 71133D/39
- *SYNT= 01.12.78 SYNTH NATRAL PERFUMERY D23 E15 *SU -791-728
Prod. of iso-eugenol for perfumery use - 71125D/39
- *TABU/ 06.03.78 TABUSHII A97 D15 J01 M25 *J5 6100-804
Macrocylic di:amide tetramine cpds. - 70810D/39
- *TABU/ 06.03.78 TABUSHII A97 D15 J01 M25 *J5 6100-805
Macrocylic hexamine cpds. - 70811D/39
- TAKE 28.03.74 TAKEDA CHEMICAL IND KK B04 C03 D16 = J8 1037-795
Antibiotic B-98891 from Streptomyces culture - 69223W/42
- TANA 27.10.73 TANABE SEIYAKU KK D13 = J5 0070-547
Removing endocarp from oranges - 71027D/39
- *TANA 27.10.73 TANABE SEIYAKU KK D13 *J8 1036-913
Removing endocarp from oranges - 71027D/39
- TANA 17.07.74 TANABE SEIYAKU KK D13 (D16) = J8 1036-910
Seaweed tsukudani prep. - 19977X/11
- TATL 08.01.76 TATE & LYLE LTD B03 D13 E13 = CH -624-835
Sweetening compsns. contg. chlorinated saccharose derivs. - 32845Y/
- TATL 18.12.79 TATE & LYLE LTD B03 D13 E13 = FI 8003-959
Crystalline tri:chloro-tri:deoxy-galacto-sucrose - 48097D/27
- TATL 19.12.79 TATE & LYLE LTD D25 E13 #ZA 8004-792
Prod. of sucrose ester surfactants - 48265D/27
- TATL 20.12.79 TATE & LYLE LTD B03 D13 E13 = FI 8003-982
Tri:chloro-tri:deoxy-galacto:sucrose prodn. - 48270D/27
- TECD 31.01.79 LEE M J B04 D16 S03 (S05) = US 4288-425
Disc electrophoretic method for immunochemical reactions - 57193C/2
- TECN- 19.07.77 TECNICOMPLEX SPA D16 = CH -624-653
Mechanised digester used to produce fertiliser from organic waste - 84173A/47
- TEXC 21.02.73 TEXACO INC D15 H04 #J8 1037-162
Waste water contng sulphide - 22279U/16
- *TIGW/ 15.08.79 TIGWELL D C D15 J04 *US 4288-206
Automatic multiple water sampler - 71553D/39
- *TOGA- 11.01.80 TOHO GAS KK D21 *J5 6099-406
Hair dressing compsn. - 70561D/39
- *TOKA- 14.01.80 TOKAI GOKIN KOGYO K D15 J02 *J5 6100-663
Spraying nozzle for liq.-gas mixt. - 70758D/39
- TOKU/ 17.11.77 TOKUDAT D16 = J8 1037-785
Fermentative prodn. of seasoning - 53270B/29
- TONK- 27.05.74 TON KK D13 = J5 0154-449
Improving taste and flavour of sliced raw peanut - 71026D/39
- *TONK- 27.05.74 TON KK D13 *J8 1036-898
Improving taste and flavour of sliced raw peanut - 71026D/39
- TOXN 21.12.79 TOYO JOZO KK B04 D16 J04 = DE 3048-030
Extn. of ascorbate oxidase from Sechium edule - 50270D/28
- TOXW 23.06.76 TOYO INK MFG KK A97 D23 J01 (A21 A23) = J8 1037-866
Adsorbent material comprising alkyl resin and melamine resin - 11511A/06
- TOYA 24.08.79 TOYAMA CHEM KK A96 B04 D16 #ZA 8005-111
Carcinostatic and immunostimulant cpds. prodn. - 17447D/11
- TOYJ 24.07.78 TOYO SODA MFG KK D17 = FR 2476-130
Beet juice discolouration by adsorption - 13333C/08
- *TRIF/ 05.02.79 TRIFONOV N N D15 *SU -793-947
Water thermal deaerator - 71379D/39
- TRIO- 07.02.80 TRIO ENG LTD D12 = NO 8000-325
Fish forward feed in process unit - D/39
- *TRIO- 07.02.80 TRIO ENG LTD AS D12 *SE 8100-618
Fish forward feed in process unit - D/39
- TSUB 15.02.77 KUMIAI CHEM IND KK B04 D16 = J8 1037-796
Antibiotic Multiomycin prep. - 73643A/41
- *TSUB 25.07.79 KUMIAI CHEM IND KK A60 C02 D15 E12 (E13) *J5 6099-401
Liq. fungicidal and algicidal compsn. - 70556D/39
- TUCH- 25.05.76 TUCHENHAGEN O GMBH D14 = DS 2623-301
Pipeline shut-off stop, esp. for foodstuffs industry - 88401Y/50
- TUOM/ 14.01.80 TUOMIKOSKI V U M C03 D13 (C01) = FI 8000-094
Preservation of moist animal feeds - 58750D/32
- TURC/ 09.05.80 TURCOTTE H A96 B04 D16 S03 (S05) #US 4288-540
Early detection of cancer - 78955C/45
- *ULIC= 13.11.78 ULICH BUTTER CHEESE D13 *SU -793-554
Prod. of fats emulsion for making dairy prods. - 71216D/39
- *ULYA= 05.12.78 ULYAN POLY D15 *SU -793-946
Vacuum deaerator for water - 71378D/39
- *UNBI- 14.02.80 UTD BISCUITS UK LTD D13 *GB 2071-478
Treatment of seeds for foodstuffs - 70347D/39
- UNIC 17.09.76 UNION CARBIDE CORP D12 = CA 1106-685
Stuffing sausage casing with valved movable horn - 64600Y/36
- UNIC 12.10.76 UNION CARBIDE CORP D12 = CA 1106-229
Closing stuffed sausage casing with crimped U-clip - 64607Y/36
- UNIC 28.06.77 UNION CARBIDE CORP A97 D12 = CA 1106-678

UNIC 07.09.79 UNION CARBIDE CORP D15 J01 = J5 6100-606
 Ultrafiltration and reverse osmosis unit with parallel porous tubes - 21876D/13

UNIL 02.07.74 UNILEVER NV D13 E13 = CH -624-833
 Flavouring agent for foodstuffs esp. margarine - 06731X/04

UNIL 07.11.75 UNILEVER NV A97 D25 E17 (A25) = CH -624-710
 Nonstreaking, dish-washing compsns. - 32794Y/19

UNIL 18.12.75 UNILEVER NV D25 E12 = CH -624-709
 Bleaching compsn. contg. persalt and ferric complex catalyst - 43456Y/25

* UNIL 18.04.77 UNILEVER NV A96 D21 E19 (A26) *GB 1598-567
 Hair conditioner contg. volatile silicone - 70314D/39

UNIL 30.08.77 UNILEVER LTD D13 = CA 1106-676
 Iced confectionery esp. ice lollipops - 18000B/10

UNIL 20.03.78 UNILEVER NV D21 E19 = US 4288-341
 Deodorant non-germicidal toilet soap tablet - 69929B/39

UNIL 03.10.78 UNILEVER LTD A97 D25 E34 = DS 2960-405
 Particulate alkaline detergent contg. mixed phosphate builders - 27740C/16

UNIL 12.01.79 UNILEVER NV A97 D25 (A14 A25) = ZA 8000-139
 Dishwashing detergent having low spotting or filming props - 53870C/31

UNIL 07.02.80 UNILEVER NV D25 E16 = NO 8100-411
 Cleaning and depositing perfume on surfaces - 62654D/35

UNIL 28.02.80 UNILEVER LTD D12 = EP --35-847
 Prodn. of water-holding protein material - 69816D/38

* UNIV- 10.03.80 UNIVABLOT B04 D16 *EP --35-937
 Hasenula yeasts esp. H anomala used as medicaments - 70234D/39

UPJO 05.02.80 UPJOHN CO D16 = FR 2476-126
 Expression of gene coding by fusing gene - 60946D/34

* UPJO 12.03.80 UPJOHN CO B04 D16 *EP --35-914
 Co-integrate plasmid(s) from E. coli and streptomyces spinosus DNA - 70226D/39

* URDA/ 31.08.78 URDANOFF H D D15 *US 4288-324
 Skimming appts. with baffles preventing debris entry - 71602D/39

UYMO- 19.11.79 MONTANA STATE UNIV C03 D16 = DE 3043-535
 Cork elm disease treatment - 40217D/23

* UYVO= 25.12.78 VORON UNIV D15 *SU -793-598
 Water demineralisation - 71230D/39

VEHN- 21.07.77 VEHNA OY AB D17 F09 G03 = CA 1106-106
 Unmodified starch adhesives for corrugated cardboard - 11280B/06

VENT- 11.08.80 VENTREX LAB INC B04 D16 J04 S03 (S05) #ZA 8004-870
 Solid phase testing of mobile component in fluid - 15959D/10

* VETE= 26.01.78 VETERINARY RES INST D16 *SU -794-073
 Bacterial aerosol dispersion research assembly - 71406D/39

* VIDE/ 19.02.80 VIDEAU Y D12 *FR 2475-855
 Machine to strip skin etc. from food prods. e.g. meat, fish - 70263D/39

VODO= 12.10.79 VODOKANAL WATER-CAN D15 J01 X25 = FI 8003-213
 Sand separator automatic discharge - 58142D/32

* VOTE= 05.03.79 VORON TECH INST D16 *SU -793-645
 Appts. for washing and disinfecting grain - 71269D/39

WAGR 21.09.79 WEST AGRO CHEMICAL C03 D22 E36 = J5 6099-419
 Stable dilute iodine germicidal compsns. - 23407D/14

WASE- 30.05.77 WASEDA SETTLING KK D15 = J5 3148-150
 Appts. for draining sludge precipitated in sedimentation tank - 71060D/39

* WASE- 30.05.77 WASEDA SETTLING KK D15 *J8 1037-848
 Appts. for draining sludge precipitated in sedimentation tank - 71060D/39

WASE- 14.12.77 WASEDA GIKEN KK D15 = J5 4099-269
 Sedimentation pond suspension separator - 71057D/39

* WASE- 14.12.77 WASEDA GIKEN KK D15 *J8 1037-845
 Sedimentation pond suspension separator - 71057D/39

WATE- 18.03.77 WATER REFINING CO D15 T06 = GB 1598-489
 Control circuit for starting regeneration cycle in water softener - 53514A/30

* WATE- 19.10.78 WATER POLLUTION CON D16 *US 4288-394
 Sewage aeration system - 71633D/39

* WATE- 19.10.78 WATER POLLUTION CON D15 *US 4288-395
 Gas diffuser e.g. for sewage aeration - 71634D/39

WEET- 01.04.77 WEETABIX LTD D14 = CA 1106-812
 Air conditioning installation - 44578D/25

WELA 09.12.77 WELLA AG A96 D21 (A11) = EP G002-506
 Aq. hair conditioner and shampoo compsns. - 45814B/25

WELL 28.11.79 WELLCOME FOUNDATION LTD B04 D16 S03 (S05) = DK 8005-051
 Preservation of fixed monolayers of tissue culture cells - 44420D/25

WENG- 06.11.79 WENGER MFG D17 E13 (D16) = ZA 8004-618
 Prodn. of sugars from starch-bearing materials - 38538D/22

* WERN 29.05.80 WERNER & PFLEIDERER D11 *BE -888-805
 Bakery oven using reversible flow heating air - 69875D/39

* WHIT- 02.05.80 WHITE CONSOLIDATED D14 X27 *US 4287-873
 Domestic oven range door hinge - 71513D/39

* WIDM- 01.03.80 WIDMER & ERNST AG D13 *DE 3007-993
 Nuts esp. cashew nuts prepared for husk removal - 69985D/39

WILL/ 18.03.77 WILLISCH H D16 = GB 1598-488
 Aerating tunnel supports for compost heap of decomposing waste - 67086A/38

WITC 19.02.80 WITCO CHEMICAL CORP D25 E17 = FR 2476-121
 In situ prepn. of alkyl sulpho:succinate detergent compsns. - 27267D/16

* WOLF/ 18.09.78 WOLFF G G D12 *CA 1106-737
 Appts. for treating meat products prior to packaging - 69900D/39

* WOLT/ 18.02.80 WOLTER H D D15 M12 *DD -149-205
 Neutralisation of waste acid pickling water - 69931D/39

YAGI- 22.09.76 YAGISHITA KK D15 = J5 3039-646
 Sedimentation tank for precipitating fine solids in river water - 71059D/39

* YAGI- 22.09.76 YAGISHITA KK D15 *J8 1037-847
 Sedimentation tank for precipitating fine solids in river water - 71059D/39

YAMA/ 13.11.79 YAMAMOTO H B03 D16 = US 4288-547
 Antibacterial amino:glycoside 2-hydroxy gentamycin antibiotic derivs. - 38414D/22

YAWA 13.05.74 NIPPON STEEL CORP D15 J01 = J8 1037-164
 Granular adsorbent for treating waste water and gas - 13064A/07

YEDA 21.11.79 YEDA RES & DEV CO LTD B04 D16 = FR 2475-901
 Highly purified human interferon prepn. - 42601D/24

YISS 03.07.79 YISSUM RES DEV CO C04 D16 H06 (D23) = ZA 8003-997
 Extracting oil from algae - 29482D/17

* YOSH/ 12.01.80 YOSHIDA T D15 *J5 6100-614
 Filter for liq. e.g. dirty water - 70735D/39

* ZAID 09.01.80 ZH BISEIBUTSU KAGAKU KEN B02 D16 *J5 6099-466
 Antibiotic alanyl bactobolin - 70580D/39

* ZAID 14.03.80 ZH BISEIBUTSU KAGAKU KEN B03 C02 D16 *GB 2071-661
 Ebelactone A and B obtd. from Streptomyces species - 70402D/39

T	W	19366-X AD	67300-X ADFJ	US 4061-537 Y50	27144-Y ADE	US 4288-388 D39	FR 2360-580 A1
22527-T D	03814-W DJ	J5 1009-796 X11	DE 2606-244 X36	GB 1556-199 B47	BE -847-265 Y16		DD -130-906 A2
BE -772-978 T14	BE -817-098 W03	J8 1037-789 D39	FR 2300-606 X51	DS 2532-183 C35	DE 2646-057 Y17	39182-Y BDE	US 4179-277 C0
DE 2147-878 T16	NL 7408-790 W03	19977-X D	GB 1506-785 A15	AT 7605-256 D19	NL 7611-338 Y18	J5 2051-095 Y22	GB 1576-064 C4
ZA 7106-459 T29	SE 7408-598 W08	J5 1012-959 X11	US 4234-431 C49	CH -624-579 D39	SE 7611-364 Y21	J8 1037-797 D39	AT 7701-657 C4
FR 2108-588 T33	DK 7403-380 W11	J8 1036-910 D39	DS 2606-244 D39	13737-Y D	FR 2328-041 Y29		CA 1086-749 C4
CH -530-170 U04	DE 2333-068 W13	32862-X ABD	90600-X BD	J5 2003-896 Y08	GB 1554-736 B44	43456-Y DE	IL -51-643 D1
US 3820-250 V28	FR 2235-083 W15	J5 1031-689 X18	BE -842-002 X49	J8 1037-798 D39	AT 7607-658 D32	BE -849-540 Y25	SU -793-356 D3
GB 1367-616 V38	J5 0070-289 W32	J8 1036-979 D39	NL 7605-438 X50	16457-Y D	CH -624-989 D39	DE 2657-043 Y26	
CA -959-330 W01	GB 1476-957 Y24	36019-X DE	DE 2622-062 X50	BE -845-866 Y10	27204-Y D	NL 7614-001 Y27	74402-Y BDE
DS 2147-878 D39	DS 2333-068 Y36	BE -836-597 X20+	DK 7602-239 Y06	NL 7609-825 Y12	BE -849-315 Y16	SE 7614-253 Y30	DE 2714-041 Y4
49201-T ADE	CH -592-578 Y48	DE 2555-454 X26+	J5 2007-479 Y09	DE 2639-594 Y12	DE 2657-683 Y29	J5 2076-281 Y32	J5 2122-376 Y47
DE 2101-939 T31	AT 7405-379 A13	NL 7514-553 X27+	FR 2311-845 Y11	SE 7609-535 Y15	NL 7614-321 Y30	NO 7604-273 Y32	FR 2346-336 A0
NL 7200-355 T32	AT 7707-543 B18	NO 7504-226 X32+	GB 1525-022 A38	J5 2032-882 Y16	DK 7605-718 Y36	FI 7603-578 Y38	US 4080-329 A1
BE -778-022 T33	J8 1037-166 D39	DK 7505-660 X38+	US 4144-126 B12	NO 7602-921 Y17	FR 2335-593 Y42	BR 7608-454 A02	GB 1538-651 B04
FR 2121-774 T50	19560-W DJ	FR 2293-918 X43+	AT 7603-651 B44	DK 7603-818 Y21	BR 7608-454 A02	PT -65-982 A29	CH -624-672 D39
US 3804-794 V17	DE 2439-572 W12+	BR 7508-248 Y30+	HU T017-371 B50	FR 2322-636 Y23	ZA 7607-045 Y46	US 4119-557 A42	79374-Y DE
GB 1366-031 V36	BE -819-552 W12+	ZA 7507-783 Y35	US 4224-413 C41	ZA 7605-105 A20	GB 1502-742 A09	US 4119-557 A42	BE -854-300 Y45
US 3882-080 W20	NL 7410-948 W13+	DK 7704-418 A05+	CH -624-713 D39	GB 1535-336 A50	US 4151-231 B19	GB 1565-807 C17	NL 7704-736 Y47
CA -984-080 X10	SE 7410-437 W19+	GB 1537-252 B01+	94063-X BD	CA 1090-650 D02	CA 1057-431 B28	J8 0020-520 C26	DE 2619-750 Y48
CH -581-674 X52	DK 7404-366 W23+	GB 1544-537 B16	US 3994-782 X50	AT 7606-424 D02	CH -617-103 C24	CA 1079-007 C28	DE 2619-846 Y49
DS 2101-939 B24	FR 2243-154 W24+	GB 1544-536 B16	DE 2555-587 Y26+	CH -624-854 D39	NL -166-448 D15	AT 7609-237 C41	J5 2133-922 Y51
J4 7042-855 D39	J5 0054-599 W28+	GB 1544-538 B16	DK 7505-577 Y34+	16779-Y DHJ	J5 2085-761 D39	CH -624-709 D39	FR 2350-337 A08
J8 1037-209 D39	AT 7308-328 W35	CA 1069-827 C07	FR 2334-689 Y39+	DE 2637-526 Y10	J8 1036-976 D39		GB 1575-923 C40
54470-T D	AT 7307-771 W35	CH -619-139 C43+	DE 2559-588 Y45+	NL 7609-379 Y11	32745-Y BD	43507-Y DJ	SU -793-388 D39
BE -778-316 T34	AT 7310-098 W35	CA 1091-586 D03+	DK 7704-475 A05+	SE 7609-303 Y15	BE -847-941 Y19	BE -849-649 Y25	83067-Y D
NL 7201-553 T36	ZA 7405-643 W51	FR 2460-665 D17+	FR 2350-356 A08+	NO 7602-961 Y16	NL 7612-026 Y20	DE 2557-870 Y26	DS 2622-982 Y47
DE 2203-429 T36	AR -202-039 X01+	CH -624-578 D39+	GB 1522-358 A34+	DK 7603-898 Y20	DE 2648-121 Y20	NL 7614-151 Y27	SE 7705-701 A02
J4 7019-060 T40	GB 1483-610 Y34+	36385-X DE	GB 1522-359 A34+	FI 7602-463 Y21	SE 7611-906 Y24	J5 2090-619 Y36	J5 2143-290 A03
ZA 7200-583 T45	IT 1020-728 A15	DE 2548-502 X20	DS 2555-587 B13+	US 4032-444 Y27	NO 7603-667 Y25	DK 7605-739 Y37	FI 7701-621 A08
CH -527-570 T47	US 4126-574 A48+	BE -834-896 X20	CA 1057-221 B28	PT -65-528 Y29	J5 2059-180 Y26	FR 2338-467 Y44	CA 1077-772 C23
FR 2124-346 U01	GB 1483-610 B12+	NL 7512-624 X21	CA 1061-269 B37	BR 7605-649 Y34	FI 7603-049 Y30	GB 1519-710 A31	J8 1037-799 D39
GB 1330-794 U38	CA 1050-384 B15+	NO 7503-641 X25	DS 2559-588 C32+	FR 2360-330 A18	DK 7604-831 Y31	AT 7601-249 B04	83945-Y D
AT 7201-055 W19	CH -624-914 D39+	SE 7512-121 X25	CH -624-991 D39	FR 2366-045 A26	FR 2338-251 Y44	US 4107-937 B11	J5 2122-663 Y47
CA -991-033 X27	30925-W DE	J5 1068-523 X31	Y	FR 2366-044 A26	PT -65-791 A12	CA 1058-522 B32	DE 2715-071 A09
SU -489-280 Y08	DE 2446-826 W19+	DK 7504-842 X32	03902-Y BCD	GB 1521-630 A33	ZA 7606-340 A29	CH -624-830 D39	US 4194-019 C13
DS 2203-429 C35	NL 7412-440 W19+	FR 2289-493 X36	BE -843-342 Y03+	GB 1521-629 A33	US 4108-985 B11	49073-Y D	J8 1001-891 D07
J8 1036-889 D39+	FR 2248-022 W30+	PT -64-424 X41	NL 7606-789 Y03+	NO 7901-264 B26	IL -50-836 B48	DE 2658-540 Y28	CH -624-556 D39
U	J5 0070-534 W32+	BR 7507-202 X42	DE 2528-078 Y04	NO 7901-265 B26	CH -614-931 C02	SE 7614-443 Y32	84604-Y BDE
22279-U DH	US 3931-306 X03+	ZA 7506-458 X44	J5 2005-789 Y09+	J8 0012-289 C17	AT 7608-122 C19	J5 2082-742 Y34	US 4058-572 Y47-
US 3725-270 U16	GB 1463-567 Y05+	DD -123-318 Y08	DK 7602-812 Y11+	IL -50-281 C19	GB 1567-202 C21	FR 2336-082 Y43	NL 7706-096 A51-
DE 2304-273 V32	CA 1018-540 Y42+	US 4028-395 Y24	SE 7607-218 Y11+	IL -54-512 C19	US 4210-581 C29	US 4093-748 A31	DE 2725-777 A51-
NL 7302-037 V35	CH -613-847 B45+	AT 7508-231 Y27	FI 7601-807 Y12+	J5 2029-670 C29	CA 1087-609 C45	CH -624-832 D39	J5 4003-041 B07-
FR 2218-292 V50	SU -731-951 C51+	HU T013-749 Y37	FR 2316-940 Y16+	J8 0023-645 C29	CH -619-735 C47+	63028-Y D	CA 1059-152 B33
J4 9114-263 W02	IT 1050-254 D21+	GB 1494-940 Y50	DE 2548-663 Y19	CA 1081-133 C30	FI 8002-084 C48	BE -851-953 Y36	CH -624-917 D39+
GB 1399-426 W27	J8 1037-784 D39+	GB 1515-106 A25	DD -126-740 Y45	J5 3104-472 D07	AT 7807-681 D14	FR 2334-059 Y37	88401-Y D
CA -992-317 X30+	59139-W ADE	AT 7700-657 A26	AT 7604-614 A02	J8 1001-921 D07	CA 1106-303 D39	HU H002-266 Y37+	DE 2623-301 Y50-
DS 2304-273 C16+	DE 2507-566 W36	IT 1025-319 A42	GB 1538-284 B03+	CH -622-186 D16	32794-Y ADE	NL 7702-795 A40+	DS 2623-301 D39
J8 1037-162 D39+	BE -825-825 W36	CS 7608-285 B06	IL -49-846 B34+	DK 8100-095 D39	BE -848-065 Y19	DE 2712-654 A40+	88476-Y DM
V	NL 7502-087 W37	CS 7507-302 B06	CA 1072-079 C11+	18459-Y BD	DE 2650-971 Y20	GB 1543-018 B13+	DE 2659-711 Y50
28846-V D	FR 2262-022 W50	SU -644-378 B42	HU T018-085 C20	DE 2637-671 Y11+	NL 7612-335 Y21	DS 2712-654 D39+	J5 2144-162 A03
US 3801-461 V15	US 4008-999 Y09	SE 7907-995 C02	CH -624-958 D39+	NL 7609-184 Y11+	J5 2058-710 Y25	64600-Y D	US 4072-605 A08+
J8 1036-915 D39	GB 1483-862 Y34	CA 1092-146 D05	04317-Y ABD	SE 7609-154 Y15+	FR 2330-763 Y32	US 4044-425 Y36	BE -858-811 A13
53513-V DE	CA 1062-276 B39	NL 8101-011 D29	DE 2631-045 Y03	NO 7602-825 Y16+	BR 7607-416 Y41	BE 7710-207 A14	NL 7710-207 A14
US 3822-291 V29	CH -614-625 C02	CH -624-661 D39	BE -843-990 Y04	J5 2034-976 Y17	US 4079-020 A15	DE 2741-291 A14	GB 1533-477 A47
DE 2407-863 V39+	IT 1036-077 C06	42019-X DH	NL 7607-714 Y05	DK 7603-746 Y21+	AT 7608-269 B18	SE 7710-421 A17	CA 1045-729 B04+
NL 7403-229 V40+	US 4288-622 D39	BE -835-739 X23	NO 7602-323 Y09	FR 2322-200 Y22+	GB 1562-793 C12	NO 7703-196 A18	DS 2659-711 C18
FR 2221-448 W02+	67961-W AD	NL 7513-436 X24	J5 2010-485 Y10	ZA 7604-569 Y35	CA 1076-447 C20	DK 7704-119 A21	J8 1037-877 D39
J4 9125-384 W05+	DE 2507-566 W36	NO 7503-930 X29	DK 7603-088 Y13	US 4087-329 A25+	CH -624-710 D39	BR 7706-192 A21	A
GB 1400-703 W30+	BE -825-825 W36	DE 2553-146 X34	SE 7607-908 Y13	GB 1515-805 A26+	32845-Y BDE	FR 2364-817 A24	02040-A BD
CH -584-215 Y09+	NL 7502-087 W37	FR 2292-677 X41	FR 2317-310 Y16	DE 2660-172 A44+	BE -850-180 Y19	FI 7702-712 A24	BE -856-273 A02
DS 2407-863 Y28+	FR 2274-685 X14+	US 4035-289 Y29	ZA 7603-894 Y26	DS 2637-671 A46+	NL 7700-192 Y30	ZA 7705-557 A34	DE 2724-090 A03
CH -590-058 Y34+	US 4007-267 Y07	AT 7508-881 A06	DS 2631-045 Y48	US 4134-793 B04+	DE 2700-036 Y30	GB 1583-463 D05	NL 7705-490 A04
J7 8024-957 A33+	J5 0126-892 Y44	GB 1513-837 A24	DD -128-949 A10	CA 1066-211 B48+	SE 7700-057 Y33	CA 1106-685 D39	SE 7707-467 A06
J5 3109-980 A44+	GB 1507-193 A15+	CH -609-018 B12	SU -618-048 B23	J8 1037-793 D39	NO 7700-068 Y34	64607-Y D	NO 7702-225 A07
NL -161-151 B36+	CH -617-227 C24+	CA 1054-268 B22	GB 1550-153 B32	20101-Y DH	J5 2087-275 Y35	US 4044-450 Y36	J5 3002-402 A08
J8 1010-885 D14+	IT 1050-542 D25	IT 1049-723 D19	IT 1039-756 C13	DD -123-811 Y12	DK 7700-070 Y39	BE -859-606 A16	DK 7702-785 A12
J5 6099-769 D39	J8 1037-795 D39	SU -793-375 D39	CA 1076-046 C19	DE 2637-579 Y20+	FR 2337-762 Y45	DE 2745-387 A16	FI 7701-721 A12
73309-V BD	82180-W BD	47313-X ADFH	CS 7604-530 D30	J5 2057-210 Y25+	ZA 7607-563 Y50	NL 7711-158 A17	FR 2356-666 A14
DE 2416-842 V42	J5 0058-282 W50	NL 7514-035 X25	CH -624-714 D39	FR 2329-740 Y31+	PT -66-040 A03	DK 7704-507 A25	ZA 7702-862 A20
FR 2224-134 W05	J8 1036-916 D39	DE 2552-337 X26	05663-Y DE	HU T015-881 B02+	GB 1543-167 B13	SE 7711-434 A27	PT -66-730 A29
J5 0012-226 W14	69223-W BCD	J5 1065-701 X30	BE -844-055 Y04	GB 1561-900 C10+	IL -51-227 C06	FR 2367-666 A28	US 4100-273 A37
ZA 7402-091 X03	DE 2513-249 W42+	FR 2293-443 X42	NL 7606-978 Y05	SU -791-769 D39+	DE 2759-739 C07	BR 7706-776 A30	GB 1533-677 A48
US 3964-467 X27+	NL 7503-800 W42+	US 3997-623 X52	DE 2630-327 Y05	26491-Y BD	CA 1076-110 C19	GB 1594-147 D31	AT 7704-583 B09
FR 2309-282 Y09	J5 1009-718 X11	GB 1465-870 Y09	J5 2010-275 Y10	NL 7610-801 Y15+	AT 7700-048 C23	CA 1106-229 D39	DD -133-573 B14
FR 2309-838 Y09	FR 2274-685 X14+	J8 0005-494 C10	FR 2318-163 Y17	DE 2643-829 Y16+	NO 8000-785 C24	65000-Y CDE	HU T016-399 B20
GB 1471-204 Y16	US 4007-267 Y07	DS 2552-337 D39	GB 1492-380 Y46	J5 2057-316 Y25+	J8 0040-019 C45	BE -852-313 Y37+	SU -680-657 C16
US 4064-006 A01+	J5 0126-892 Y44	56267-X DE	US 4073-957 A09	FR 2325-934 Y26+	DS 2700-036 D08	NL 7702-549 Y39+	IL -52-063 C19
CA 1041-445 A46	GB 1507-193 A15+	DE 2558-657 X30	CA 1053-246 B21	SE 7610-683 Y41+	AT 7907-840 D11	DE 2610-527 Y40	CS 7704-233 C32
IT 1030-569 B27	CH -617-227 C24+	NL 7500-220 X30	CH -624-834 D39	US 4157-280 B25	CA 1096-233 D12	SE 7702-724 Y43+	CA 1086-669 C43
US 4189-470 C09+	IT 1036-410 C06	J5 1091-340 X39	05978-Y BD	GB 1571-196 C46+	AT 7907-841 D29	J5 2111-573 Y44	US 4280-001 D32
CH -624-712 D39	J8 0051-538 D04	FR 2297-240 X46	DE 2532-183 Y04	GB 1571-197 C46+	CH -624-835 D39	NO 7700-656 Y44+	CH -624-992 D39
	CH -624-833 D39	GB 1503-241 A10	BE -844-286 Y05	GB 1571-198 C46+	34497 Y DE	FI 7700-775 Y46+	03893-A D
		CH -624-844 D39	NL 7607-737 Y06	CA 1106-281 D39+	BE -848-322 Y20	BR 7701-457 Y47+	US 4065-241 A02
			SE 7608-183 Y09		DE 2652-424 Y22	DK 7701-070 Y48+	DE 2731-728 A04
			DK 7603-236 Y14		J5 2062-235 Y27	DE 2624-759 Y51	NL 7707-528 A05
			J5 2028-485 Y15		FR 2332-268 Y34	DE 2634-053 A09	FR 2358-108 A16
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	29419-B D US 4146-534 B15 SE 7804-216 A47 CA 1106-219 D39	53723-B BD J5 4073-184 B29 J8 1037-794 D39	53863-B DE NL 7812-475 B29 J5 4095-526 B36 FR 2413-356 B41 US 4236-029 C50 US 4288-638 D39			59153-C BD GB 2039-948 C34+ EP -14-519 C35 DK 8000-073 C36 J5 5113-722 C42 ZA 7907-020 D39	61647-C DL NL 8000-796 C35+ GB 2041-759 C38+ FR 2448-342 C48+ DE 2937-842 D14+ US 4287-616 D39+	04092-D DE EP -21-074 D04 DE 2926-562 D05 J5 6010-128 D13 US 4288-636 D39
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25979-D

FR 2460-952 D17+	20386-D BDJ	25458-D ABD	SE 8008-751 D32	40238-D D	44074-D AD	49712-D ADE	53794-D ADE
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	J8 1036-920 D39	DE 3043-914 D26+	GB 2068-727 D34	GB 2068-774 D34	GB 2064-581 D25	GB 2066-310 D28+	J5 6099-274
06878-D DJ		GB 2065-691 D27+	J5 6099-408 D39	BR 8100-420 D36	SE 8008-144 D29	NL 8007-066 D32+	53797-D ADJ
US 5152-502 D05	21419-D ABD	NL 8006-462 D29+		FR 2475-029 D37	NL 8006-498 D29	FR 2472-382 D34	GB 2067-203
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	SE 7907-035 D16	J5 6099-424 D39+	US 4262-010 D18	NL 8100-185 D39	DE 3044-737 D37	DE 3048-878 D39+	
	SE 8102-554 D27+		EP --30-031 D25		DK 8005-077 D39		
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DE 3027-380 D06	NL 8020-306 D29	DE 2939-625 D15		DE 2947-510 D23+		DE 2952-410 D28	BE -887-991
BE -884-385 D06	EP --34-609 D37	GB 2061-854 D21+	32609-D DE	EP --29-477 D24	44110-D BD	EP --31-553 D29	GB 2071-671
NL 8004-151 D07	GB 2071-672 D39	DS 2939-625 D25	BE -886-744 D19+	NO 8000-821 D28	BE -887-397 D25+	J5 6099-791 D39	
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DK 8003-108 D13	21757-D AD	US 4270-650 D25+	FR 2473-544 D35		NL 8100-558 D39+		DE 2947-898
FR 2461-753 D18	DE 3035-118 D13	SE 7908-967 D26+	DE 3046-842 D39	40483-D DEF	SE 8100-581 D39+	DE 2952-715 D28	DK 8005-041
GB 2060-610 D19+	GB 2062-006 D21	NO 7903-867 D29+		DE 3043-570 D23		EP --31-892 D30	
J5 6042-596 D23	FR 2476-124 D39	DK 7905-115 D39+	34178-D CDE	GB 2064-530 D25	44341-D D	NO 8003-815 D34	55254-D CDE
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	21810-D BD	25901-D D	EP --28-317 D21	FR 2470-118 D30	GB 2066-042 D28	FI 8004-024 D39	NO 8000-218
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US 4263-118 D19	DE 2936-543 D16	PT --71-816 D13					
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	DK 8003-828 D30	NO 8002-812 D20	DE 2940-926 D20	DE 3043-618 D23	EP --29-964 D25	EP --31-050 D28	EP --32-263
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ZA 8004-547 D39	21860-D D	ZA 8005-495 D39	36323-D DE	US 4283-192 D35	FI 8003-435 D34	PT --72-224 D32	J5 6097-540
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J8 1036-918 D39	21876-D DJ	NO 8002-621 D18		EP --29-370 D23+	44408-D BD	EP --31-258 D28	EP --32-270
	EP --25-349 D13	BR 8005-567 D19	36358-D D	NO 8003-466 D28+	EP --29-976 D25+	GB 2066-694 D29	NL 8000-173
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PT --71-693 D10+	DK 8003-803 D30	ZA 8004-992 D39	BR 8100-047 D33	42102-D AD			
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J5 6032-598 D20+	NL 8005-251 D15	FR 2476-121 D39		NL 8006-459 D29	DK 8005-051 D39	DE 3048-030 D39	
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	EP --35-517 D39	EP --26-527 D16	FI 8003-411 D30	BE -887-290 D24	NL 8006-419 D29+	J5 6099-436 D39	SE 8007-081
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WP 8100-340 D10	WP 8100-725 D14	27684-D AD	ZA 8004-777 D39	SE 8100-238 D38	J5 6095-332 D37+	51976-D ACDE	FI 8003-211
EP --32-944 D33	EP --35-521 D39	EP --26-572 D16+	38414-D BD	NL 8100-437 D39	DE 3043-746 D39+	EP --31-705 D29	
US 4288-430 D39		NO 8002-603 D17+	DE 3042-075 D22	42127-D ABD		J5 6099-465 D39	58750-D C
17447-D ABD	25382-D D	GB 2061-732 D21+	GB 2064-519 D25	BE -887-315 D24	47839-D ADF		WP 8101-940
BE -884-864 D11+	WP 8100-726 D14	J5 6045-667 D24+	FR 2469-417 D29	US 4272-513 D26	BE -886-782 D27	52016-D ACDE	FI 8000-041
PT --71-730 D10+	EP --35-549 D39	DK 8003-797 D30+	J5 6081-598 D34	GB 2068-229 D33	GB 2066-276 D28	EP --31-795 D29	
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DE 3031-152 D13+	25384-D DM	27994-D CDFG		FR 2474-862 D37	NL 8006-919 D32		BE -887-211
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SE 8005-921 D16+	FI 8002-821 D22		NO 8003-405 D27+	SE 8100-174 D38	DE 3048-122 D39	J5 6099-407 D39	NL 8100-411
GB 2059-969 D18+	NO 8101-606 D35	28954-D ADJL	J5 6100-607 D39+	NL 8100-473 D39			58931-D
FR 2463-619 D21+	EP --35-515 D39	US 4259-417 D16		42128-D BD	47846-D AD	52130-D DJ	DE 3003-411
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J5 6030-995 D25+	25432-D D	BE -887-841 D39	EP --28-872 D22	GB 2068-230 D33	FR 2475-858 D39+	NO 8003-956 D34+	59087-D
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EP --24-340 D11	DK 8005-053 D39	WP 8100-845 D16	US 4267-164 D22	NL 8100-470 D39	PT --72-207 D32+	52134-D ADF	SE 8008
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J5 6099-799 D39	FR 2473-549 D35	30629-D DE	NL 8006-221 D27	42601-D BD	J5 6093-800 D37+	GB 2071-686 D39	HU 1020
	DK 8005-034 D39	US 4260-497 D17	FR 2470-798 D31	GB 2063-882 D24	ZA 8004-792 D39+		NL 8100
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19695-D ADE	FR 2473-550 D35	30832-D BDE	GB 2065-128 D26+	44050-D DH	J5 6092-898 D37	53595-D DEJ	GB 2061
EP --24-711 D12+	DE 3044-356 D37	BE -886-710 D18	NL 8006-286 D27+	WP 8101-413 D24	FI 8003-982 D39	DE 3037-342 D30+	FR 247
BR 8005-496 D14	DK 8005-033 D39	DE 3044-448 D28	US 4277-462 D30	EP --29-472 D24+		J5 6099-454 D39	NL 8100
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ABSTRACTS

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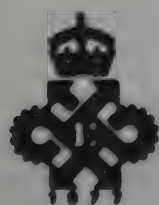
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AUSTRIA	15 SEP 81	7,302,754 - 8,102,332
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Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	Patent No	IPC
MEDA-	Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids			A89		(SE28.7.75)	69369W/42	=US 3964-992		
	MEDAC GES KLINISCHE		11.10.74	DE	448552	(31.12.73-DE-365284)				
	B04 J03 R16		(22.06.76)	*FR2256-410	G01n-27/26					

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

DEBA- ★ D11 71940 D/40 ★DE 3009-890
Baking oven - with convergent-divergent slots in top of centre partition in each deck

DEBAG DEUTSCHE BACK 14.03.80-DE-009890
(24.09.81) A21b-01/24 A21b-03
14.03.80 as 009890 (39BZ)

A baking oven has several decks of baking chambers. The baking chambers are subdivided by vertical partitions, parallel to the side walls with the alternate hot air supply and discharge ducts. A horizontal slot is left between the top of each partition and the ceiling for next higher deck. Guide plates on both sides of each slot are inclined downward and define a convergent-divergent cross-section for each slot.

This makes it possible to increase production by wider decks, yet it prevents direct contact of the dough by the main hot air stream. The result is a uniform browning of the bread crust without excessive burn marks. (19pp)

FATT- ★ D11 72024 D/40 ★DE 3030-757
Automatic dough ring laying machine - with gyrating nozzle tubes and cut/off press-down blade

SOC FATTO FOLLI GIU 14.03.80-IT-003353
(24.09.81) A21c-03/10
14.08.80 as 030757 (39RP)

A machine to produce rings of dough for pastry has several (four) tubes which are directed downward on a moving belt conveyor. The tubes are hinged at the bottom and are driven so that their nozzle ends describe circles. A blade on a parallelogram linkage cuts off the strands and is moved down to compress the overlapping ends.

This is a simple design which is easy to maintain. It combines a high productivity with good functional reliability. (30pp)

FIND- ★ D11 72061 D/40 ★EP --36-088
Machine to roll up pancakes, croissants, meat rolls etc. - uses horizontal spaced conveyor cables intersected obliquely by second set of cables

PRODUITS FINDUS SA 06.03.80-SE-001770
(23.09.81) A21c-03/06 A21c-09/06

18.02.81 as 101139 (448DH) (F) No-Citns. E(AT BE CH DE FR GB LI)

The machine comprises a horizontal conveyor band made up of a number of parallel, spaced, individual belts, cables or ropes. A second conveyor band, similarly constructed of individual belts, intersects the first band, the belts of the second band passing through gaps between belts of the first band, and vice versa.

In plan view, the line of intersection extends obliquely, but only partly, across the horizontal band. For thicker prods. such as meat roll and croissants, a third band can be disposed to intersect the first two so that rolling is accomplished in two stages. The belts are pref. cables or wire ropes each with a dia. of about 5mm and spaced from each other by about 15mm.

High productivity from a simple, inexpensive, compact machine which is readily adjustable and easy to maintain. (16pp)

LENC/ ★ D11 72210 D/40 ★FR 2476-443
Tool for cutting paste blanks for pizzas art bases etc. - uses air pump to suck blank into tool and then de mould by blowing

LENCOT G 22.02.80-FR-004136
(28.08.81) A21c-11 A21d-08

22.02.80 as 004136 (448PW)

The tool is in the form of an inverted basin of which the profiled edge cuts through the sheet. The tool is placed, edge downwards upon the sheet of pastry. The chamber now enclosed between tool and pastry is connected temporarily to a vacuum pressure. This pulls the pastry sheet sharply against the cutting edge of the tool, a cutout blank being drawn upwards into the tool chamber. The chamber is then connected to a source of compressed air which cleanly demoulds the blank. Cutting and demoulding pressures in the tool chamber are pref. obtained by connecting the chamber first to the suction side and then the delivery side of an air pump. The top of the tool is pref. fitted with lifting handles. Electrical push-buttons adjacent to the handles pref. operate solenoid valves to connect the tool chamber to suction or delivery side of the air pump.

Used in mfg. pastry tart bases, pizzas etc. cutting tool does not have to be pressed into the paste, so operator fatigue is reduced

and high output achievable, e.g. 15 blanks per minute per operator. The tool is simple, light wt. and inexpensive. (7pp)

SAKU/ ★ D11 72971 D/40 ★J8 1038-101
Porous noodle prepn. - by high frequency irradiation at 300-4000 MHZ

SAKURAZAWA H 09.03.78-JP-026870
(04.09.81) A231-01/16

09.03.78 as 026870 (22AT)

Noodles are subjected to irradiation with high frequency radiation of 300-4000 MHZ for 10-180 secs. to form porous structure by evapn. of the water. The resultant noodle is heated at 30-160 deg.C for 10-90 mins. (J54119047) (6pp)

FATE- D11 41693 B/22 = J8 1038-166
Single pack dried baking mixt. - contg. yeast and opt. chemical rising agents, e.g. for domestic prodn. of bread, rolls, etc.

PATENT TECHNOLOGY 11.11.77-US-850475
(04.09.81) *NL7811-185 A21d-10

10.11.78 as 138745 (513WB)

Packaged baking mixt. for domestic use comprises a dry mixt. of (i) 75-85% flour with a moisture content of less than 8%, (ii) 1.75-3.25% special dried active yeast with a moisture content of less than 5 wt.%, (iii) 4.5-7.5% of a dry filler material with a moisture content of less than 2 wt.%, (iv) ca.5% dry flavouring ingredients, and (v) 0.5-5% dry dough conditioner and/or improving agents. The mixt. is packaged and sealed in oxidn. - and moisture protective packaging.

The prod. is supplied in a single package in dry form, which is stable for long periods on storage. The prods. can be used to make a wide range of yeast-risen prods. on a domestic scale, such as bread, rolls, pancakes, biscuits, waffles, pizza bases, etc. (J54089055) (13pp)

GENM ★ D11 73468 D/40 ★US 4289-470
Dough ribbons shaped as lasagna strands - by pair of rollers with crimping edges

GENERAL MILLS INC 30.04.80-US-145275
(15.09.81) A21c-11/24

30.04.80 as 145275 (295AT)

A dough ribbon is passed between a pair of vertically aligned rollers which are rotated about parallel horizontal axes. Each roller has a toothed portion at each of its longitudinal ends and these toothed sections mesh to crimp the dough ribbon along its edges. The upper and lower roller are contrarotated by gears connected to a common motor.

Pref. the appts. includes at least two pairs of rollers each of which has crimping teeth. Pref. some of the rollers can be adjusted on their shafts to ensure the correct meshing with the mating rollers. The roller can then be locked to the shafts to preserve the mesh.

The appts. forms lasagna strands. (9pp)

BONG/ D11 51688 D/20 = WP 8102-506
Truck for bakery oven with air-recycling - with elements guiding air holding supports for loaves which facilitate and penetration between loaves and minimise energy consumption

BONGARD P 04.03.80-FR-005108
(17.09.81) *BE-887-758 + A21b-01/26

03.03.81 as F00027 (1192RH) (F) DE2422186 FR2265280 DE2628430 N(DE JP US) E(DE GB NL)

A truck for a bakery or similar oven with air recycling, constituted by four uprights fixed on a rolling carriage and connected together, incorporates elements for guiding and holding supports for loaves which present, on their side turned towards the collectors for blowing air, a form favouring an aerodynamic flow of the air with channeling of the air between the supports. They have a V profile, the bisector of the angle of the V extending parallel to the flow of air.

The penetration of hot air between the supports for loaves is better than in existing ovens. The consumption of energy is less because of the elimination of turbulences. Perfect regularity of baking is ensured with good protection of the outer loaves. (10pp)

D12: MEAT; FISH PROCESSING

UNIC ★ D12 71769 D/40 ★ BE -887-928
 Large dia. tubular cellulosic food casing - contg. specified chloride(s) to inhibit propagation of moulds etc.
UNION CARBIDE CORP 13.03.80-US-130190
 + P43 (14.09.81) A22c-13 A231-03/34 B08b-13
 12.03.81 as 887928 (597RH)
 The casing, previously moistened to a degree such that it does not require further moistening before being filled, contains NaCl, KCl, CaCl₂, NH₄ Cl or MgCl₂ in a consn. such that the water activity of the casing is maintained at a value not above 0.81. Mfr. of the casing comprises adding water to establish a 20-40% moisture content and 2-22.6% NaCl, 2.6-68.7% KCl, 4.1-35.9 CaCl₂, 3.1-33.2 NH₄Cl and 2.9-22% MgCl₂, based on the cellulose.
 Used for salamis, Bologne sausages etc. the use of the salts both avoids the need for further moistening and also inhibits the propagation of moulds, yeasts and bacteria. (35pp)

MAJA- ★ D12 71788 D/40 ★ BE -888-858
 Machine for stripping skin from meat, bacon, fish etc. - has resiliently displaceable pressing roll to accommodate wide range of prod. sizes

MAJA-MASCH SCHILL H 29.05.80-DE-020351
 (16.09.81) A22c
 19.05.81 as 888858 (448AT)
 Machine for stripping skin from meat, fish etc., esp. rind from bacon and ham has a feed roll to carry the prod. against an adjustable stripping blade while a pressing roll pushes the advancing prod. towards the cutting edge of the blade.

The machine is equipped with a feed unit via which the prod. is advanced towards the feed roll. The feed unit prevents an operator's hand loading in the prod. having access to the danger zone of the stripping blade. The pressing roll bearings are now mounted on a linkage which allows the pressing roll axis to be displaced along two coordinates w.r.t. the feed roll and the stripping blade. The pressing roll is spring-loaded towards its nearest posn. to the blade cutting edge. The linkage pref. comprises two opposed, support arms of which one is pivotally linked to the machine frame and the other resiliently mounted on the frame.

The mounting of the pressing roll makes the machine self-adjusting to accept a wide range of prod. sizes. (24pp)

MOHN/ ★ D12 71817 D/40 ★ DD -149-306
 Fish processing transport system - using one belt conveyor with side plates and movable stop plates for storage
MOHNKE H 03.03.80-DD-219386
 (08.07.81) A22c-25/08
 03.03.80 as 219386 (39DH)

Transport system between consecutive fish processing machines, e.g. between scaling and heading machines of mackerels of the species *trachurus trachurus*, consists of a single endless conveyor. It runs between pairs of side plates which can be turned by a stop plate across the belt into an accumulator space. The fish can be removed mechanically or manually to a process machine and then returned to the belt.

This results in an optimum arrangement of the various machines and in combining the functions of conveying, accumulating and distributing. (7pp)

FARH ★ D12 71884 D/40 ★ DE 3008-920
 Tubular cellulose hydrate sausage skin - externally coated with copolymer contg. vinylidene chloride, methyl methacrylate, methacrylonitrile and itaconic acid
HOECHST AG 08.03.80-DE-008920
 A97 P42 P73 (A14) (24.09.81) A22c-13 B05d-07/04 B29d-09 B32b-07/02
 08.03.80 as 008920 (200RH)

Tubular, esp. fibre-reinforced cellulose hydrate sausage skin is externally coated with a vinylidene chloride copolymer film. The copolymer consists, by wt. w.r.t. total copolymer wt., of 86-89 (87.3) % vinylidene chloride, 5-7 (5.9) % Me methacrylate, 5-8 (5.8) % methacrylonitrile and 0.5-1.5 (1) % itaconic acid. A 0.1 wt. % copolymer soln. has relative viscosity 1.09 and its 3 wt. % soln. has relative viscosity 2.85, measured in a tetrahydrofuran and toluene mixt. in vol. ratio 70:30 at 23 deg.C. Copolymer film thickness corresponds to wt./area 3-12 g/sq.m.

The sausage skins with film coating wt./area 8-10 g/sq.m. are partic. suitable for liver sausage. The coating has a low residual solvent content, e.g. less than 10 (1.9) mg/sq.m. for wt./area 5-10 g/sq.m. The E-modulus of the aged sausage skin

water-vapour and O₂. (27pp)

AUTH= ★ D12 71895 D/40 ★ DE 3009-11
 Sausage drying system - in drying chamber with air circulation and periodical intensive internal circulation
AS UKR THERMO PHYS 10.03.80-DE-009119
 (24.09.81) A22c-11 A23b-04/04
 10.03.80 as 009119 (39AT)

Freshly made sausages are dried by air circulation in a drying chamber in which air with a temp. of 10-24 deg.C and at a relative humidity of 70-90% is circulated. At intervals of not over 30 min the small ventilator for the external circulation is boosted by an internal axial fan of 10 to 20-times greater capacity for an intensified internal circulation.

The drying chamber in which the sausages are suspended receives air circulation from the circuit which extends from the outlet through an air cooler, a heating element and a small fan to the inlet. An axial fan is switched on and off by a time relay, e.g. ON for 10 min. and OFF for 20-30 min. An initial temp. of 10-15 deg.C and a relative humidity of 80-90% are held until the sausages have reached a moisture content of 32-38%. The a temp. is then raised to 20-24 deg.C and the relative humidity reduced to 70-75%.

This results in an accelerated moisture extraction from the sausages, a better quality, and saving of power and time. (24pp)

FISC- ★ D12 71990 D/40 ★ DE 3010-4
 Mackerel treatment to achieve smoked salmon taste - sprinkling with condiment-contg. salt and sugar mixt., ripening and opt. smoking
FA FISCHHAUS HOLST 19.03.80-DE-010473
 (24.09.81) A23b-04/04
 19.03.80 as 010473 (200DH)

Mackerel is up-graded by sprinkling 100-150 kg freshly fillet fat-contg. fish with a powder contg. 3 kg salts, 2 kg sugar, sm quantities of acid condiment, flavouring additives and dyestuffs. The treated fish are ripened 48 hrs. in container under pressure, a little above freezing-point temp. and then cold-smoked, pref. at no higher than 20-22 deg.C.

The treated mackerel acquires a salmon taste and texture. The fish is ready for use and can be cold-stored without preservatives and without vacuum packing, for at least 3 weeks. (6pp)

NAGA ★ D12 72029 D/40 ★ DE 3045-5
 Frozen meat slicing guillotine - with automatic return on end stroke or excessive cutting resistance
VEB KOMBINAT NAGEMA 07.03.80-DD-219518
 P62 (24.09.81) B26d-05/02
 29.11.80 as 045065 (39KB)

A guillotine-type of cutting mechanism for frozen food, e.g. frozen meat blocks in meat processing establishments, has a counter blade on which the meat block rests at a distance from a stop which governs the thickness of the slice to be cut. A hydraulic power cylinder pulls the guillotine blade down to perform the cut.

On reaching the end of the stroke, the hydraulic pressure builds up and actuates a pressure sensitive switch which reverses the control valve and returns the blade to the initial position. If the block is frozen too hard, the same action causes an automatic repetition of the impacts until the block is cut through.

This guillotine operates fully automatic and is not overloaded. (9pp)

MOBA- D12 48335 B/26 = EP G005
 Device for enclosing and modelling a fowl - has hinged, closed sides and hinged guide plates to reliably enclose wings
MOBA HOLDING BARNEV 09.12.77-NL-013638
 Q31 (23.09.81) *NL7713-638 B65b-25/06
 04.12.78 as 200343 (1358AT) (E) NL7603625 E(BE CH DE F G H I J K L M N O P Q R S T U V W X Y Z)

Poultry carcass modelling appts. comprises a tube with lower segments connected to the lower edges of an upper pivot outwardly and upwardly or to close with tube, and two pivotable about shafts located adjacent to the segment free in the open position to move between a spread-apart position and a position with their free ends close to each other under the

Each flap is pref. shaped as the arc of a circle with radius to the distance between segment free edges and the axis of pivots so that the segments can move along the flaps and the flaps have moved into their closed position.

ALL/ ★ D12 72211 D/40 ★ FR 2476-445
 brining pieces of meat etc. - each in a sealed container with the
 amt. of salt which it will absorb
PALLUREE 22.02.80-FR-003923
 (28.08.81) A23b-04/02
 2.02.80 as 003923 (597PW)
 The process comprises placing each piece to be treated in a
 sealed container together with an amt. of salt which is barely
 above that to be absorbed by the piece.
 Pref. flavouring, spices and brining ingredients are also
 introduced with the salt; also pref. a food liquid as a vehicle in
 amt. about 2% of the piece to be treated. As containers, plastic
 bags are pref. The amt. of salt is 25-40 gm/kg according to the
 nature and use of the meat.
 It enables a controlled brining, also the possibility of
 contamination between the pieces is avoided as is the need for
 any operation to remove excess salt. (4pp)

FARH D12 38502 A/22 = GB 1599-060
 shaped objects, esp. packaging materials, such as sausage skins
 prepd. from plasticised cellulose hydrate
HOECHST AG 01.12.76-DE-654417
A11 + Q34 (A25 A97) (30.09.81) *BE-861-280 A22c-13
 9.11.77 as 049634 (965PW)
 shaped article comprises prod. obtd. by treating cellulose
 hydrate (I) with an alkylene oxide based polymer (II), a
 permanent plasticiser (III) and water. (II) has at least 1 N-
 methylol carbamate gp. of formula -CH₂-O-CO-NH-CH₂-OH (III)
 contain 9-24C aliphatic gp. Pref. amt. of (III) is 0.5-40 wt.% xxxx.
 (III) + (I). Pref. (III) is a water insoluble ester of a cpd. having at
 least 2 OH gps., at least 1 of which is esterified by a 9-24C
 monocarboxylic acid; pref. the ester has a further OH gp.
 esterified by a 2-8C aliphatic carboxylic acid.
 The prod. is esp. packaging material, e.g. artificial sausage
 skins not for human consumption. Sausage skins made with the
 compsn. can be cut without tearing, even after treatment with hot
 water or superheated steam. (15pp)

ROC D12 86090 A/48 = GB 1599-195
 rapidly rehydratable simulated meat prod. - prepd. using excess
 water before dehydration to make it more porous
PROCTER & GAMBLE CO 23.05.77-US-799896
C03 (D13) (30.09.81) *BE-867-322 A23j-03
 3.05.78 as 021363 (937PW)
 rapidly rehydratable meat analog is prepared by (1) heat setting
 texturised protein material/binder/water mixt. having 1.2-4
 ref. 1.3-2 grains of water of texturised protein material pref.
 vegetable esp. of soybean, cottonseed or peanut protein or animal
 sp. egg albumin or their mixt. then (2) dehydrating heat set
 mixt.
 Pref. the binder is chosen from soy protein isolate, 7S soy
 protein or cottonseed protein binder. Also the mixt. has added
 flavouring and lipid esp. immobilising lipid when the
 immobilising agent is chosen from ethyl cellulose, thermally set
 protein emulsion or propylene glycol mono fatty acid esters. (6pp)

A MHB D12 59939 B/33 #GB 1599-268
 fish processing machine conveyor - with claw pairs self-
 adjusting for fish size against jockey pulleys
NORDISCHER MASCHINE 18.04.78-DD-204862 (13.04.78-GB-
014523)
+ Q35 (30.09.81) *DD-135-993 + A23l-01/32 B65g-15/20
 18.04.78 as 014523 (1358TM)
 fish processing machine has two endless V-belts running
 alongside each other in the same direction and with spaced fish

FAA- ★ D13 71792 D/40 ★ BE -888-877
 volumetric dispenser to deliver successive doses of coffee
 powder - has rotary valve turning on vertical axis in base of
 powder storage bin
STAAR SA 20.05.81-BE-888877
Q32 (16.09.81) A23f B65d
 20.05.81 as 888877 (448AT)
 volumetric dispenser for delivering successive equal vols. of
 coffee powder from a storage bin.
 The base of the bin is fitted with a rotor similar to a horizontal
 wheel, i.e. having a series of symmetrical compartments, open
 at top and bottom, which rotate about a central, vertical axis. A
 shield inside the bin covers the open top of one only of the
 compartments which in that position is aligned directly over a
 discharge orifice in a fixed plate which obscures the open
 bottoms of all other compartments.
 The plate is pref. spring-loaded against the underside of the
 rotor. The rotor pref. has an upwardly extended spindle fitted

entrainers each consisting of two adjacent grippers forming a V-
 shaped recess with one gripper of each pair on each belt. Two
 guide rails laterally support the grippers along at least part of the
 processing path, and a third guide rail is located between
 grippers.

The belts are pref. carried by double-groove pulleys, one of
 which is driven. Each gripper pref. has a shoulder facing away
 from the other gripper of the pair for support by the rail upper
 surface. The third rail pref. has at least one passage to receive a
 processing tool and/or guide. (4pp)

STAU ★ D12 D/40 ★ J5 6102-770
 Protein enriched fish meat
STAUFFER CHEMICAL CO 31.12.79-US-108432
 (17.08.81)

HERO/ ★ D12 73403 D/40 ★ US 4288-888
 De:feathering game fowl by rotating picking head - with
 associated feather catching bag
HEROLZER RH 11.12.79-US-102344
(15.09.81) A22c-21/02
 11.12.79 as 102344 (295AT)
 An appts. for removing the feathers from a game bird includes a
 horizontal, rotating shaft which carries a rotating picking head.
 Resilient fingers project from the head and contact the bird to
 pluck its feathers. A housing surrounds most of the rotating head
 but includes a vertical slot through which the fingers can project.
 Rotation of the head produces an air flow into the housing
 which includes meshed panels which vent the air. Feathers are
 carried into the housing by the air flow but do not pass through
 the mesh. Instead, the feathers fall into a bag at the base of the
 housing. The appts. removes feathers from a game bird and
 delivers them to a collection bag. (7pp)

FARH D12 87852 B/49 = US 4289-171
 Tubular packing film, esp. sausage skins - of cellulose hydrate
 reinforced with fibres coated with a binder and an optically
 active substance
HOECHST AG 26.05.78-DE-822886
A97 Q34 + P73 Q67 (A11 A21 A92) (15.09.81) *DE2822-886
+ B32b-01/08 F16l-11/02
 29.05.79 as 043103 (965TM)

A new packaging material (iii) is described comprising a fibrous
 web (I). At least part of the fibres forming (I) include at least a
 partial coating of a mixt. of chemical substances (II) which
 comprise a major portion by wt. of a chemical binder based on a
 synthetic water soluble heat-curable cationic resin
 precondensate and a minor proportion by wt. of at least 1
 chemical colouring substance.

A layer of regenerated cellulose impregnates and coats (I). (iii)
 is obtd. by applying to at least 1 surface of (I), a liq. (iv) contg. a
 solids constituent comprised of (II). The liq. volatiles of (iv) are
 removed. (I) is then impregnated and coated with a viscose soln.
 The viscose is then regenerated.

(III) is used as a sausage casing. The colourant does not
 damage the mechanical properties of (III). (5pp)

D13: OTHER FOODSTUFFS

with a pair of stirrer blades. One stirrer blade pref. has a flexible,
 swinging flak which strikes the shield at each revolution. The
 rotor can be turned by electric motor or manually.

Used for dispensing predetermined measures of coffee powder,
 e.g. for filter percolators, coffee vending machines etc. The
 dispenser is simple and inexpensive to construct. It is easily used
 and easy to clean. (10pp)

KIRK- ★ D13 71797 D/40 ★ BE -888-897
 Prepn. of high quality ice cream with fat added after a first
 mixing - using specified amts. of skimmed milk powder and
 lactose
KIRK CHEMICALS A/S 22.05.80-DK-002234
(16.09.81) A23g
 21.05.81 as 888897 (597AS)

The constituents fats, skimmed milk powder, sugar, lactose,
 stabilisers, emulsifiers, opt. flavouring and/or colourants and
 water, apart from the fats are mixed with addn. of lactose. The

mixt. is kept at 30-50 deg.C for 1-3 hrs. and then the fats are added. The amts. of milk powder and lactose used are 4-10% of each. The mixt. is then pasteurised, homogenised, cooled and frozen. A lactose compsn. used in the prepn. contains 80-90% lactose, 8-18% stabilisers and emulsifiers and about 1% lactose.

Process enables high quality icecream in place of some of the milk powder. (10pp)

GENO ★ D13 71806 D/40 ★CA 1107-123
Prodn. of intermediate-moisture pet foods - with low-temp. pasteurisation by steam injection

GENERAL FOODS CORP 26.10.76-US-735724

C03 (18.08.81) A23k-01/10

29.09.77 as 287807 (367AT)

Prodn. of intermediate-moisture animal food is carried out by (a) coarsely grinding meaty materials; (b) mixing with at least 15 wt.% of a liq. polyhydric alcohol; (c) finely grinding the mixt. so that most of the meat particles have a dia. of 0.05-0.10 inch or less; (d) blending with non-meat nutritional materials and preservatives (saccharides, edible salts and/or sorbates); (e) pasteurising the blend at a temp. below 170 deg.F by agitating the blend and injecting steam in a continuous cooker with a residence time of 30-90 sec.; (f) shaping the product into the desired form; and (g) packaging the shaped product in a moisture-impermeable material.

Step (e) is pref. effected at 150-165 deg.C with a total exposure time to direct steam of 30-90 (esp. 30-45) sec. The pasteurised blend is pref. cooled before shaping.

Pasteurisation at relatively low temps. improves the palatability of the product. (20pp)

INTE ★ D13 71818 D/40 ★DD-149-307
Organic solvent-contg. waste air purificn. - by solvent fermentation for single cell protein prodn.

INTERDRUCK 29.02.80-DD-219339

C03 (D16 E19) (08.07.81) A23j-01/18 C12n-01/26

29.02.80 as 219339 (200HM)

Organic solvent-contg. waste air from industrial plant, e.g. printing works, etc., is used as C-source for single cell protein prodn. by solvent fermentation. The solvent can be used (a) directly, as a solvent-air mixt. in which the waste air simultaneously functions as O₂-donor, or (b) as a liq. obtd. after separation from the waste air, e.g. by absorption.

The fermentation nutrient soln. can contain an additional C source, e.g. molasses or sulphite waste liquor. Candida utilis yeasts can be used as micro-organisms, e.g. in fermenting an EtOH-contg. waste air from intagli printing works.

The prods. can be used as protein-rich feedstuffs. Waste air purification is achieved in addn. to microbial protein prodn. (5pp)

ASAN = ★ D13 71867 D/40 ★DE 3007-829
Prodn. of vitamin-B concentrate for nutritional purposes - by autolysis of alcohol- and acid-tolerant yeast residues from dry wine prodn.

AS USSR ANIMAL EVOL 29.02.80-DE-007829

B05 C04 (24.09.81) A23k-01/16 A23l-01/30 A61k-45/06 C05g-01

29.02.80 as 007829 (280NS)

Prodn. of a vitamin concentrate for nutritional purposes is by autolysis of an initial raw material, and sepn. and concn. of the autolysate, there is used as the initial raw material a by product of dry wine prodn. obtained after separating off the young wine and consisting of a residue of the original yeast strains which is highly tolerant to the elevated concns. of alcohol formed as a result of fermentation and to grape must pH values below 3-5. After separation from wine residues, the raw material is subjected to autolysis by pressing followed by 1.5 to 3.0-fold dilution, then the autolysate is heated to 80-90 deg.C, cooled to 0-2 deg.C, separated from the precipitate, and concentrated to the required concn.

Prodn. of a vitamin concentrate contg. B-group vitamins, amino acids and trace elements suitable for use as a food additive. The concentrate can also be used on its own for oral treatment and prophylaxis of vitamin B deficiencies, e.g. after abdominal operations when residue-free nutrients are needed. The concentrate can also be used in agriculture as a fertilizer.

The process uses an industrial by product readily obtainable on a large scale. (20pp)

LASC/ ★ D13 71888 D/40 ★DE 3008-836
Food (supplement) extract for liq. consumption - contg. portions enveloped, pref. encapsulated in water-soluble, neutral-tasting material esp. gelatin

water-soluble, neutral-tasting food-material, esp. gelatin.

In a further embodiment, the envelope can contain at least more food and/or condiment portion, e.g. milk, sugar sweetener, or a liq. e.g. an alcohol-contg. additive.

The portions can be preserved in correct quantities for use retain their freshness and aroma. (8pp)

ENDE/ ★ D13 71969 D/40 ★DE 3010
Coffee beverage laced with exotic fruit juice - pref. com marakuja, mandarin, kiwi, avocado and lychee fruit juice preserved in alcohol

ENDER J 17.03.80-DE-010240

(24.09.81) A23f-05

17.03.80 as 010240 (200KB)

New coffee beverage compsn. contains a small quantity of ad exotic fruit juice-contg. liq. pref. prepd. from maraku mandarin, orange, kiwi, avocado and lychee fruit. An alcohol-free, pleasant, appetising, vitamin C-rich beverage obtd.

The added juice pref. consists of one-third marakuja-, one-mandarin orange; one-tenth kiwi-, one-twentieth avocado one-twentieth lychee fruit juice. The sweet marakuja fruit can be rounded off by adding the finely ground peel of mandarin orange to 1 l added juice. (8pp)

TUCH/ ★ D13 71971 D/40 ★DE 3010
Animal e.g. pig feed pre:concentrate - to reduce odour of and excrement contg. a polyhydric alcohol, a saturated fatty and a carrier

TUCHER W 17.03.80-DE-010250

C03 (24.09.81) A23k-01/16

17.03.80 as 010250 (280KB)

A pre-concentrate consisting of 20-50 wt.% of at least one alc 2-50 wt.% of at least one completely or predominantly satd. acid and 0-96 wt.% of at least one substance acting as a material (e.g. crystalline or amorphous silica, molasses, extraction residue, vegetable or animal meal), the ratio polyhydric alcohol to fatty acid being 1:0.4 to 1:2.4 w/w is used as an additive in an amt. of 0.1-5 wt.% to the fodder for mammals (esp. monogastria) to prevent the troublesome, penetrating odour of animal faeces.

Simple method reduces the unpleasant odour of animal excrement arising from the intensive rearing of meat animals such as pigs, without increasing the time required to reach marketable age and without adversely affecting meat quality (12pp)

ODER/ ★ D13 71977 D/40 ★DE 3010
Garlic-flavoured, meat-spicing and salad dressing compn. contg. cottage cheese, mayonnaise, skim milk and garlic-herb mixt.

ODERSKY P 18.03.80-DE-010325

(24.09.81) A23l-01/22

18.03.80 as 010325 (200KB)

Low-calories, garlic-tasting flavouring compsn. is prep. by homogeneous mixing, by wt. w.r.t. total wt., 40-60% esp. cottage cheese, 20-30% salad mayonnaise contg. 30-50% 24% low-fat milk contg. max. 2% fat and 4-6% flavouring materials contg. 0.5-10% garlic.

The compsn. is used to flavour esp. roast, grilled or boiled meats and salads. The compsns. can be stored over 2 months at 18°C without adding preservative and are easily digested. The flavour is maintained on storage and is not excessive. (8pp)

GIVA D13 14604 B/08 = DS
4-Cyano-tetra:hydro-furan-3-one(s) and 4-hydroxy derivatives intermediates for 4-hydroxy-3(2H)-furanone(s) used as flavouring agents

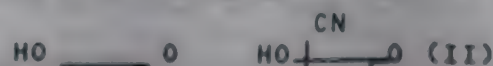
GIVAUDAN L & CIE SA 14.12.77-LU-078691 (11.08.77) 077955)

E13 T05 (24.09.81) *GB2002-380 C07d-307/32

11.08.78 as 860774 Based on EPG000907 (68AT)

Furanones of formula (I) (where each R is H, methyl or ethyl) are prep. by eliminating the HCN from the cyano cpd. of formula (II). (II) may be prep. by reacting a cpd. R-CH=CH-CN with an alkyl ester R-CHOH-COOR₁ (R₁ is lower alkyl) to form the furanone which may then be oxidised with an alkaline reagent. HCN is eliminated thermally or using a base. (II) are claimed, esp. 2,5-dimethyl-4-cyano-4,5-dihydrofuran-3-one.

(I) are useful as flavouring agents. (7pp) G01



SERL D13 57235 C/33 = EP G013-723
Prepn. of non-caking lignosulphonate binder for feedstuffs - by compounding dried sulphite wood-pulping liquor with calcium cpd.

SERLACHIUS G A OY 29.01.79-FI-000288

C03 F09 (23.09.81) *EP--13-723 A23k-01/20

06.12.79 as 104974 (945TM) (E) DE2749108 DK-131966 GB1339830 US3035920 E(AT BE CH DE FR GB IT NL SE)

Prepn. of a non-caking lignosulphonate binder for pelleting feedstuffs comprises compounding dried Ca, Mg or Na-based residual pulping liquor obt'd. from the sulphite cooking of wood with sufficient Ca (hydr)oxide-contg. material to yield a prod. of pH above 5 (pref. 6-9) as measured in a 5% aq. soln. at room temp.

Suitably 1-3 wt.% of the Ca cpd. is added, calculated as CaO. The addn. may be simultaneous with spray-drying of the liquor.

Prod. is used for a large range of cpd. feed ratios and for producing hay, grass meal and alfalfa pellets. (6pp)

FINN/ * D13 72074 D/40 ★EP--36-124
Ultrahigh temp. treatment of prods. contg. bacteria - in preheating, heating and cooling zones with circulating heat carrier medium for energy savings

FINNAH J 15.03.80-DE-010013

+ P34 Q78 (23.09.81) A23c-03/03 A23l-03/22 A61l-02/04 F28d-07/10

03.03.81 as 101505 (38HM) (G) No-Citns. E(FR GB IT NL SE)
System for the heat treatment of food, especially of milk and milk products, which contain germs, to improve their keeping quality, applies a first heat carrier medium in indirect counter-flow heat exchange in a preheating zone. A second medium is applied in a high-temperature zone to raise the temperature to the final level, and a third heat carrier medium is applied in a cooling zone.

The medium for the first and third zone is the same (water) and is circulated in a closed circuit. The medium for the second zone is hot water or steam and is merged with the other two on leaving the high-temperature zone.

This system has a better energy balance and a shorter treatment time. It eliminates any risk of any product alteration by the treatment. (41pp)

WILL/ * D13 72109 D/40 ★EP--36-179
Formed potato prod. prepn. - by mixing shredded blanched potato with natural potato binder

WILLARD M J 17.03.80-US-130600

(23.09.81) A23l-01/21

11.03.81 as 101796 (478HM) (E) US3751268 US3410702 US3399062 US4109024 US3987210 GB1509721 DE2062481 GB1316474 E(CH DE FR GB IT LI NL)

Formed potato (I) prod. capable of being deep-fat fried is prepd. as follows: (a) (I) which have been heat-treated to inactivate enzymes and gelatinise starch are shredded; (b) a finely divided natural (I) binder is prepd. from another portion of heat-treated (I) by retrograding the amylose component of starch naturally present in (I); and (c) the shreds of step (a) are mixed with the retrograded binder of step (b) to afford a (I) patty capable of being deep-fat fried.

Prepd. (I) patties may be deep fried to afford hash brown (I) patties on a high-speed commercial basis. The patties may be extruded with minimal sticking problems, do not disintegrate on deep-fat frying, and may then be deep frozen. In addn., fat drip when the patties are reheated e.g. in pop-up toasters is reduced. (41pp)

PAKC- D13 49881 C/29 = EP--36-227
Lollipop which can be blown like pan-pipe - produced on rotary drum machine with chain of mould covers

PAKCRAFT LTD (AQUA) 29.02.80-BE-881989 (29.02.80-BE-058433)

(23.09.81) *BE-881-989 + A23g-03/02

23.02.81 as 200212 (1014AS) (E) No-Citns. E(AT CH DE FR GB IT LI LU NL SE)

The block of sweetstuff forming the head of a lollipop has, at the end turned away from the stick, a recess. This is of such a size and shape that when it is blown as is a Panpipe a flutelike note can be heard. The recess widens out conically towards the end, the conicity being for pref. as 1:50. On its outer surface, close to the recess, the head of the lolly has a groove, and at the stick end it is rounded.

Used to produce a novelty without any extra work being required and without any wastage of material. The groove indicates the position of the lip to sound the note. (10pp)

STRK * D13 72128 D/40 ★EP--36-2
Multistage evaporation of liquid esp. milk - using vapour recycling with mechanical compression between stages

STORK FRIESLAND BV 17.03.80-NL-001576

(23.09.81) A23c-01/12 B01d-01/28,

13.03.81 as 200282 (295DH) (E) FR2442886 CH-192147 CH-262259 CH-228206 GB-187260 DS1142162 NL6515445 E(AT BE CH DE FR GB IT LI LU NL SE)

A liquid is heated in an evaporator by contact with vapour. Concentrated liquid is advanced to a downstream stage at which the liquid has a lower boiling point and is again contacted with vapour to further concentrate the liquid. Vapour from downstream stage is then mechanically compressed and fed to upstream stage.

The stages of the apparatus are arranged in groups and the liquid passes serially through each stage. Each group has a smaller number of stages than its adjacent upstream group. Vapour is recycled through each group by a single mechanical compressor.

As the liquid becomes more concentrated it passes through groups of less stages. In the final stage the maximum temperature differential exists between the liquid and vapour yet the risk of dry boiling is minimised. (17pp)

CETU- * D13 72133 D/40 ★EP--36-25
Aspartame prodn. from synthetic polypeptide - produced by cloned microorganism

CETUS CORP 14.03.80-US-130462

B05 E14 (23.09.81) A23l-01/23 C07c-103/52 C12n-01/20 C12n-1 C12p-21/02 C12r-01/19

02.03.81 as 300857 (367BE) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of aspartame, i.e. aspartyl-phenylalanine methyl ester (I), is carried out by first synthesising double-stranded DNA in which a coding strand has alternating codons for Asp and Phe in sufficient no. to produce a polypeptide (II) which is stable in a predetermined host microorganism.

The DNA strand is then inserted into a cloning vehicle so that the resulting chimera directs the synthesis of (II), the chimera is introduced into the predetermined host microorganism, and the microorganism is cultivated to produce (II). (II) is then converted to (I) by (a) benzylating the free COOH gps. in the Asp units; (b) fragmenting the benzylated polypeptide to produce benzyl-Asp-Phe; (c) methylating the COOH gp. in the Phe unit; and (d) debenzylating the Asp unit by hydrogenolysis.

(I) is an artificial sweetener. The process allows (I) to be produced in large quantities once the (II)-producing microorganism has been developed. (18pp)

MECC- D13 84354 A/47 = GB 1599-003
Pelletiser drum quick coupling device - with conical wedges for rapid fixing to drive head, e.g. for feedstuffs pelletiser

MECCANICA DIREFFO 13.05.77-IT-085580

C03 J04 P71 + P12 (30.09.81) *DE2756-647 + B29c-01/16 31.03.78 as 012646 (1358TM)

A cubing machine, e.g. for animal feedstuffs, has a mechanism for releasing and locking the die consisting of a resilient ring with conical surface with cuts permitting reduction in diameter, and an outer member with internal conical surface surrounding the ring. Studs are connected to the ring and springs are held in compression by stud heads.

The ring is drawn onto the member surface so that the ring is reduced in diameter to clamp its interior surface onto the die. The studs are movable axially so that the ring can expand to release the die. The member is pref. an outer hardened steel ring and an annular piston engages the studs to release the resilient ring from the outer ring. (3pp)

BEPE- D13 44848 C/25 = GB 1599-016
Appts. for dewatering curd cheese - with screening endless belt looped around rotatable pressing drum

BEPEX CORP 16.05.77-US-797569

P13 + P71 (30.09.81) *US4206-696 + A23c-19/02 B30b-09/24 03.05.78 as 017432 (1358TM)

Appts. for processing fresh cheese curd with substantial liq. content has a horizontal rotatable cylindrical drum with a plastics endless belt having higher strength opposite sides free from screen openings. Rolls carry the belt horizontally, then downwardly and around the lower half of the drum, returning under the drum and upwardly to the initial level.

Curd is fed to the horizontal section and is pressed between belt and drum to express the liquid. The belt is tensioned so that its edges remain against the drum while the central region can flex to accommodate the curd., and tension can be adjusted to give the required final liquid content. (8pp)

METB ★ D13 72259 D/40 ★ GB 1599-027
Appts. for mfg. arctic roll - includes flexible conveyor belt marginally deformable to fold sponge around extruded ice-cream
METAL BOX CO LTD 02.12.76-GB-050215
(30.09.81) A23g-09/24

27.02.78 as 050215 (295BZ)
A cylindrical confectionery product consists of an extruded centre wrapped in a surround comprising at least one further component. The product is mfd using an apparatus which includes a flexible belt conveyor with a horizontal upper run, the belt being driven along an endless path. The extruded component superimposed on the further component is delivered to the belt at the upstream end of its upper run. Ploughs act on the marginal edges of the belt to raise the marginal edges of the further component progressively upwards and inwards until they encircle the extruded component.

The apparatus is used to form a confectionery product such as an Arctic roll. (4pp)

STAK- D13 38581 A/22 = GB 1599-092
Feeding natural cellulose fibre into steam pressure vessel - for mfr. of fodder from waste wood chips, straw, bagasse etc.

STAKE TECHN LTD 24.01.77-US-762094
C03 F09 Q35 (30.09.81) *BE-863-159 + B65g-33/14

23.01.78 as 002574 (006MR)
Fibrous ligno-cellulose material of 10 to 50 wt.% moisture is fed into a steam pressure vessel, at up to 300 psi, by a screw conveyor rotating in an input pipe and compacting the material to a min. density of 45 cu.ft.lbs in the vicinity of the inlet to the vessel.

Specifically loose material is free-fall fed into the inlet zone of the screw conveyor for delivery as a pressure-tight continuous plug to the vessel, e.g. a wood chips digester for papermaking appts. (14pp)

UNIL ★ D13 72275 D/40 ★ GB 1599-272
Stable hardened ice cream - contains freezing point depressant, locust bean gum and xanthan gum etc.

UNILEVER NV 30.09.77-GB-040735 (06.10.76-GB-041602)
(30.09.81) A23g-09/02

05.01.78 as ----- (478RP)
Hardened ice cream contains sufficient freezing pt. depressants (I) to have hardness log C less than 2.9 at -20 deg.C, and is stabilised with: (a) locust bean gum and/or tara gum; and (b) xanthan gum and/or agar-agar and/or kappa-carrageenan.

The ice cream is stable, and at both deep freeze and normal temps. has the serving and eating properties conventionally expected at normal eating temps. The prod. does not have an unacceptably cloying mouth feel, and undue growth of ice crystals is prevented. (15pp)

LIOY D13 76755 A/43 = GB 1599-365
Spiro-5-isopropyl-bi:cyclo(3,1,0)hexane-2,2' oxirane isomers - useful as mint flavours-perfumes, made in fewer stages and higher yields from 3-isopropyl-2 cyclopentenone-1 and sulph(ox)onium methylide(s)

LION DENTIFRICE KK 29.09.77-JP-117160 (06.04.77-JP-039199)

E13 (30.09.81) *DE2814-558 A61k-07/16 C07c-31/13 C07c-49/36 C07d-303/04

03.04.78 as 012937 (+ 6.6.77, 16.6.77-JP-066567/8 071396) (945PW)
Spiro(5-isopropyl bicyclo(3.1.0)hexane-2,2'-oxiranes) are new. Cis and trans isomers are separately claimed. They are prepd. by reacting 1 mole 3-isopropyl-2-cyclopenten-1 one with 2-5 moles sulphoxonium methylide. The latter is obtd. by reacting a methylsulphoxonium salt with base.

The new cpds. are intermediates e.g. to trans-sabinene hydrate, used as a spearmint or peppermint flavour intensifier, and are useful per se as perfume and flavour constituents. The trans cpd. has fresh refrigerant, lightly greenish fragrance. The cis cpd. has woody, costus-like, refreshing odour resembling camphor. (23pp)

WIND/ ★ D13 72299 D/40 ★ GB 2071-999
Stripping Brussels sprouts from stalks - pulled through rotating head with knives mounted on pivot arms

WINDLE AB 20.03.81-GB-008763 (22.03.80-GB-009765)
(30.09.81) A23n-15/*

20.03.81 as 008763 (295HM)

Vegetable stalk is gripped between a pair of conveyors and pulled through a rotating head. The head includes knives which are forced against the stalk to strip it as it passes through the head. Each of the knives is mounted on a lever which typically carries a counterweight arranged to move outwards by centrifugal force and a shaft which moves the knife radially inwards against the

the head without obstruction. In one embodiment springs bias the knives outwards when the head is braked. In another embodiment the brake contacts an actuating disc which forces the knives outwards.

The apparatus strips Brussel sprouts from their stalks. The knives are mounted on the leading ends of the pivot arms to achieve an improved stripping action. (9pp)

NINB- ★ D13 72446 D/40 ★ J5 6102-755
Mature dried bonito prepn. - by inoculation of roast and dried bonito with aspergillus spp.

NINBEN KK 21.01.80-JP-004569

(D16) (17.08.81) A23b-04/04

21.01.80 as 004569 (5BZ)

The method is by inoculating at least one kind of mould selected from Aspergillus repens NE-1 (FERM-P4451), A. repens NE-2 (FERM-P4453), A. ruber NU-1 (FERM-P4454), A. ruber NU-2 (FERM-P4452) and A. ruber NU-3 (FERM-P4455), on the bonito which is previously roasted and dried and processing it as usual. Thus by inoculating the mould strains the maturing process can be shortened with suppressing the growth of undesirable microbes and the dried bonito of uniform good quality can be obtd. with high yield.

The mould strains are previously cultured aerobically at 20-30 deg.C for 6-10 days by solid culture. The obtd. spores are suspended in water and the suspension is sprayed on roasted bonito so that 10000-15000 spores are inoculated on a bonito. (7pp)

AJIN ★ D13 72447 D/40 ★ J5 6102-76
Heat resistant oil-water emulsion seasoning - obtd. by mixing meat extract, salt, oil and fat, sucrose ester and stabiliser and emulsifying

AJINOMOTO KK 22.01.80-JP-006168

(17.08.81) A23l-01/24

22.01.80 as 006168 (5KB)

Seasoning compsn. is heat-resistant O/W-type emulsified seasoning compsn. and is prepd. by mixing (a) 10-30 pt. of the extract of animal meat, (b) 5-15 pt. of common salt, (c) 10-45 pt. of edible oil and fat, (d) 0.1-5.0 pt. of sucrose fatty acid ester of HLB above 11, and (e) 0.1-10 pt. of emulsion stabiliser and emulsifying the mixt. As gummy viscosity-increasing agent, xanthan gum and locust bean gum can be used and as non-gummy viscosity-increasing agent, hydrogenated dextrin can be used.

By using sucrose fatty acid ester of HLB above 11 and gummy viscosity-increasing agent, heat-resistant O/W-type emulsion can be obtd. and by using the sucrose fatty acid ester together with heat-resistant gummy viscosity-increasing agent and no gummy viscosity-increasing agent, the improvement is further increased. The seasoning compsn. is highly preservative and has good taste and flavour and can be used as a substitute for a seasoning obtd. from pig bone, etc. (4pp)

SHIK- ★ D13 72448 D/40 ★ J5 6102-
Intestine-regulating foodstuff prodn. - by combining aq. extract exhibiting growth promoting effect on lactic acid bacteria with isomerised lactose

SHIKAMITSU HONSHAK 22.01.80-JP-006146

B05 (17.08.81) A23l-01/34

22.01.80 as 006146 (5AS)

Process comprises combining at least one aq. extract exhibiting growth-promoting effect on lactic acid bacteria such as yeast extract, chlorella extract, photosynthetic bacterial extract, with an isomerised lactose contg. lactulose as major component.

Food contains not only nutrients such as essential amino acids, nucleic acid-related substances, essential micro-elements, but also growth-promoting factor for intestinal lactic acid bacteria. Multiplication of harmful microbes is suppressed by acid produced by lactic acid bacteria and vitamins can be produced. Lactulose is the isomer of lactose which can be utilized specifically by lactic acid bacteria and with it the multiplication of lactic acid bacteria is promoted exclusively. (4pp)

DAII ★ D13 72812 D/40 ★ J5 610-
Purificn. of polyether poly:ol - by adding mineral acid, dehydrating and removing aldehyde under reduced pressure, while blowing in water, steam or nitrogen

DAIICHI KOGYO SEIYAKU 24.01.80-JP-007662

A25 (D21) (21.08.81) C08g-65/46

24.01.80 as 007662 (57RH)

Process comprises adjusting pH of system to up to 6.5 by adding mineral acid and carrying out dehydration and aldehyde removal at 50-150 deg.C under reduced pressure of up to 10 mmHg or under reduced pressure of up to 50 mmHg while blowing water, steam or N2 into the system, in the purification of polyether poly:ol.

after pH of the system is reduced to up to 6.5, mineral acid is removed with acid adsorbent such as synthetic magnesium carbonate, synthetic aluminium silicate, etc.

Process can give improved removal of by-prod. Purified glycerol polyol with no bad odour can be obtd. and it has excellent stability and is suitable for cosmetic material, food, etc. (p)

ME- D13 65363 A/37 = J8 1038-086
Desalting whey using anionic and cationic exchangers - in hydrogen carbonate and ammonium form respectively, then regenerating

SVENSK MEJER RIKSFO 10.05.77-SE-005424

(04.09.81) *BE-866-763 A23c-21

05.78 as 055413 (597DH)

Process comprises passing the whey first through a slightly basic ion exchanger in hydrogen-carbonate form and then through a slightly acid cation exchanger in ammonium form. The ion exchangers are regenerated by treatment with an ammonium carbonate soln. The ammonium and hydrogen carbonate ions present in the whey are then removed by evapn.

Process is effected in an installation comprising ion exchange columns with means of feeding and taking off, evaporations, a distillation appts. for the used regeneration soln. and a tank for regenerating soln.

The desalted whey is suitable for a wider application esp. in human foods. The process is simple and inexpensive and risks of protein denaturation and column blocking are small, and a high level of desalting (more than 90%) is obtd. (J54002371) (6pp)

ANE ★ D13 72970 D/40 ★ J8 1038-087
Colouring foods e.g. candy pink to reddish-violet - using colourant obtd. by immersing red cabbage in potassium sulphite, filtering, adding sulphuric acid and alcohol, etc. (J5 26.2.80)

SAN EICHEM IND KK 11.08.78-JP-098540

(04.09.81) A23g-03

08.78 as 098540 (22RH)

Red cabbage is immersed in potassium sulphite soln., followed by filtration, and to the filtrate is added sulphuric acid and alcohol, and the resultant is filtered to remove ppte. Using the filtrate, candy, etc. is coloured pink to reddish violet. (J55026817) (pp)

ISO D13 81728 B/45 = J8 1038-089
Ice cake prepn. - by combining 3-oxy-2-methyl-(4)-pyrone flavour precursor, bread flavour, reducing oligosaccharide and crude rice protein in waxy corn starch

NIPPON SHOKUHUIN KAK KK 24.03.78-JP-033653

(04.09.81) *J54126-760 A23g-03 + A231-01/19

03.78 as 033653 (5DJ)

The method comprises (a) combining a flavour precursor composed of 3-oxy-1-methyl-(4)-pyrone, Saint Jones-type bread flavour, reducing oligosaccharide and crude rice protein in waxy corn starch, (b) preparing mochi (rice cake) with the mixt. and (c) standing the mochi for cooling, cutting it in proper pieces and pasting or frying the pieces.

The sulphite odour and sweetness specific to waxy corn starch, can be removed and the rice cake which are equal in taste and flavour to those prepared from glutinous rice only, can be prepared in a short time.

Crude rice protein or protein content 45-60% is pref. used in an amt. of 0.05 (0.1-1.0) wt.% as protein on the dough. Pref. Saint-Jones-type bread flavour, 3-oxy-2-methyl-(4)-pyrone and reducing oligosaccharide are used in amts. of 20-300 pts.wt., 0.5-8 pts.wt. and 0.25-4 pts.wt. on 100 pts.wt. of the protein in crude rice protein respectively. (J54126760) (8pp)

MACH- D13 81729 B/45 = J8 1038-107
Frozen custard pudding prepn. - from a milk obtd. from soybean powder, water carrageenan or pharcelalan, mono-glyceride locust bean gum and sodium ascorbate

MACHIDA SHIGYO KK 17.03.78-JP-029817

(04.09.81) *J54126-767 A231-01/18

07.03.78 as 029817 (5JB)

The method comprises (1) preparing very fine soya bean milk from 7-11 pts. refined fine soy bean powder and 93-89 pts. water, (2) adding 0.4-0.7% carrageenan or pharcelalan, 0.1-0.3% monoglyceride, 0.1-0.3% locust bean gum and 0.05-0.1% sodium ascorbate, (3) adjusting its pH to 6 and (4) using the obtd. processed soy bean milk as starting material for the custard pudding instead of cow's milk.

The undesirable taste and flavour specific to soy bean milk can be removed. By adding sugar, and whole eggs to the bean milk, and by heating, adding perfume, filling the mixt. into vessels and freezing, a frozen custard pudding with excellent texture and preservability property, and which does not drip after thawing, can be prepd.

Carrageenan or pharcelalan is used as coagulation stabiliser.

The monoglyceride has a HLB of 8.12 and is used together with locust bean gum to improve the water-holding property and texture of the custard pudding. Sodium ascorbate used as antioxidant, prevents oxidn. of fat and suppresses the increase in viscosity when heating. (J54126767) (2pp)

AJIN D13 28434 C/16 = J8 1038-12
Aminoacid compsn. - useful in fluid supplement for admin. to patients after operation

AJINOMOTO KK 31.08.78-JP-106726

B05 (04.09.81) *J55033-446 A61k-09/08 + A61k-31/19

31.08.78 as 106726 (69AS)

The compsn. comprises (mol.%) L-isoleucine 5.33-5.89; L-leucine 13.21-14.60; L-lysine 13.15-14.53; L-methionine 2.46 to 2.72; L-phenylalanine 5.04-5.58; L-tryptophane 2.77-3.07; L-valine 7.63-8.43; L-cystine 2.85-3.15; L-tyrosine 0.23-0.25; L-alanine 4.67-5.17; L-alanine 5.83-6.45; L-aspartic acid 0.41-0.45; L-glutamic acid 1.43-1.58; L-threonine 4.09-5.58; glycine 15.35 to 16.97; L-histidine 2.28-2.52; L-proline 4.74-5.24; L-serin 3.52 to 3.90.

Part or whole tyrosine may be replaced with phenyl-alanine. pH of compsn. is 4.9-7.8 (6.0-7.5). Conc. of the aminoacid in supplement 3-20% pref. 5-10 wt.%. Amino acids may be used in forms of free acid, salt with metal such as Na or Ca, salt with cation such as mineral acid, e.g. HCl or H2SO4 or organic acid such as acetic acid or maleic acid etc. or in form of amine acid derivs. such as N-acyl derivs. (e.g. N-acetyl-L-tyrosin).

The compsn. promotes recovery of blood pattern and weight increase of patients after operation. (J55033446) (17pp)

AJIN D13 22341 C/13 = J8 1038-127
Aminoacid soln. for intravenous feeding - to normalise the aminoacid level in post operative patients

AJINOMOTO KK 08.09.78-JP-110892

B05 (04.09.81) *DE2936-236 A61k-31/19 + A61k-09/08

08.09.78 as 110892 (RH)

Aminoacid soln. for intravenous nourishment contains (mol.%) 6.95-7.69 L-isoleucine, 15.36-16.98 L-leucine, 3.36-3.72 L-lysine, 1.06-1.18 L-methionine, 7.99-8.83 L-phenylalanine, 7.74-8.56 L-threonine, 1.71-1.89 L-tryptophan, 16.35-18.07 L-valine, 2.28-2.52 L-cystine, 0.25-0.27 L-tyrosine, 4.22-4.66 L-alanine, 5.03-5.55 L-arginine, 0.66-0.72 L-aspartic acid, 0.40 to 0.44 L-glutamic acid, 11.58-12.80 glycine, 3.85-4.25 L-histidine, 4.77-5.27 L-proline and 1.39 -1.53 L-serine. The cystine can be replaced completely or partially by cysteine and/or methionine and tyrosine can be replaced partially or completely by phenylalanine.

The aminoacid soln. can be administered i.v. to post-operative patients, to normalise the level of aminoacids in the blood. (J55036457) (9pp)

NISW D13 41212 D/23 = J8 1038-167
Coffee whitener not causing feathering - contains phytosterol, sucrose fatty acid ester, protein and fat

NISSHIN OIL MILLS KK 13.09.79-JP-116689

(04.09.81) *J56042-546 A23c-11

13.09.79 as 116689 (42AS)

Coffee-whitener (I) contg. phytosterol (II), sucrose fatty acid ester (III), protein (IV) and fat (V) is new. Natural (I) produced from milk is sometimes substd. by artificial (I) contg. vegetable protein, defatted milk, vegetable oil, water-soluble polysacchride, etc. But such artificial (I) causes feathering, and a considerable amt. of phosphate is sometimes added into such artificial (I) for prevention of feathering. (I) causes no such phenomena although it does not contain phosphate.

(II) is e.g. a sterol-mixt. prepd. from soy bean. HLB of (III) is pref. high as possible, but (III) of low HLB can be used with (III) of high HLB. (II) and (III) are essential components. The contents of (II) and (III) in (I) are pref. more than 0.05, e.g. 0.005-0.5%, and more than 0.2%, e.g. (0.2-0.6%) respectively. Pref. (IV) is vegetable protein or milk protein. The contents of (IV) and (V) in (I) pref. are less than 5% for vegetable protein or less than 10% for milk protein, and 20-35%, respectively. (J56042546) (2pp)

DAIR- D13 86444 B/48 = J8 1038-168
Dairy blend butter substitute - prepd. from butter, water, gelling agent, and vegetable oil

DAIRY DEV LTD 10.05.78-NZ-187226

A97 (04.09.81) *GB2021-140 A23d-03 + A23c-15/12

10.05.79 as 056402 (478DH)

Dairy blend comprising a homogeneous compsn. of butter (I) and vegetable oil (II) is prepd. by (a) softening (I) so that it can be blended, (b) blending in an H2O-soluble gelling agent (III), (c) blending (II) in, and (d) cooling the prod.

Blend is suitable for use as a butter substitute, and has improved spreadability over butter at refrigeration temps. In addn. the blend has satisfactory consistency. (J54160778) (5pp)

SNOW ★ D13 72973 D/40 ★ J8 1038-169
Rapidly maturing liq. cheese mfr. - by mixing protease, lactobacillus and water with cheese curd and fermenting (J4 18.12.74)

SNOW BRAND MILK PRODUCTS 21.04.73-JP-044644
(D16) (04.09.81) A23c-19/02

21.04.73 as 044644 (22KB)
Protease, lactobacillus and water are mixed with cheese curd to give liquid culture medium, and using the medium, cheese curd is fermented to give liquid cheese. (J49132260) (5pp)

TAIC D13 38940 X/21 = J8 1038-184
Acidic foamed instant milk dessert - prepd. from milk, organic acid, fruit flavour, sugar etc

TAIYO KAGAKU KOGYO 04.10.74-JP-114485
(04.09.81) *J51041-474 A231-01/18

04.10.74 as 114485 (PW)
Sugar, organic acid such as citric acid, malic acid, fumaric acid, etc. flavour such as powdery strawberry flavour, powder lemon flavour, etc. gelatinising agent of low methoxypectin and protein-decomposing foaming agent such as soy bean protein, wheat protein, casein, etc. are mixed conventionally, and the mixt. is powdered.

To the powder hot water above 60 deg.C is added, and the mixt. is foamed while it is hot using a foaming machine. The foamed prod. is mixed with milk, and the mixt. is poured in a mould and cooled. The powdery mixt. can be preserved for long time and can be prepd. inexpensively. (J51041474) (2pp)

PRIP- ★ D13 D/40 ★ SE 8001-244
Drink for supplying water and carbohydrate(s) during exercise - contg. oligosaccharide(s) and/or polysaccharide(s) and mineral salts

PRIPPS BRYGGERIER A 15.02.80-SE-001244
(14.09.81) A231-02

15.02.80 as 001244 (903WB)
Beverage for quickly supplying water and carbohydrates during periods of heavy muscular activity is free from monosaccharides and contains a hypotonic soln. of soluble oligo- and/or polysaccharides.

It also contains mineral salts, e.g. NaCl in amts. not more than 3 g/l, pref. not more than 1.5g/l. It may also contain suspended particles of insoluble polysaccharides and flavourings and vitamins. The drink has osmotic pressure 7.5-1.0 atmospheres (pref. 6.0-2.5, esp. 5.5-3.0) at 25 deg.C.

RUBE = ★ D13 73066 D/40 ★ SU-793-986
Para-methoxy-benzaldehyde prodn. - by oxidn. of cresol with manganese dioxide in sulphuric acid, at specified redox potential

RUBEZHAN VOROSH MAC 30.03.79-SU-758729
B05 E14 (D23) (07.01.81) C07c-45 C07c-47/56

30.03.79 as 758729 (938WD)
Para-methoxy-benzaldehyde is used in pharmaceutical and food industries and in perfumery.

It is prepd. by the oxidn. of para-cresol with manganese dioxide in sulphuric acid medium at 69-72 deg. C, using above reagents in molar ratio of 1:(1.65-1.7)

The yield of the final prod. is increased and its purity is improved if the process is conducted at redox potential of 0.55-0.60V. After phase sepn. the organic phase is cooled to 9-10 deg. C and the crystalline prod. is sepd. by filtration and is purified by vacuum distillation.

The method increases the final prod. yield from 46-55% up to 73-75% and reduces the consumption of the oxidn. agent by 16%. Bul.1/7.1.81. (2pp)

FRYM- D13 47833 U/34 = US 4289-477
Foodstuffs frying appts. - for potatoes, fish hamburgers etc
FRYMASTER CORP (FRY) 04.02.72-US-223443 (01.03.74-US-447091)

P28 + Q73 (15.09.81) *NL7211-653 F23m-09/06

15.12.75 as 640740 Div.ex 3938948, 3809062 (+ 01.03.74-US-447091) (006DB)
Gas burner, esp. for heating a deep fryer for frozen foods, has a gas supply manifold with at least two discharge nozzles for convergent gas jets which meet before they hit a target mounted on the manifold. The target is inclined towards the jets, to intercept them and divert them into a combustion zone, into which the target reflects heat. Projections on the target surface promote turbulence between the gas and secondary air.

Pref. jets are diverted towards a vertical wall of the deep fryer, against which is the combustion zone. (8pp)

DAIL ★ D13 73539 D/40 ★ US 4289-614
Appts. for sepg. rubbish from bean sprouts - having vibrating belt moving rubbish in one direction and sprouts in opposite direction

DAISEI KIKAI KK 06.03.79-JP-025753 (06.03.79-JP-025752)

P43 (15.09.81) B07b-01/10

12.12.79 as 102914 (295AT)

An appts. for sepg. bean sprouts from waste includes a vibration frame with a perforated endless belt driven in a first direction. A cleaning device is stationary and removes deposits from the belt.

A vibrator vibrates the frame in a direction having a component opposite to the first direction. In one embodiment the belt is replaced by a series of screens arranged stepwise.

The appts. separates freshly harvested bean sprouts from refuse, bean shells, rootlets etc. The bean sprouts do not have to be immersed in water and thus their freshness-keeping properties are improved. (8pp)

INFL ★ D13 73565 D/40 ★ US 4289-661
Augmenting aroma of perfumes - by addn. of acetyl tetra:methyl-hydrindacene(s) or acetyl-methyl-butyl-di:methyl indane(s)

INT FLAVORS & FRAGR INC 18.09.80-US-188523 (20.10.78-US-953180)

B05 E14 (D23) (15.09.81) A231-01/23

18.09.80 as 188523 Div.ex 4209543 (+ 5.6.80-US-156736) (1248BZ)

Aroma of a perfume compsn. is augmented or enhanced by addn. of 4-acetyl-3,3,8,8-tetra methyl-as-hydrindacene (I), 6-acetyl-5-(3-methyl butyl)-1,1-dimethyl indane (II) or 5-acetyl-7-(3-methyl butyl)-1,1-dimethyl indane (III); or a mixt. of 5-acetyl-3,3,8,8-tetra-methyl-as-hydrindacene (IV) and (I) may be used, the wt ratio of (IV):(I) being 2:3; or a mixt. of (I), (II), (III), and (IV) is used.

Use of (I)-(IV) in foodstuffs, chewing gum, toothpaste, medicinal prods. tobacco, perfumes, perfumed articles etc. disclosed in US4209543 (Der. 49672C/28). (25pp)

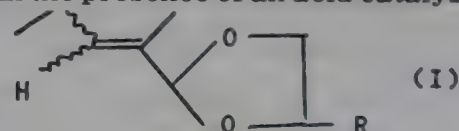
INFL ★ D13 73584 D/40 ★ US 4289-701
2-(1-Methyl-1-butenyl)-3-methyl-1,3-dioxolan - is a flavouring agent for food, chewing gum, medicines and tooth-paste

INT FLAVORS & FRAGR INC 24.08.77-US-827253

B03 E13 (D21) (15.09.81) C07d-317/10

24.08.77 as 827253 (916)

2-(1-Methyl-1-butenyl)-3-methyl -1,3-dioxolan of formula (I) is new. (where R is methyl). (I) are used in flavouring agents for food, chewing gum, medicines and toothpaste. It has a sweet fruity, gooseberry, green, aniseed, licorice flavour. (I) are prepared by reacting 2-methyl-2-pentenal with propylene glycol or ethylene glycol in the presence of an acid catalyst. (10pp)



INFL ★ D13 73587 D/40 ★ US 4289-702
1,3,5,5-Tetra:methyl-2-oxa-bi:cyclo-(2,2,2)-octane - useful enhancing eucalyptus aroma of foodstuffs, perfumes, medicine etc.

INT FLAVORS & FRAGR INC 07.08.80-US-176050 (20.10.78-US-953128)

B02 E13 (D23) (15.09.81) C07d-309/04

07.08.80 as 176050 Div.ex 4269862 C.i.p. 4195099 (+ 21.09.79-US-077539) (1248BZ)

1,3,5,5-Tetramethyl-2-oxa bicyclo(2.2.2)octane (I) is new. It is prepd. by cyclising 1,3,3-trimethyl-1-cyclohexene-4-ethanol heating with 40% H2SO4 and iPrOH.

Cpd. (I) is useful for augmenting or enhancing the fresh camphoraceous eucalyptus-like and patchouli-like aroma and taste characteristics of foodstuffs, perfumes, perfumed articles, colognes, chewing gums, toothpastes, medicinal prods., smoked tobaccos, etc. as described in US4269862 (der. 43965D/24). (21pp)

THOM D13 71934 C/41 = US 4289-615
Pyrimidyl-ureido-acetamido penicillin derivs. - useful antibacterials, animal feed additives and preservatives

THOMAE K GMBH 15.03.79-DE-910190

B02 C02 (15.09.81) *EP-16-374 A61k-31/50 C07d-499/68 C07d-499/70

14.05.80 as 149839 (+ 31.1.80-US-117103) (945RP)

Penicillin cpds. of formula (I) and their salts are new. In formula, A is phenyl, p-hydroxyphenyl, 2- or 3-thienyl or disubst. phenyl in which the substituents are Cl, OH or OCH3. NH2X. Z is (un)branched 1-6C alkylene or 3-6C cycloalkylene, cyano, hydroxy, mercapto, aminocarbonyl, aminosulphonyl, NR1R2, COR1, COOR1, NR1R2, NHCOR1, NHCOR1.

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18th November 1981

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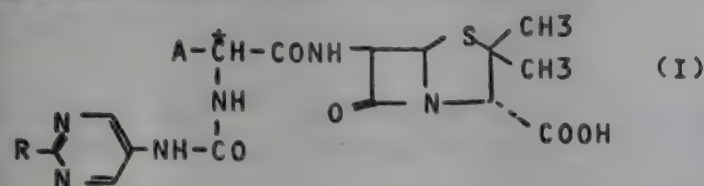
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* Despatched with material on Advice Note No. 43



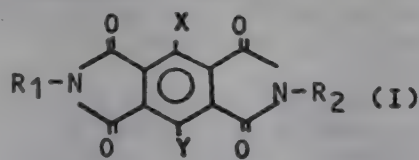
The cpds. are antibiotics effective against Gram positive and Gram negative bacteria. Pref. dose is 10-200 mg/kg per day. The cpds. can also be incorporated into foodstuffs or added to drinking water. (14pp)



ERI D13 33136 C/19 = US 4289-784
Mono and N,N'-di:subst.d.-pyromellitic di:imide cpds. - useful
Increasing efficiency of ruminant feed
MERCK & CO INC 23.10.78-US-954040 (22.04.80-US-142795)
C02 (15.09.81) *EP--10-440 + A61k-31/40 C07d-209/56
04.80 as 142795 (393TM)

romellitic diimides of formula (I) are novel and useful for
ministration to ruminant animals, to increase feed efficiency,
ft volatile fatty acid prodn. in the ruminants from acetate with
increase in propionate and butyrate and to suppress CH₄
mation.

tion.
 t1 is H, R2 is lower alkyl, lower alkenyl, lower alkynyl, lower alkoalkyl, lower alkanoyl, benzoyl, phenyl substd. by phenamido, OH, COOH, NO₂, CH₃S or hydroxy lower alkyl, lower alkyl substd. by 1-2 of OH, halogen, NO₂, lower alkoxy, OH, phenyl, hydroxy lower alkoxy, lower alkanoyloxy, lower alkenoxy, NH₂, mono- or di- lower alkylamino, mercapto, lower alkylthio, lower alkyl sulphinyl, lower alkyl sulphonyl, lower alkoxy carbonyl, carbamyl, hydroxy lower alkyl thio, hydroxy lower alkyl sulphinyl, hydroxy lower alkyl sulphonyl, hydroxy lower alkyl amino, di-(hydroxy lower alkyl)amino, lower alkanoyl amino or hydroxyphenyl, di-lower alkyl amino or amino substd. by lower alkanoyl, benzoyl or lower alkoxy carbonyl.
 pp) 0 x 0



PFO- ★ D13 73818 D/40 ★ US 4289-788
 instant powdered yogurt compsns - contg. lactobacillus culture,
 activated yogurt powder, gelatin, locust bean gum and acid
 ley citric acid

M P FOOD TECHN INC 25.06.79-US-051819
(D16) (15.09.81) A23c-09/12 A23c-23

quant powdered compsn. contains (by wt.); (a) 0.01-5% *Stobacillus* culture (I); (b) 1-35% deactivated yogurt powder (c) 2-25% gelatin (III); (d) 0.1-20% locust bean gum (IV); and 10-50% of a mixt. of acid whey and citric acid.

10-50% of a mixt. of acid whey and citric acid. Pref. compsns. contain (by wt.) 0.02-1.5% esp. 0.03-0.5% (I); 10-20% esp. 20-25% (II); 3-20% esp. 4-7% (III); 0.5-10% esp. 1-3% (IV), and 12-30% esp. 15-25% of a mixt. of acid whey and citric acid. (I) is pref. that described in US3897307. Pref. (II) is spray-dried. Pref. (III) is H₂O-soluble. (IV) has particle size 80-250 μ and is pref. clarified.

The compsn. has prolonged shelf life, does not require refrigeration, and is readily and rapidly reconstituted with H₂O milk to give a prod. having a texture, taste, and nutritional sps. similar to natural yogurt. (6pp)

FO- ★ D13 73619 D/40 ★ US 4289-789
ant powdered yogurt drink compsn. - comprising
tobacillus culture, deactivated yogurt powder,
boxymethyl cellulose, hydrocolloid gum and acidulant

MP FOOD TECHN INC 25.06.79-US-051820
15.09.81) A23c-09/12 A23c-23

6.79 as 051820 (558NS)
 mpsn. comprises a mixt. of 0.01-5 wt.% (A) Lactobacillus
 ure; 1-35 wt.% (B) deactivated yogurt powder; 0.01-10 wt.% (C)
 boxy methyl cellulose; 0.1-20 wt.% (D) locust bean gum; and
 0 wt.% (E) a mixt. of acid whey and citric acid.

0 wt. % (E) a mixt. of acid whey and citric acid. The compsn. may also contain a sweetener such as a mixt. of glucose and sucrose (10-60 wt. %), a dispersing aid such as lecithin (0.1-10 wt. %), non-fat dried milk (0.1-80 wt. %), drying agents such as tri-Ca phosphate, Na aluminosilicate or SiO₂ (0.1-5 wt. %), colouring agents (0.1-5 wt. %) and colourants (0.001-1.0 wt. %). It is prepd. by dry-blending, pref. at ambient temp. and press., and packaged in a hermetically sealed envelope.

The compsn. may be reconstituted to form a yogurt drink. It requires no refrigeration and has a prolonged shelf life. (5pp)

GENO ★ D13 73620 D/40 ★ US 4289-790
Effervescing and crunchy chocolate candy - consisting of
crunchy core, and protective matrix of alternate layers of
chocolate and gasified candy

GENERAL FOODS FRANC 25.02.80-US-124029
(15.09.81) A23g-03

25.02.80 as 124029 (478AT)

Confection consists of (a) a crunchy core (cereal, dried fruit, nuts, or mixts.); and (b) a protective matrix coating consisting of alternate layers of chocolate (I) and gasified candy (II), with the innermost and outer layers being (I). (II) has particle size -4 to +40 US Standard Sieve.

The core is pref. caramelised with a sugar before it is coated with (I), and has H₂O-content less than 4% by wt. (I) has fat-content 30-40 wt.%, H₂O-content not more than 2 wt.%, and is pref. milk chocolate in liq. form. (I) is pref. natural chocolate. (II) is pref. prepd. from 30% lactose and 70% sucrose by conventional methods (US4001457 and 3985910 etc.). (II) has H₂O-content 1-5% pref. 2-3% and pref. has particle size -14 to +30 US Sieve Series or -20 to +40 US Sieve Series.

The confection does not require H₂O resistant packaging, makes use of (II) fines which normally cannot be used, and when eaten provides a variety of sensory effects including a sizzling or popping mouthfeel sensation. (5pp)

MAYR ★ D13 73621 D/40 ★ US 4289-791
Ice cream cone with sanitary jacket - sepd. by adhesion-reducing
agent and selectively removable without damage

MARYLAND CUP CORP 04.05.79-US-036227 (10.03.78-US-885278)

Q35 (15.09.81) A21d-13 B65g-59

04.05.79 as 036227 (+ 10.3.78-US-885278) (295AT)

A sanitary jacket is adhered to an ice cream cone by interposing a mixt. of water and an adhesion-reducing agent between the jacket and the cone. The jacket and cone are brought into juxtaposition with the mixt. interposed between them and are then dried.

The adhesion-reducing agent consists of a food grade, non-toxic and hydrophilic material. It may consist of an alcohol, a natural sugar syrup, or a surfactant mixed with water in an amt. sufficient to cause the adhesion while at the same time permitting sepn. of the jacket and cone with no jacket or cone tearing.

A baked ice-cream cone is provided with a sanitary protective jacket which is easily removed without damage to the cone. (7pp)

LAND-★ D13 73623 D/40 ★US 4289-793
Mr. of large rectangular cheese blocks - with whey drainage
through tapered, perforated posts with diamond-shaped cross-
section

LAND OLAKES INC 12.05.80-US-148990 (08.01.79-US-001598)
(15.09.81) A23c-19/05

12.05.80 as 148990 (295AT)

Cheese is mfd. from curd by filling a container having a removable bottom and side walls and an open top. Perforated and tapered posts extend from the bottom wall for substantially the height of the container. Each post has a diamond-shaped cross-section. A pressure plate exerts a downward pressure on the curd to compact it and to expel whey through the posts. The pressure is continued until the surface of the pressure plate is just spaced from the tops of the posts. The container is then inverted and the bottom wall together with posts is removed.

Further downward pressure is applied to cause closing of the apertures produced by post withdrawal and to permit knitting of the cheese to provide a block of uniform texture.

For mfg. large rectangular blocks of cheese weighing six to seven hundred pounds. (11pp)

GENO ★ D13 73624 D/40 ★ US 4289-704
Gasified candy with pronounced popping sensation when eaten -
obtd. by cooling gasified sugar melt at superatmospheric
pressure

GENERAL FOODS CORP 12.03.80-US-129513
(15.09.81) A23g-09

12.03.80 as 129513 (558)

Gasified candy is prepd. by gasifying a sugar melt at superatmos. press. and cooling the melt below its fusion temp. under superatmos. press. The melt is kept at below 280 deg. F during the gasification to produce in the candy prod. observable gas bubbles, the majority of which have dia. above 225 microns. The gasifying gas is CO₂, N₂ or air.

The sugar melt pref. comprises glucose, fructose, sucrose, lactose and/or corn syrup. The majority of observable gas bubbles in the prod. suitably have dia 225-350, pref. 300-350, microns.

The candy produces a more pronounced popping sensation when eaten, compared with conventional gasified candy. The number of unacceptable batches produced can be kept low. (6pp)

SUOS- ★ D13 73699 D/40 ★ WP 8102-507
 Coarse-ground beverage compsns. - contg. finely powdered beverage material and granular or fibrous carrier
SUOMEN OSUUSKAUPPOJ(SALO/) 12.03.80-FI-000769
 (17.09.81) A23f-05/10
 10.03.81 as FI0016 (367AS) (E) US1762690 US2053106 US3695890
 US2393562 DE2535234 GB1401013 US4191786 GB1498119 N(DK JP NO US) E(AT CH DE FR GB NL SE)
 Granular or flaked compsns. for prepn. of beverages (coffee, tea, herbal tea, etc.) by infusion or boiling with a liq. comprise a finely powdered beverage-making material (coffee, tea, herbs, etc.) adhering to the surface of a granular or fibrous inert water-insoluble carrier, the product being ground to the desired particle size. The carrier is a polymeric or polymerising material and is

present in an amt. of 5-50%.

When used in coarse-ground form (suitable for percolation, filtration, etc.), the compsns. release more beverage-making material than the corresp. natural material of the same particle size. (8pp)

See Also

D12 GB1599195	D16 DS2860790	D16 J80138193
D16 SU794072	D18 US4289145	D23 BE888911
D23 BE888912		

D14: FOODSTUFF MACHINERY

MATU ★ D14 71808 D/40 ★ CA 1107-170
 Vegetable peeler with rotating slotted concave disc - mounting within lidded container with tumbler element mounted on container wall

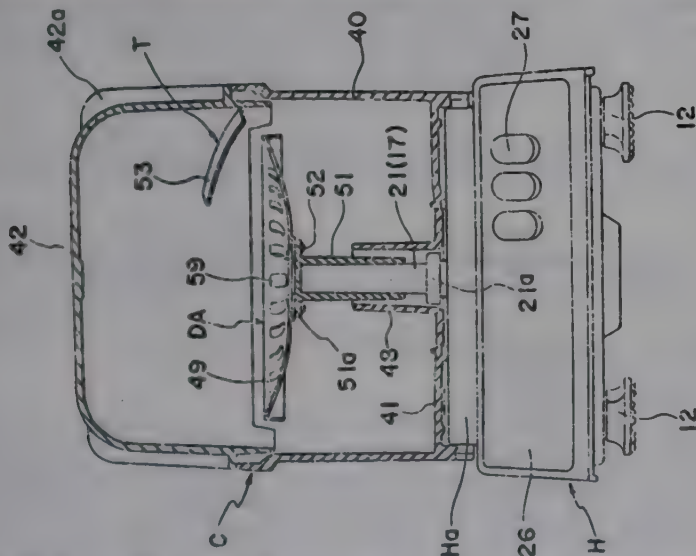
MATSUSHITA ELEC IND KK 14.04.78-JP-044699

X27 (18.08.81) A23n-07/02

12.04.79 as 325444 (295BZ)

A vegetable scraper or peeler includes a power driven shaft, the shaft extending up through the base of a container. A concave peeler disc is rigidly mounted on the upper end of the shaft with its concave surface facing upwards. The disc has scraping slots, the leading edge of each of the slots being spaced downwardly from the plane of rotation of the disc. Pref. the container has a lid with a tumbling element disposed outside the perimeter of the peeler disc and located either on the interior surface of the container or lid.

The device is intended for domestic peeling or scraping of vegetables such as potatoes. (32pp Dwg.No.2)



MATU D14 78372 W/47 = DS 2338-504
 Domestic fruit juice extractor with centrifugal separator - and removable mixing jug with paddles rotated when control lever is operated

MATSUSHITA ELEC IND KK 01.08.72-JP-077499 (31.07.72-JP-077216)

P28 (24.09.81) *US3916-776 A47j-19/02

30.07.73 as 338504 (39KB)

A liquidiser for fruit etc. consists of a motor with a vertical shaft, suspended in vibration absorbing rubber pads and driving a perforated bowl with a grating bottom, against which the fruit can be pressed by a pestle. A partition divides the upper part of the casing into a chamber for the solids and one for the juice.

The juice runs off an inclined plane into a space where a beaker can be pushed in. The beaker has at the bottom a whisk on a spindle passing through the bottom and carrying a magnetic disc. Another magnetic disc, driven by the motor, acutates the whisk.

This combines the liquidising with a whisking operation.(PS) (7pp)

MEIP D14 50037 B/27 = GB 1599-151
 Appts. for easily-wettable granules prodn. from powder - in which powder and steam are uniformly mixed after passing down concentric vertical tubes

MEIJINYUGYOKK 04.11.77-JP-132939

J04 (30.09.81) *J54066-381 B01j-02

03.05.78 as 017539 (1358TM)

an outer vertical cylindrical casing with top powder feed and open bottom, a shorter inner casing shorter than the outer and closed at the top, and a compressed air supply connected to regularly spaced slits tangentially in the outer casing to produce a whirling stream in the annular gap.

A steam supply extends through the outer casing into the inner so that steam escaping from the inner casing bottom blows against the curtain of powder from the inside, while a second supply blows steam against the curtain from the outside. The appts. pref. produces granules 250-2380 microns in size and porous between adhered particles. (7pp)

CHEM- ★ D14 72309 D/40 ★ GB 2072-030
 Universal batch processor for foods and chemicals - has cooperable heat exchanger and agitator elements for mixing heating and cooling

CHEMETRON PROCESSE 10.03.80-US-128592

J04 (30.09.81) B01f-07/16 B01f-15/06

09.03.81 as 007316 (67KB)

Universal batch processor for material contained in a kettle or similar vessel comprises a heat transfer element which is immersed in the material having an open-ended hollow-walled tubular drum presenting inner and outer sidewalls with a closed annular cavity between them. Heat exchange fluid is circulated through the cavity and a rotatable scraper has blades which scrape the inner and outer sidewalls simultaneously.

Used in batch processing food and chemical prods. The processor has cooperable heat exchanger and agitator elements which can mix, blend, heat or cool any liq. or semi-solid material. (8pp)

SMIT/ ★ D14 73622 D/40 ★ US 4289-792
 Microwave treatment of food - with high velocity jets of heated gas directed onto food to remove surface moisture

SMITH DP 16.03.79-US-021261 (19.05.76-US-687982)

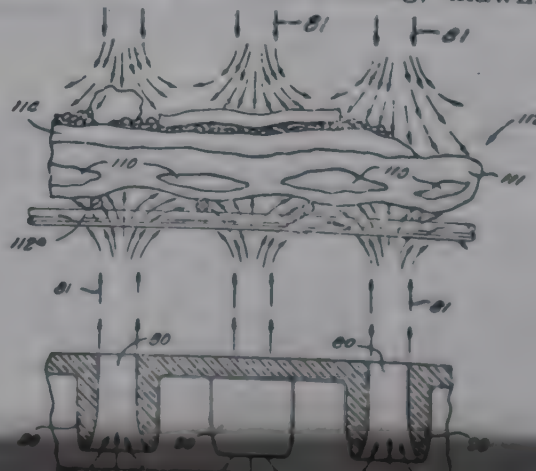
X27 (15.09.81) A21d-06

16.03.79 as 021261 Div.ex 4154861 (295KB)

Food is thawed, cooked or heated by delivering microwave energy to it and simultaneously directing streams of high velocity gas perpendicularly to the food surface. The streams impinge against discrete areas of the food prods. before the gas is diffused. This wipes away the boundary layer of air and moisture.

The food prods. are moved relative to the gas streams. Heat is transferred to the surface of the food prods. at areas on which the gas streams impinge to increase the surface temp. at the areas of impingement before these areas move out of impinging relation with the gas streams.

The appts. may be used for cooking, thawing or browning



foods, e.g. frozen fish, meat patties, chicken pieces, pies. The jets of gas can produce surface browning and heating by removing moisture from the surface of the produce. (16pp Dwg.No.6)

D15: WATER TREATMENT

MEDE/ ★ D15 D/40 ★ BR 8001-295
Methane gas digester
 MEDEIROS CS 08.02.80-BR-001295
 E17 (08.09.81) C02c-01/14

KOBA/ ★ D15 D/40 ★ BR 8001-422
Purification of effluent water - from organic chemical industry by symbiotic micro organism
 KOBAYASHI M 11.03.80-BR-001422
 (15.09.81) C02p-03/34

MAIA/ ★ D15 D/40 ★ BR 8001-447
Continuous charge and discharge anaerobic digester
 MAIA N A 12.03.80-BR-001447
 (15.09.81) C02f-11/04

SINO- ★ D15 D/40 ★ BR 8103-226
Treatment of toxic by-product from alcohol distn. - for reduction of BOD and suspended solids
 SINOP AGROQUIMICA 25.05.81-BR-003226
 (15.09.81) C12f-03/10

ALEX/ ★ D15 71809 D/40 ★ CA 1107-267
Hydrophobic, oleophilic porous granular oil absorbent compsn. - which floats on contaminated water and then sinks with absorbed oil

ALEXANDER DS 18.04.78-CA-301338
 A97 H03 (18.08.81) B01j-01/22

18.04.78 as 301338 (558AT)

A hydrophobic and oleophilic, porous granular absorbent compsn., which is lighter than water when dry and heavier than water when the pores are loaded with liq. oil, comprises a solid cellulosic porous buoyant material whose interstitial voids are impregnated with a hydrophobic agent and a rubbery polymeric solvent for oil; and solid particles of a sinking agent which are held together and adhered to the surface of the buoyant material by the oil solvent.

The compsn. is prepd. by mixing an emulsion of the solvent, buoyant material and hydrophobic agent, mixing the prod. with the sinking agent and a coagulant, drying the obtd. intimate mixt. and comminuting it to suitable size particles.

The compsn. floats on an oil-contaminated water surface and, upon absorbing oil, sinks to the bottom of the water. Environmental contamination is avoided. (19pp)

UNTC ★ D15 71812 D/40 ★ CA 1107-413
Hard water treatment providing soft and potable water - with waste water from reverse osmosis module recycled through ion exchanger

ECODYNE CORP 26.01.78-US-872540
 (18.08.81) C02b-01/22

15.11.78 as 316308 (295AT)

Water is treated by passing it through an ion exchanger. Some of the treated water is then passed through a reverse osmosis material to produce potable water and waste water. The waste water is recycled through the ion exchanger while the potable water is recovered.

Pref. the potable water is stored downstream of the reverse osmosis material and the vol. of the stored potable water is equal to or less than the vol. of water that can be stored in the ion exchanger.

Used to produce separate supplies of soft water and potable water with a low dissolved solids content from a supply of hard water. Waste water loss is minimised. (14pp)

BOSH/ ★ D15 71830 D/40 ★ DD-149-355
Water and steam cycle alkalisation to prevent corrosion - using fixed agent, esp. sodium hydroxide, and non fixed agent, esp. ammonia

BOSHOLM J 06.03.80-DD-219480
 (08.07.81) C02f-01/66

06.03.80 as 219480 (200HM)

In alkalising water/steam cycles, alkalisation is achieved throughout the whole cycle by simultaneously charging fixed alkalising agents, (A), esp. NaOH, and non-fixed alkalising agents, (B), esp. NH₃. (A) functions to set the desired pH in feed- and container-water and (B) to neutralise CO₂ generated by Na₂CO₃/NaHCO₃ dissociation in condensate.

(B), esp. as an aq. soln. is pref. added to feed water or additional feed water in stoichiometric quantities w.r.t. its bicarbonate- and carbonate content after thermal degassing. On using bicarbonate or carbonate-contg. feed water or on adding Na₃PO₄ for residual hardness formation, NaOH addn. for alkalising can be omitted, as sufficient NaOH is formed.

Corrosion in low to medium pressure stage plant, fed with bicarbonate-contg. soft water, can be suppressed throughout the whole cycle. The operating safety of such plant is increased. (5pp)

MASW ★ D15 71874 D/40 ★ DE 3008-725
Water treatment system - continuing air flow through tower after stopping water supply to blow clean contact elements
 MASCH BUCKAU WOLF R 07.03.80-DE-008725 (00.00.76-DE-617945)
 (24.09.81) C02f-01

07.03.80 as 008725 Add to 2617945 (39HM)

The parent patent DE2617945 described a system for water treatment, specially for the removal of dissolved surplus carbon dioxide of soft water, in a tower with several contact packings. After the water supply to the tower has been cut off, the air supply is continued until the contact elements have been dried out thoroughly.

The wet surfaces of the contact elements are thus blown dry by the air flows and any suspended particles are removed together with the residual water. This keeps them clean so that they need only be cleaned very rarely and downtimes are eliminated.

The result is that particles suspended in water can run off more quickly and that the growth of suspended particles such as iron, manganese etc. on the packing elements is prevented. (6pp)

DINN/ ★ D15 71881 D/40 ★ DE 3008-791
Aeration system with aeration tube near impeller - directing air jets down impeller cylinder

DINNENDAHL M 07.03.80-DE-008791

(24.09.81) C02f-03/12

07.03.80 as 008791 Add in 3010351 (39AS)

A vertical counterflow aeration system for activated sludge basins in biological treatment plant uses an impeller near the liquid level, in a vertical impeller tube with vertical laminae. An aeration tube for compressed air is installed in the impeller tube near the impeller and directs jets of air towards the bottom of the basin.

Air is thus in contact with the liq. on the down path as well as on the up path. As the air rising velocity must be subtracted from the descending liq. velocity on the down path, a longer mutual contact time will be the result. (7pp)

LINM ★ D15 71898 D/40 ★ DE 3009-151
Inoculant waste water nitrification sludge prepn. - by dehydrating nitrifying activation and/or drip filter plant sludge and storing under aerobic conditions

LINDE AG 10.03.80-DE-009151

(24.09.81) C02f-11

10.03.80 as 009151 (200HM)

Sludge inoculant for waste water nitrification is prepd. by extracting water out of excess sludge from a nitrifying activation- and/or drip filter plant and then storing under aerobic conditions. When needed, the inoculant is charged to a waste water to be nitrated in an activating tank or drip filter.

After water-extn., the inoculant can be stored, under aeration, up to several months without damage to autotrophic bacteria. The inoculant is always readily available. Transport costs are reduced. (7pp)

SIEG/ ★ D15 71965 D/40 ★ DE 3010-208
Sea water desalination - by heat exchanger joined to solar heat collector

SIEGMUND G 17.03.80-DE-010208

(24.09.81) C02f-01/14

17.03.80 as 010208 (39AT)

The desalination of seawater is effected by distillation through a mat or woven tissue to which seawater is applied and from which brine with a higher salt content is extracted after some has been evapd. The water vapour is condensed and used for consumption.

The mat is heated by a heat exchanger which is traversed by a circulating heat carrier liq., heated through a solar heat collector. Before the seawater reaches the mat, it is passed

through the condenser for the water vapours from the mat.

A casing supports a heat exchanger with an inlet and outlet to which a mat has been applied. Seawater is first passed through a condenser with an inlet and outlet and from the latter it is sprayed through nozzles in a pipe over the mat. Brine is discharged through pipe and desalinated water through the pipe.

This is a simple and lightweight installation which supplies large quantities of desalinated water and requires no extraneous energy. (12pp)

DINN/★ D15 71980 D/40 ★DE 3010-351
Vertical counterflow sludge aeration - lengthens air bubble retention by impeller induced flow opposite to air jet flow

DINNENDAHL M 18.03.80-DE-010351 (00.00.80-DE-008791)

(24.09.81) C02f-03/12

18.03.80 as 010351 Add to 3008791 (39DH)

The Parent Patent described on aeration system for an activated sludge treatment in which an impeller was mounted inside an impeller tube above an air distributor which directs air jets towards the bottom of the basin.

If the direction of rotation of the impeller is such that it produces an upward water flow in the impeller tube, this creates a downward flow between basin wall (1) and tube and retains the air bubbles longer. To achieve the best effect, the cross-section of the annulus should equal that of the tube. (4pp)

NSTA- D15 25323 V/14 = DS 2346-659
Reverse osmosis membranes from polyethylene imine film - cross-linked with polyfunctional cpds., for de salting of water

NORTH STAR RES & DE 19.09.72-US-287592

A26 J01 (A91) (24.09.81) *DE2346-659 B01d-13/04 C08j-03/24 C08j-05/18 C08l-39

17.09.73 as 346659 (068HM)

Reverse osmosis membrane is made by crosslinking a polyethylene imine film with a polyfunctional agent with functional gps. capable of reacting with the amine gps. present in the film. The film may be obtd. from an aq. soln. of polyethylene imine concn. of 0.033-2.7 wt.% and may be supported by a polysulphone film as carrier. The crosslinking agent may be an aromatic or heterocyclic cpd. with chloride or isocyanate gps., e.g. toluene diisocyanate. The membrane may be used for desalination of water. PS (5pp)

THET- D15 40979 B/22 = DS 2860-792
Bacteriological closed loop toilet waste system - purifies waste to produce flushing liq. for recycle to toilet station

THETFORD CORP 11.11.77-US-850559

Q42 (24.09.81) *EP---2-115 C02f-09 E03d-05/*

30.10.78 as 860792 Based on EPG002115 (1358AT)

In closed loop toilet waste treatment, waste is transferred with treated filtered liq. from a subsequent stage, to a vessel for successive anaerobic and aerobic biological treatment. In aerobic treatment organic material is broken down and ammonium cpds. are nitrified to oxidised nitrogen cpds.

Aerobically treated liq. maintained rich in the nitrogen cpds. is filtered and after use as flushing liq. the cpd. are broken down during anaerobic treatment to give nitrogen gas and bicarbonates, conversion being enhanced by mechanical agitation. Air input to the aerobic state is pref. regulated to provide some evapn. of liq. so that constant levels are maintained in all stages. (10pp)

BADI D15 31930 B/17 = EP G001-436
Polyalkylene poly:amine prepn. - by prim. or sec. amine poly:amino: alkylation by reaction with aminoethyl sulphate or halide and base

BASF AG 06.10.77-DE-744982

A26 E16 H07 + P42 (A97 D22) (23.09.81) *EP---1-436 C02f-01/54 C07c-87/20 C08g-59/50 C08g-73/02 C10m-01/32

28.09.78 as 101017 (260TM) (G) FR2313415 GB1418302 E(BE CH DE FR GB NL SE)

Polyalkylenepolyamines are produced as usual by reacting in aq. soln. prim. or sec. amines HRN-CH(R)-CH₂-X with at least stoichiometric amts. of bases at 60-200 deg.C, pref. at the b. pt. The reaction mixt. is then cooled with stirring till 2 phases form. The upper phase contg. the polyalkylene polyamines is sepd. In the formula X is Cl, Br or -OSO₃H, each R can independently be H or 1-4C satd. alkyl.

The aq. solns. contain 15-45% aq. solns. of alkali(ne earth) metal hydroxides as the base, which is pref. satd. with Na₂SO₄. The reaction is pref. carried out in presence of a) esp. catalytic amts. of, alkyleneamines or b) halogenated hydrocarbons as polymerisation initiators.

The working up of the prod. is simplified while higher space/time yields than previously are obtd. The process can be carried out (dis)continuously. Very thin to very thick or solid products can be obtd. They can be used as additives to mineral oils, as

paper industry. Higher amines can be used in the paper industry as retention or dewatering agents. Other uses are e.g. as antistatics, pesticides or anticorrosives. (9pp)

STAM D15 72146 B/40 = EP G004-397
Melamine removal from waste water - by anaerobic biodegradation, using e.g. microorganisms present in the form of activated sludge

STAMICARBON BV 22.03.78-NL-003073

A41 E13 (23.09.81) *EP---4-397 C02f-03/28

07.03.79 as 200115 (974NS) (E) FR1094645 FR2302279 US3756947 E(BE DE FR GB IT NL SE)

Melamine is removed from liquids contg. it by biodegrading. Process comprises bringing an aq. soln. or suspension of melamine under aerobic conditions into contact with at least one microorganism or enzyme preparation having melaminase activity. Pref. the total concn. of nitrate and nitrile ions in the soln. or suspension is less than 10 ppm. Pref. the microorganism or enzyme preparation is in the form of an activated sludge. Pref. the soln. or suspension is brought into contact with the activated sludge in an upward flow reactor.

Process is esp. used for treating waste water. (11pp)

BADI D15 09318 C/06 = EP G008-638
Quat. ammonium cpds. of benzoin derivs. - prepd. by quaternising Mannich base, are useful as photopolymerisation initiators for olefinic cpds.

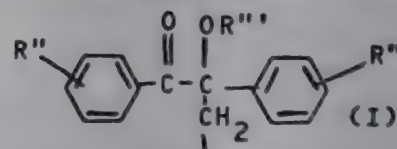
BASF AG 15.07.78-DE-831263

A89 E14 G06 (23.09.81) *DE2831-263 C07c-97/02 C07c-149/42 C07d-295/10 C08f-02/50

12.07.79 as 102400 (260TM) (G) DS1923266 US2971956 US2997479 1.Jnl.Ref E(BE CH DE FR GB NL)

Quat. cpds. ZN(+)R'2R.X(-) are pref. produced by reacting Mannich bases ZNR'2 in an aprotic solvent with alkylating agents RX. In the formulae Z is (I), where each R can be H, halogen, phenyl, R, 1-6C alkoxy or alkylthio, R' can be H, R, OH- or cycloalkyl or aralkyl, each R' can be R, phenyl, cycloalkyl or aralkyl or together form a -(CH₂)₄- or -(CH₂)₅- or -(CH₂)₂-O-(CH₂)₂- bridge, R is 1-6C alkyl, X is Cl, Br, I, SO₄CH₃ or SO₄C₂H₅.

Colourless polymers can be produced by irradiation with UV within satisfactory times at high conversion rates. The polymerisation can be terminated immediately by switching off the source of UV. The reaction temps. can vary within wide limits. Fewer electrolytes are present in the polymer than previously. The high molecular polymers dispersions obtd. are highly suitable as coating agents for paper, fleeces or leather, as paints or adhesives. The high molecular polymer solns. obtd. can be used e.g. as flocculating agents for waste water treatment. (14pp)



BUHL- D15 20432 C/12 = EP G008-725
Oxygen transfer rate measurement - for bio:reactors with valves for change to respiration activity measurement

FA BUHLER E (SEKO) 05.09.78-DE-838621

E36 S03 S05 (D16) (26.08.81) *DE2838-621 G01n-33/18

18.08.79 as 103024 (39PW) (G) FR2196294 FR2269717 US3510407 US3810738 E(AT BE CH FR GB NL SE)

The oxygen input in a reactor, which is filled with a mixed fluid, e.g. the aeration basin of a biological treatment plant or a bioreactor, is determined by measuring in turn during the operation of the reactor the oxygen content of the fluid, and the oxygen content of the fluid, and the oxygen content change of a circulating part of the fluid.

Both measurements are carried out at a constant flow incidence against an oxygen electrode at values above a minimum. The change rate is measured after the admixture of pure O₂ of H₂O₂.

This minimises the error and facilitates the measurements. (8pp)

FUNK/ D15 20621 C/12 = EP G008-810
Active sludge treatment of waste water - using biomass mounted on open pored sponge pieces in a slowly rotating drum

FUNK M 13.09.78-DE-839872

(26.08.81) *EP---8-810 C02f-03/08

13.09.79 as 103430 (39AS) (G) DE1459485 DE1584911 DE2017799 DS1184286 FR1579195 FR2354292 GB-508881 GB1281874 E(AT BE CH FR GB IT NL)

A biological treatment of sewage by the activated sludge process uses a slowly rotating (0.4-1 m/min) horizontal cylinder which is subdivided by partitions and is filled to 50-30% (50-30%) with sponges of open-celled flexible sponge or foam. The

and relieved.

The lumps have a size of 10-100 (10-30) cu.m. and a weight of unit volume of 15-30 kg/cu.m, a pore size of 0.3-3 (0.3-0.6) mm and a specific pore surface of 0.5-6 (2-4) sq.m per litre. Phosphates are eliminated by prior admixture of aluminium or iron salts. This system has a low power consumption and completes the purification after a short retention time. (11pp)

AIRL D15 38767 C/22 = EP G011-573
Treatment of sewage and septic sludge - by biological oxidn. with an oxygen-contg. gas in the presence of active sludge

AIR LIQUIDE L' (SIOD) 20.11.78-FR-032640
+ Q42 (23.09.81) *EP--11-573 C02f-03/26 C02f-11/02
14.11.79 as 400874 (448DH) (F) CH-602498 DE2105420 DE2216917 FR2205484 FR2340277 US2615842 US4094774 E(AT BE CH DE FR GB IT LU NL SE)

Process is described for the treatment of sewage sediment which has to be cleared periodically from septic tanks. The process includes chemical and biochemical oxidation of the sediment by contacting with a gas contg. at least 50 per cent oxygen for a period of not less than five hours, as well as treatment with activated sludge.

The sediment is seeded with activated sludge extracted from a biological treatment plant for waste water. The treated sediment is continuously decanted to produce an inoffensive sludge and a clear filtrate which can be fed into a conventional biological treatment plant for waste water. (10pp)

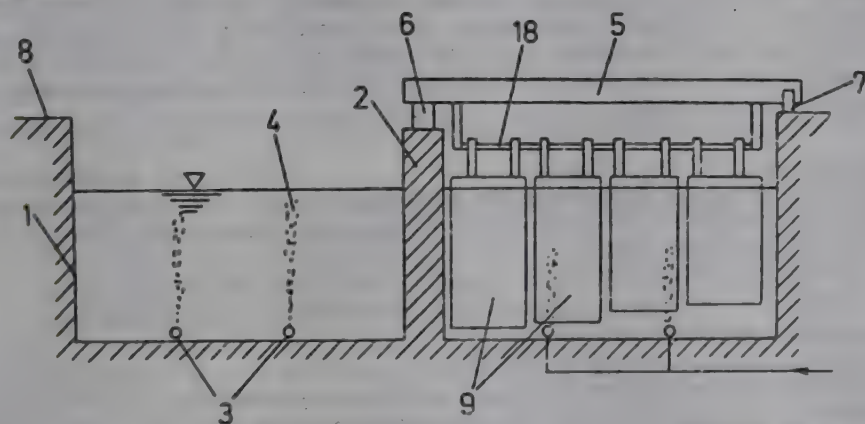
PASE ★ D15 72110 D/40 ★EP --36-182
Circulating system for aeration basin - with freely swinging aprons below revolving bridge

PASSAVANTW MICHEL BACHER 17.03.80-DE-010222
(23.09.81) C02f-03/12
12.03.81 as 101831 (39DH) (G) DE2324433 DE2349218 DE1584890 DS2703379 DE1484848 DE2717756 DE2409269 E(AT BE CH DE FR GB IT LI LU NL)

Circulating system for treatment basins, especially circular mixing and/or aeration basins, consists of a bridge which is supported in the centre and by a travelling gear at the basin rim. Several aprons are suspended from a shaft below the bridge and allow each apron to swivel around a horizontal axis.

A circular basin (1) has a central column (2) and at the bottom a system of aeration tubes (3) from which air bubbles (4) rise. A bridge (5) is supported on a swivel bearing (6) and a travelling gear (7) with a drive (not shown). The aprons (9) can swing freely on the horizontal shaft (18), parallel to the bridge.

This eliminates any overload of the mechanical and electrical parts of the equipment when starting against a stationary basin content and stopping with a revolving basin content. (20pp Dwg.No.1)



ESMI- ★ D15 72124 D/40 ★EP --36-225
Sludge scraping appts. for removing floating sludge - has knife for cutting sludge and pushing it into sludge gutter

ESMIL BV 28.02.80-NL-001198
(23.09.81) B01d-01/14 B01d-21/18 C02f-01/40
20.02.81 as 200200 (67AT) (E) No-Citns. E(AT BE DE FR GB IT SE)
Sludge scraping appts. for removing floating sludge from a liq. surface comprises a sludge stabilisation grid mounted so that the sludge protrudes upwardly through the grid and a scraping device for scraping the sludge into a sludge gutter. The scraping device has a knife which is driven in a forward movement towards the gutter and in a return movement away from the gutter.

In the forward movement the knife is tilted downwards towards its free edge to cut the sludge and push it into the gutter. During the return movement the free edge is raised above the grid.

Used for removing sludge from liqs. in flotation treatment of waste water. The knife cuts the top and driest part of the sludge and transports it in a single movement to the sludge gutter. During the return movement it is maintained out of contact with the sludge so that it does not push the sludge back through the

grid. (11pp)

VERB/ D15 53362 C/31 = EP --36-228
Grid and rake assembly for clarifying fluids - has teeth projecting through grid turned for descending journey

VERBANDT A 13.03.80-BE-882212 (13.03.80-BE-198787)
Q35 (23.09.81) *BE-882-212 + B01d-29/28 B01d-35/28
26.02.81 as 200232 (1014AS) (E) No-Citns. E(AT CH DE FR GB IT LU NL SE)

A grid consisting of mutually parallel rods be moved transversely in a stream of fluid, forms part of an installations for purifying e.g. water in a drain trench. The upper end of the grip projects out of the fluid up to a gutter of similar drain. On the rear side of the rods of the grid, is at least 1 toothed beam. The beam extends parallel to the grid and at right angles to its rods. This can be lifted by a driving mechanism over the full height of the grid and a closed circuit, with a rising and falling cadence. During the rising motion, the teeth project between the rods of the grid.

At at least 1 end of the beam, there are levers with at least 2 separate supports, one of which at least is outside the beam axis of rotation. The levers are displaced along two different guide paths which have two straight sections parallel to the grid and two curved sections which join the straight sections. At the beginning of the sinking motion, the teeth are tilted backwards into an inactive position along the sinking motion.

At the transition between the sinking and the rising motion, they are turned back into the active position in which they extend between the grid rods. During the rising motion one support moves forward into a more advanced position relatively to the others, and the condition is reversed during the downwards motion. This changeover takes place on the curved sections of the guide paths. The supports are moved constantly together in the direction in which the beam is being moved.

The swinging over of the teeth between the rising and falling motion and between the falling and rising motion place smoothly without risk of blocking and always according to a combined translating and rotating motion. (23pp)

POGC ★ D15 72147 D/40 ★EP --36-283
Mixer settler for liq.-liq. extraction - has agitator in mixing zone with baffle free space above and/or below it

DAVY MCKEE MINERALS 19.03.80-GB-009180
J01 (23.09.81) B01d-11/04

10.03.81 as 300991 (67KB) (E) No-Citns. E(BE DE FR GB IT SE)
Mixer-settler for liq.-liq. contact between an aqs. liq. medium and an organic hydrophobic liq. medium comprises a chamber for holding a body of each liq. media contg. an agitator for agitating the media in a mixing zone having free space above and/or below it which is devoid of baffles. Agitating the media produces a dispersion band contg. a dispersion of droplets of one medium dispersed within the other.

The droplets of the dispersed medium are of a size such that upon standing under gravity the dispersion disengages into a lighter medium above the band and a heavier medium below it. Disengaged lighter and/or heavier medium is recovered from the appropriate layer at the same rate as it is supplied to the mixing zone.

Used in contacting oil-contaminated water with oil to recover oil free water. Metallurgical solvent extn. (e.g. U and Cu extn.), caustic extn. of S cpds. from gasoline and antibiotic recovery in pharmaceutical processes. (22pp)

BRUH ★ D15 72163 D/40 ★EP --36-315
Highly asymmetric polymeric membrane cast from dope - comprising skin and reticulated support exhibiting improved flow rates and retention properties

BRUNSWICK CORP 14.03.80-US-130566
A88 J01 (23.09.81) B01d-13/04
13.03.81 as 301074 (966RH) (E) No-Citns. E(DE FR GB IT SE)
A highly asymmetric polymeric membrane comprises a skin and a porous support. The skin has an av. pore dia. of 0.005-3.0 microns and the support has a reticulated structure contg. pores of sizes ranging from 10-20000 x as large as the av. pore dia. of the skin pores. The membrane has a bulk porosity of above 70%. Pref. ratio of max. pore size to av. pore size within the skin is below 5.

Pref. polymer is polyarylsulphone, polyimide, polycarbonate, polyacrylonitrile, polyquinoxaline and polyquinidine.

The membranes are used as ultrafilters of microfilters and have improved flow rates and dirt holding capacities, excellent retention properties and improved resistance to fouling. (33pp)

D 15: WATER TREATMENT -p.14

ENGC ★ D15 72165 D/40 ★EP --36-318
 Tube pressure filter esp. for clay slurries - has two coaxial tubular assemblies defining annular chamber divided into compartments by elastic sleeve

ENGLISH CLAYS LOVER 18.03.80-GB-009098

J01 P71 (23.09.81) B01d-25/12 B01d-29/14 B30b-09/22

18.03.81 as 301082 (67KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

The filter comprises a pair of coaxial inner and outer tubular assemblies defining between them an annular chamber which is divided by an impermeable elastic sleeve into non-communicating inner and outer compartments. A filter element is disposed around and supported by the inner tubular assembly. A slurry to be pressure filtered is fed to the inner compartment and a hydraulic fluid is circulated through the outer compartment between an inlet and outlet.

The tubular assemblies can be moved relative to one another to establish three operating positions. In the first the slurry inlet communicates with the inner compartment but the inner compartment is otherwise closed. In the second the inner compartment is closed and is isolated from the slurry inlet so that the slurry to be pressure filtered can be dewatered. In the third the inner compartment is open so that particulate solids can be discharged from it.

Used in pressure filtering of clay slurries and waste water from paper mills.

Capable of filtering slurries contg. coarse, granular or fibrous solids at high pressures. (21pp)

DEGM ★ D15 72226 D/40 ★FR 2476-629
 Denitrification and nitrification reactors for water treatment - with at least one granular bacterial support bed

DEGREMONT SA 22.02.80-FR-003991 (16.05.79-FR-012391)

(28.08.81) C02f-03/06

22.02.80 as 003991 Add to 16.5.79-012391 (597PW)

An installation according to claim 2 of the principal patent comprising a denitrification reactor functioning anaerobically and a nitrification reactor functioning aerobically is characterised in that one and/or the other of the reactors consists of a granular filter bed on which microbial cultures are fixed through which the water to be treated is passed. The principal patent relates to the use of heterotrophic bacteria in the 1st and autotrophic bacteria in the 2nd system with recycling of water from the 2nd to the 1st system. The above replaces an active sludge basin and/or a bacterial bed.

The installation avoids the need for clarifiers. (4pp)

RENA D15 70839 A/40 = GB 1599-327
 Incinerator for industrial waste water treatment sludge - which is injected into furnace by compressed air ejector system

REGIE NATUSINES RE 09.06.77-FR-017636

Q73 (30.09.81) *BE-867-476 F23g-07

24.05.78 as 021858 (1358TM)

Appts. for treatment of industrial waste water purificn. plant sediment includes an injector transferring sediment to a static incinerator and having an elbow tube opening at the level of the surface of the sediment and the other end opening into the furnace interior.

An air inlet spray tip is sealed into the injector to project into a tube limb so that compressed air passing through the tube into the furnace creates a suction effect and draws sediment through the tube and into the furnace. The furnace is pref. fired intermittently to keep its internal temp. to 800-1200 deg.C, the air is preheated by heat recovered from the furnace and the air feed is regulated so that sediment is decomposed by heat. (3pp)

WATE- ★ D15 72307 D/40 ★GB 2072-027
 Aeration of waste water pumped downwards - at rate greater than air bubbles rise to maximise absorption

WATER RES CENTRE 28.01.81-GB-002639 (30.01.80-GB-003101)

(30.09.81) B01f-03/04 B01f-05/10

28.01.81 as 002639 (295HM)

An aq. liq. is aerated by pumping it downwards through an aerator at a velocity greater than 0.1m/s by a positive displacement pump. Small bubbles, pref. less than 3mm dia. are formed by the aerator and are then carried downwards by the moving liquid. Pref. the aerator is located in a vertical conduit greater than 3 metres which is linked at its lower end to a similar tube which receives the aerated liquid. The aerator may comprise a venturi, in which case the liquid flow should be at least 3 m/s. In other embodiments the air is supplied via a small bubble diffuser

The appts. aerates waste water. The downward liquid flow in the vertical conduit is greater than the rate at which the bubbles rise, so that the bubbles remain submerged and the aeration

SCHR- ★ D15 72333 D/40 ★GB 2072-155
 Purificn. of activated sludge waste water mixt. - by introduction of oxygen at rate controlled by measured visible depth

SCHREIBER-KLARANLAG 24.03.80-DE-011247

X25 (30.09.81) C02f-03/26

17.03.81 as 008323 (295AS)

Activated sludge waste water mixt. is purified by the introduction of gaseous molecular oxygen in an automatically controlled manner dependent upon the state of purification of the waste water. This is monitored by measuring the visible depth of the water and using this measurement to control the amount of gas introduced. Pref. a sample portion of the mixt. is removed from an activating tank. The activated sludge is separated from the sample and the visible depth of the remaining waste water is measured.

System controls the introduction of the oxygen so that excessive amounts are not introduced when the waste is relatively pure. (5pp)

TORA ★ D15 72469 D/40 ★J5 6102-907
 Feeding raw liq. for reverse osmosis liq. sepn. process - after contacting with gas at reduced pressure and opt addn. of reducing agent

TORAY IND INC 18.01.80-JP-003600

A88 J01 (17.08.81) B01d-13

18.01.80 as 003600 (55AS)

Raw liq. to be sepd. by reverse osmosis using a semi-permeable membrane which will be deteriorated by oxidn. is contacted with a gas at reduced pressure, and then a reducing agent is pref. added.

Used esp. for processes using a thin membrane partic. of a crosslinked polymer contg. furfuryl alcohol as main component. Appts. is simplified since a reduced amt. of additives such as SO2 gas etc. are required. (5pp)

KURK ★ D15 72471 D/40 ★J5 6102-910
 Scraper for removing sludge from bottom of pond - is mounted on endless chain and tensioned by lever operated ratchet wheel

KURITA WATER IND KK 21.01.80-JP-004517

Q35 Q64 (17.08.81) B01d-21/18 B65g-23/06 F16h-07/08

21.01.80 as 004517 (26BZ)

A device for scraping pptd. sludge and sand in the bottom of a pond in a water purificn. plant or dirty water treating facilities comprises an endless chain laid along the bottom of the pond. A scraper is mounted on the chain, which is movable to carrying the scraper in contact with the bottom to scrape the sludge and sand to a pit. The object is to easily hold the chain tensioned during scraping.

The novelty is that one end of a lever is pivoted to the wall of the pond. The other end is connected to a puller for pulling the lever upward. A ratched wheel is mounted rotatably on the middle of the lever, so that when the other end of the lever is lifted, the wheel is moved to tension the chain, one end of which is engaged with the wheel. (5pp)

HIEJ ★ D15 72472 D/40 ★J5 6102-911
 Sludge scraper for desedimentation tank - has detector for detecting rotation degree of the gears combined with detector for detecting end of tank

HITACHI PLANT ENG CONST 21.01.80-JP-005539

Q35 Q64 (17.08.81) B01d-21/18 B65g-43/06 F16h-07/06

21.01.80 as 005539 (26KB)

A device for scraping sludge in the bottom of a desedimentation tank in a water purificn. plant, comprises a carriage in the water to carry the sludge and draw gear for moving the carriage on the bottom, by means of a rope, one end of which is wound around a drum of the draw gear.

A detector for detecting the rotation degree of the gear is combined with a detector for detecting when one end of the carriage contacts with the end of the tank. Both detectors' outputs are connected to inputs of a comparator to detect the rope condition. (3pp)

SHIF ★ D15 72473 D/40 ★J5 6102-914
 Screening appts. for dirty water contg. suspended solids - contains cage, sprayer for air and/or water, and a rotatable cylindrical screen, used for sewage treatment

SHINMEIWA IND KK 21.01.80-JP-005982

(17.08.81) B01d-33/06

21.01.80 as 005982 (26NS)

Device comprises a water tank, cage contained in the tank to receive the raw water, sprayer for spraying air and/or water into the tank, rotatable horizontal cylindrical screen disposed in the tank, and screen cage. An openable cover is attached onto an overflow opening of the tank and is normally opened to overflow the raw water into the screen. On closing the cover, the

water is drained into the screen from the cage. (5pp)

YAMA/ ★ D15 72474 D/40 ★ J5 6102-915
Filter for dirty water comprises cylindrical filter - mounted with stirring blades and equipped with motor, enables rapid filtration without clogging

YAMAZAKI K 22.01.80-JP-005266

(17.08.81) B01d-33/16

22.01.80 as 005266 (26NS)

Device comprises an outer casing, filter tube coaxially inserted in the casing and stirring blades attached on the outer sidewall of the filter tube. The filter hole is mounted on a vertical rotary shaft passing through the centre of a housing.

A motor is connected to the shaft to rotate the shaft, i.e., the filter tube relative to the casing, while the raw dirty water is fed into the annular space defined by the filter tube and casing. (5pp)

YAMA/ ★ D15 72475 D/40 ★ J5 6102-916
Dirty water filter - comprising cylindrical outer casing, cylindrical filter tube in casing and stirring blades perforated at connection to tube outer wall

YAMAZAKI K 22.01.80-JP-005267

(17.08.81) B01f-33/16

22.01.80 as 005267 (26RH)

A device is claimed for filtering a dirty water contg. suspended solids. It comprises a cylindrical outer casing, cylindrical filter tube coaxially inserted into the casing, leaving a space between the tube and casing, for receiving the raw water, and stirring blades attached at the outer side wall of the filter tube, which is mounted on a rotary shaft extending axially in the outer casing to rotate the tube, relative to the casing. The object is to filter water, without forming any dead surface of the filter tube.

The novelty is as follows; holes are bored through each stirring blade at its connection to the outer side wall of the tube, so that the water flows over the surface of the tube through the holes. (5pp)

YAMA/ ★ D15 72476 D/40 ★ J5 6102-917
Filter for aq. effluent contg. suspended solids - has rotary shaft comprising hollow pipe and filter tube mounted eccentrically on shaft

YAMAZAKI K 22.01.80-JP-005268

(17.08.81) B01d-33/16

22.01.80 as 005268 (26AS)

Device for filtering an aq. effluent contg. suspended solids comprises an outer casing, a cylindrical filter tube coaxially inserted in the casing, and stirring blades attached at the outer side wall of the tube, which is mounted on a rotary shaft coupled with a drive motor to rotate the tube relative to the casing, while the water is fed into a space defined by the casing and tube.

Improvement is that the rotary shaft consists of a hollow pipe to form a drain pipe for draining the filtrate from the tube. The tube is mounted eccentrically on the shaft to avoid clogging. Effluent is filtered effectively without clogging. (5pp)

MITQ ★ D15 72481 D/40 ★ J5 6102-923
Water still for adsorbing water from atmos. - has heat pipe to cool bed of water absorbent after dewatering

MITSUBISHI ELECTRIC CORP 21.01.80-JP-006553

(17.08.81) B01d-53/26 C02f-01/04

21.01.80 as 006553 (26BZ)

A device is claimed for producing plain water from the water content in the atmos. esp. in a desert area. It comprises a column contg. a bed of absorbent for absorbing the water content of the atmos., heater for heating the bed until dewatering the bed, and condenser for condensing the water content from the bed. The absorbing and dewatering processes are alternately performed. The object is to improve the operation efficiency by positively cooling the bed.

The novelty is that a heat pipe is provided to cool the bed after the bed has been dewatered in the dewatering process. One end of the pipe is buried in the bed and the other end in contact with a cooler. (5pp)

MITQ ★ D15 72482 D/40 ★ J5 6102-924
Appts. for collecting fresh water from e.g. desert atmos. - in which hot section of heater is fixed to its housing through a bellows to apply a heating medium to absorbent column

MITSUBISHI ELECTRIC CORP 21.01.80-JP-006554

(17.08.81) B01d-53/26 C02f-01/04

21.01.80 as 006554 (26KB)

A device for producing fresh water from the water content of the atmos. in a dry area such as desert area, comprises a column contg. an absorbent bed for absorbing the water content in an absorbing process, heater for heating the bed until the water content is removed from the bed in a dewatering process, and

fresh water. Both processes are alternately performed. The water is obtd. without damaging the heater due to thermal stress.

Hot section of the heater, i.e. heat radiator, is fixed to its housing through a bellows to apply a heating medium to the column. (4pp)

MITQ ★ D15 72483 D/40 ★ J5 6102-925
Water producing device uses atmospheric water content as feed - and comprises absorbent, heater and condenser, which are operated alternately

MITSUBISHI ELECTRIC CORP 21.01.80-JP-006555

(17.08.81) B01d-53/26 C02f-01/04

21.01.80 as 006555 (26NS)

Device is for use in dry areas such as desert. Device comprises a column contg. a bed for absorbing the atmospheric water content, a heater for heating the bed until the water content is removed from the bed and a condenser for condensing the removed water content into liq. water. Both processes are performed alternately. The heater is located adjacent to the column, the other side of a wall. A heat pipe passes air-tightly through the wall to the column so that the heating end of the pipe is located in the column and the heat exchange end in the heater casing. Through the heater casing end a gas is circulated.

The heater is not damaged during operation. (4pp)

KOBA/ ★ D15 72485 D/40 ★ J5 6102-929
Gas liquid contacting device - which avoids floating bubble formation

KOBAYASHI J 19.01.80-JP-005087

(17.08.81) B01f-03/04 B01f-05/10 C02f-01/74 C12m-01

19.01.80 as 005087 (26WB)

Device for contacting a gas with a liq. such as dirty or waste water to be aerated in an aerator tank, comprises a column having a liq. inlet and liq. outlet at the top and bottom ends, respectively. Both the inlet and outlet are connected through a return pipe and pump. A gas feed port is provided at the top end of the column. A radially expanded section is formed at the bottom of the column and has a larger dia. nearly equal to 1.25 times the dia. of the middle section. (5pp)

SAOF ★ D15 72489 D/40 ★ J5 6102-933
Fluidised bed system for washing granular solid - has vertical pipe with lower conically expanded end and is used for counterflow movement of solids and water

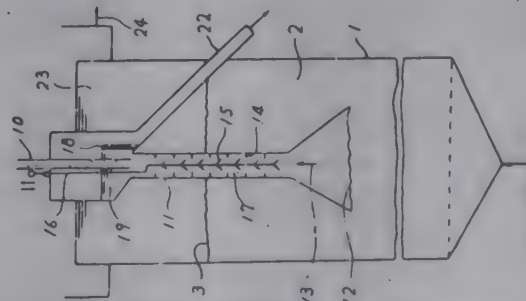
SANKI ENGINEERING KK 18.01.80-JP-003498

J04 (17.08.81) B01j-08/20 C02f-03/08

18.01.80 as 003498 (26DH)

Device and method are claimed for washing a granular solid, forming a fluidic bed in a column and to be circulated for reuse after washing, with water etc. A return pipe for returning the washed solid to the bed has a conically expanded end opening, which is inserted into the bed.

While returning the washed solid, water is sucked up through the same return pipe from the bed so that the water counterflows to the granular solid to wash it and the impurities are carried up with the water. Impurities are effectively removed from the solid. (4pp Dwg.No.2)



HARA/ ★ D15 72493 D/40 ★ J5 6102-938
Filtration material for treatment of muddy water - obtd. by mixing oyster shell particles, charcoal, green-stone particles and cement

HARA K 19.01.80-JP-004938
J01 (17.08.81) B01j-20/02 C02f-01/28

19.01.80 as 004938 (51RP)

The filtration material is shaped to a square type block of 5-10 cm size. The material is obtd. by (1) mixing 40% of divided oyster shell particles of 10-3 mm, 30% of greenstone particle of 5-2 mm, and 30% of charcoal of 10-2 mm and solidifying the resulting mixt. with cement; (2) mixing 30% of limestone of 6-2 mm, 30% of charcoal of 10-2 mm, and 40% of greenstone particle of 5-2 mm, and solidifying the resulting mixt. with cement; (3) mixing 40% of coral reef sand, 30% of charcoal of 10-2 mm, and 30% of greenstone particle of 5-2 mm, and solidifying the resulting mixt. with cement; or (4) mixing 30% of divided oyster shell particle of 10-3mm, 30% of soot coal of 5-2 mm, 20% of limestone of 6-2 mm, and 20% of greenstone particle of 5-2 mm, and solidifying the resulting mixt. with cement. (1pp)

TOYJ ★ D15 72500 D/40 ★ J5 6102-986
Clearing turbidity of aq. soln. of ammonium styrene sulphonate - by addn. of silica-alumina adsorber

TOYO SODA MFG KK 21.01.80-JP-004578

E14 (17.08.81) B01j-20/06 C02f-01/28

21.01.80 as 004578 (34BZ)

Turbidity of aq. soln. of ammonium styrene sulphonate is effectively removed by treating it with 0.1-10 wt.% SiO₂-Al₂O₃ adsorber, e.g. zeolite-type molecular sieves, diatomaceous earth, activated clays, activated Al₂O₃, SiO₂ gel and Al₂O₃ gel etc. The turbid aq. ammonium styrene sulphonate soln. is prepd. by the process described in JP78035938 or JP78035939, or an aq. soln. resulting from further diluting turbid aq. ammonium styrene sulphonate soln., prepd. by reacting alkali metal styrene sulphonate with an amine having more than 7 carbon atoms, e.g. 2-ethylhexylamine, tri-n-octylamine, ion exchange liquor having MW of 200-400 (i.e. Amberlite LA-1, LA-2) and a mineral acid, e.g. HCl and H₂SO₄, etc. in water or a solvent mixt. comprising water and organic solvent, e.g. n-heptane, n-BuOH etc. to form amine salt of styrenesulphonic acid, and reacting the sepd. amine salt with ammonia water. (4pp)

EBAI ★ D15 72501 D/40 ★ J5 6102-987
Absorption of organic matters from waste water - by electrolytic oxidn. of waste water under oxidising atmos. or addn. of oxidising agent before contacting water with absorption medium

EBARA INFILCO KK 22.01.80-JP-006045

(17.08.81) C02f-01/28

22.01.80 as 006045 (34BZ)

Organic matters are removed from liq., e.g. waste water using adsorbing medium e.g. activated charcoal, diatomaceous earth, Al₂O₃, silica gel MgO, etc. The improvement comprises in subjecting the liq. to be treated with electrolytic oxidising treatment by application of direct electric current under oxidising atmos. followed by adsorption treatment with the adsorbing medium. The biological odour generation is prevented without lowering adsorption medium. With electrolytic oxidn. alone an oxidising agent, e.g. O₂, O₃, air, esp. H₂O₂, can be used instead of oxidising atmos. The process inhibits generation of suspended solids, and removes NH₃ and H₂S, etc. (3pp)

KATA- ★ D15 72502 D/40 ★ J5 6102-997
Suppressing calcium phosphate scale formation in industrial water - by adding acrylic acid-methacrylic acid copolymer

KATAYAMA KAGAKU KOG 21.01.80-JP-005906

A97 (A14) (17.08.81) C02f-05 C23f-14

21.01.80 as 005906 (34PW)

Formation of Ca phosphate scale in industrial waters contg. polyphosphate as anti-scaling agent or anti-corrosive agent and having ortho-phosphoric acid residue content of greater than 5 ppm, (e.g. for use in boiler, heat exchanger and cooling appts. etc.) is suppressed by adding an acrylic acid-methacrylic acid copolymer of mol. wt. 500-15,000, (3,000- 7,000) and the copolymerising wt. ratio of 1/4-4/1, (1/1).

The amt. of the copolymer to be used is usually 2-20 ppm. Copolymer is usually used as aq. soln. by dissolving it in NaOH soln., Na₂CO₃ soln. or ammonia water. This copolymer is pref. applied to the water at pH less than 9. (5pp)

TEIJ ★ D15 72903 D/40 ★ J5 6105-705
Selectively permeable membrane - comprising support and film obtd. by crosslinking activated amino Gp.-contg. polymer

TEIJ K K 24.01.80-JP-006361

P41 (22.08.81) B01d-13

and resistance to chemicals, heat, and pressure comprises a porous supporting base body and a selectively permeable film supported on the base body. The film contains a super-thin film consisting of a cross-linked polymer (A). The polymer (A) is obtd. by cross-linking a polymer (B) contg. above 1.0 mm equiv./g of an activated amino gp. in carbon-amide bond, sulphone-amide bond, or urea bond. The polymer (B) is of formula (I). In (I) R₃ or R₄ is H or 1-3C alkyl. R₁ or R₂ is H, residual gp. of an amino cpd. of mol.wt. below 500 or up to 15C hydrocarbon gp. contg. O, S, or N. Gp. (Z) contains 1-2 activated H atoms and activated N (activated amino gp.) (18pp)



AGEN ★ D15 72904 D/40 ★ J5 6105-706
Ion concentrating membrane prodn. - from mixt. of PVC, plasticiser, halogenated hydrocarbon, and metal chelating agent

AGENCY OF IND SCI TECH 29.01.80-JP-009759

A88 E14 J01 (A14) (22.08.81) B01d-13

29.01.80 as 009759 (51WB)

The membrane is obtd. by mixing PVC with a plasticiser, halogenated hydrocarbon and metal chelating agent to obtain a mixt. and shaping the mixt. to a membrane type body. The plasticiser is para-nitrophenyl heptylether, orthonitrophenyl, phenylether, or para-nitrophenyl hexylether. The chelating agent is 4,7-diphenyl-1,10-phenanthroline or 1,7-diphenyl-2,9-dimethyl-1,10-phenanthroline.

In an example, 3 g PVC was dissolved in 50 ml. of THF to obtain a soln. (1) thereof. 0.225 ml. of para-nitrophenyl butylether 0.5 ml 1,5-dichloropentane, and 1 x 10 power minus 2 mol. of 4,7-diphenyl-1,10-phenanthroline were dissolved in 1,4-dichlorobutane to obtain a soln. (2) thereof. (1) and (2) were mixed on a glass plate, and dried at 20 deg.C in air to obtain an ion concentrating membrane of 0.1 mm thickness. (5pp)

SUZU/ ★ D15 72905 D/40 ★ J5 6105-708
Water or aq. soln. deaeration device - has vertical tube contg. spaced orificed horizontal plates filling the cross/section

SUZUKI M 29.01.80-JP-009558 (00.00.79-JP-132121)

(22.08.81) B01d-19

29.01.80 as 009558 Add to 132121/79 (26DH)

Device comprises a vertical tube for contg. the water or soln. Horizontal plates are arranged in the tube in stages. Each plate has small holes of about 2 mm in dia.

A gas reactive with air (sic) such as H₂, N₂, Ar, etc. is fed into the tube from its lower end and allows to flow up in contact with the contained water or soln. The plates act to increase the gas residence time in the tube. The deaerated water is drained from a lower end outlet of the tube. Effective deaeration is achieved. (3pp)

YAMA/ ★ D15 72907 D/40 ★ J5 6105-715
Filter for dirty water - using rotary blades to feed water into annular space between filter and inner case

YAMAZAKI K 24.01.80-JP-006360

P41 (22.08.81) B01d-33/16 B04b-03

24.01.80 as 006360 (26DH)

A filter tube is mounted on a rotary shaft, and inner case housed in an outer case. The filter tube is in the inner case so as to be rotated relative to it.

The novelty is that stirring blades are attached at the filter tube and are driven by a drive at a high speed until the water fed into an annular space defined by the filter and inner case is subjected to a centrifugal force, so that skum contained in the water is forced to deposit on the inner surface of the inner case. (5pp)

YAMA/ ★ D15 72908 D/40 ★ J5 6105-716
Filtering water contg. scum etc. - using appts. with filter tube mounted on rotating shaft and using intermittent feed to generate shock waves

YAMAZAKI K 24.01.80-JP-006361

P41 (22.08.81) B01d-33/16 B04b-03

24.01.80 as 006361 (26DH)

Method for filtering suspensions such as dirty water contg. skum uses a filter which comprises an outer case, inner case coaxially inserted in the outer case, and a filter tube mounted on a rotary vertical shaft coaxially passing through the inner and outer case. An annular gap is formed between the filter tube and inner case. The tube is rotated at high speed until the raw water fed into the gap is subject to resultant centrifugal force. The novelty is that the raw water is fed into the gap intermittently to result in generation of a shock wave in the gap during filtering by the filter tube's filtering medium. Clogging of the filter is avoided. (5pp)

BIRU-★ D15 72910 D/40 ★ J5 6105-718
Filter system for waste water contg. magnetic substances - includes sealed tank between poles of electromagnets

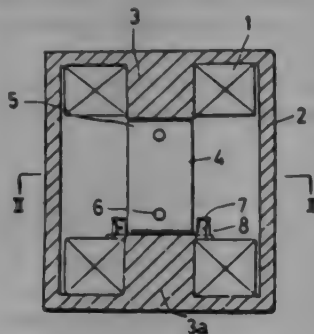
BIRU DAIKO KK 25.01.80-JP-007502

J01 (22.08.81) B01d-35/16

25.01.80 as 007502 (26DH)

Device for filtering a liquid such as waste water containing magnetic substances, comprises a closed tank and electromagnets attached at the tank. In the conventional device, the tank was back washed to remove filter residues in the tank. This required several treatments of the residues, after removing them from the filter tank.

To avoid such treatments, the tank is between the magnetic poles of the electromagnets to filter the liquid. After filtration, the tank is dumped, without removing residues. The tank may be carried on a carriage for convenience of dumping. (2pp Dwg.No.1)



BIRU-★ D15 72911 D/40 ★ J5 6105-719
Electromagnetic filter for nuclear power plant liq. waste - with disposable box between two poles associated with yoke around which a coil is wound

BIRU DAIKO KK 25.01.80-JP-007503

K07 (22.08.81) B01d-35/06

25.01.80 as 007503 (26DH)

A device is claimed for filtering a liq. wasted from a nuclear power plant. The liq. contains radioactive and magnetic substances, which must be safely dumped. The device comprises a closed box and filter element contained in the box.

The box is between a pair of large poles serving for shielding the radiation from the substances contained in the liq. fed into the box. A yoke and coil wound around the yoke is disposed near to the poles to excite them, while filtering the liq. by the element. After filtering, the box is dumped. (3pp)

MITQ ★ D15 72915 D/40 ★ J5 6105-724
Producing water from atmosphere in desert areas etc. - using device with shutters at feed and discharge openings of adsorption column

MITSUBISHI ELECTRIC CORP 28.01.80-JP-008979

(22.08.81) B01d-53/26 C02f-01/04

28.01.80 as 008979 (26DH)

Device is described for producing water from the water content of the atmos. in a dry area such as desert. It comprises an adsorbing column for adsorbing the water content with an adsorbant and condenser for condensing the desorbed water content. The object is to improve the sealing effect of the column to avoid leaking of water content at the time of desorbing. The novelty is that shutters are attached at an air feed and discharge openings of the column and combined with respective structures, each for closing the opening air-tightly. Each structure has a packing attached at the opening and a closing member closely contacted with the packing. (4pp)

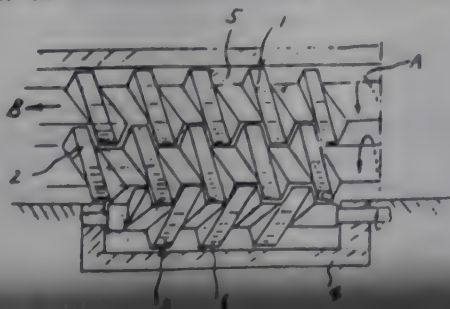
TOSI ★ D15 72925 D/40 ★ J5 6105-738
Slurry dewatering extruder - has auxiliary screw rotating in opposite direction to two main screws

TOSHIBA MACH KK 25.01.80-JP-007571

J01 (22.08.81) B01f-07/08 C02f-11/12

25.01.80 as 007571 (26DH)

The two main screws inserted into a cylinder rotatably. An auxiliary screw is juxtaposed with the two screws and housed in a closed cylinder attached at the main cylinder, so that the auxiliary screw is rotatable in the different direction from the



two main screws, and partly engaged with one or both the main screws.

The auxiliary screw is located in the upstream of compression zone formed in the main cylinder. Slurries contg. flexible substances can be processed. (6pp Dwg.No.1)

OKAY-★ D15 72930 D/40 ★ J5 6105-740
Powder e.g. dried dust and sludge granulation - by addn. of thermoplastic substance e.g. coal tar etc. and stirring at high speed

OKAYAMA-KEN KANKYO 28.01.80-JP-009220

A81 J04 (22.08.81) B01j-02/10 C02f-11

28.01.80 as 009220 (26AT)

Method is for granulating a powder e.g. dried dust and sludge which may contain harmful metal waste from factories. The powder is effectively granulated without scattering.

The novelty is that a thermoplastic substance hydrophobic to the powder with a m.pt. of 50-250 deg.C is added to the powder. The mixt. is stirred at high speed until a frictional heat is generated between the powders to melt the thermoplastic substance, so that the powder is pelletised. The thermoplastic substance is e.g. coal tar, polyester polymers, etc. For stirring the mixt., a high speed mixer may be used, operable at 3100 rpm. (4pp)

KATA-★ D15 72945 D/40 ★ J5 6105-790
Processing cooling water effluent from damped down blast furnace - involves adjusting pH to predetermined range, then adding iron salt and opt. aldehyde cpd.

KATAYAMA KAGAKU KOG(YAWA) 28.01.80-JP-008496

M24 (22.08.81) C02f-01/58 C21b-07

28.01.80 as 008496 (34DH)

Polluted cooling effluent resulted in injecting downwardly cooling water into the inside of blast furnace to cool down the contents in damping-down of blast furnace is subjected to treatment for recirculation by adjusting its pH to 6-8, pref. 7.5-8.5, and adding an iron salt e.g. FeCl₂, FeCl₃, FeSO₄ and Fe₂(SO₄)₃ etc. and if necessary an aldehyde cpd. e.g. formaldehyde, acetaldehyde or condensates thereof in a settling vessel to precipitate cyan components together with pollutants and to reuse supernatant liquor as the cooling water.

By this process, the amt. of pH-adjusting agent to be used is saved, and the amt. of the aldehyde cpd. to be used is about 1/10 times as that of conventionally used NaClO, so that the treating cost is significantly decreased.

In a modification the aldehyde cpd. is added to the cooling water to be injected into the blast furnace to convert the pollutants into water-soluble harmless cpds. The pollutant content of the cooling effluent discharged from the furnace is decreased and amt. of insoluble iron complex salt formed in the settling vessel is decreased considerably. (8pp)

MITR ★ D15 72946 D/40 ★ J5 6105-794
Removing sulphate and heavy metal ions from water - by passage through column filled with granular calcium hydroxide, calcium carbonate and opt. an inorganic binder

MITSUBISHI RAYON KK 28.01.80-JP-008629

(22.08.81) C01f-11 C02f-01/58

28.01.80 as 008629 (34DH)

Substances capable of forming a difficult by soluble salt with Ca(OH)₂, e.g. SO₄ and heavy metal ions etc. are removed from water contg. them by passing through a column packed with granular solid alkali matter comprising Ca(OH)₂, CaCO₃ and optionally a binder e.g. Al₂O₃, SiO₂, Mg(OH)₂ and CaSO₄, MgO etc. to form difficult soluble salt which is then removed by sedimentation.

The granular solid alkali matter exhibits excellent strength in H₂O and enough water solubility, and its Ca(OH)₂ content should be 20-95 wt.%. The solid alkali matter exhibits no collapse in water and exhibits almost constant dissolution rate over a long period, so that its installations and operation maintenance becomes very easy. When sediments are deposited on the surface of the solid alkali matter to such an extent that dissolution of the solid alkali matter is extremely suppressed, air or water is passed through the column to remove the sediments and to recover the dissolution rate. (4pp)

MITR ★ D15 72947 D/40 ★ J5 6105-795
Phosphate(s) and heavy metals removal from waste water - by blending with water passed through column of calcium hydroxide and carbonate and opt. further binder to form sediments

MITSUBISHI RAYON KK 28.01.80-JP-008630

(22.08.81) C01f-11 C02f-01/58

28.01.80 as 008630 (34BZ)

Inorganic deliterious substances capable of forming -nsoluble salt with Ca(OH)₂ or CaO soln., e.g. PO₃-4 and heavy metal ions etc. are removed from waste water contg. thereof. A portion of

treated water or clarified water is passed through a column packed with granular solid alkali matter comprising $\text{Ca}(\text{OH})_2$, CaCO_3 and opt. further binder e.g. Al_2O_3 , SiO_2 , MgO and CaSO_4 etc. to dissolve the solid alkali matter in the water. The solid alkali matter-dissolving soln. is blended with the waste water to be treated to form sediments which are then removed. The solid alkali matter exhibits excellent strength in water and enough water solubility. The $\text{Ca}(\text{OH})_2$ content should be 20-95 wt.%. Further solid alkali matter exhibits no collapse in water with an almost constant dissolution rate over a long period. The installations and operation maintenance become very easy. (4pp)

SAKA/★ D15 72387 D/40 ★ J5 6076-203
Cooling attachment for distn. unit - comprises thermally conductive element for accelerating distillate cooling

SAKAMOTO M 16.11.79-US-094918

J01 (23.06.81) B01d-03/42 C02f-01/04

30.04.80 as 056415 (26WB)

Attachment used in distilling a liquid such as sea water into plain water is claimed for cooling the distillate during its flow into a reservoir tank through a pipe connected to a distillate outlet of the distillation unit. A non-thermal conductive element is attached to this pipe to accelerate cooling of the distillate. (4pp)

ROHM D15 57256 U/39 = J8 1038-262
Anion exchange resin prepn - by alkylating resin prep'd by reacting polyethyleneimine with dihalohydrocarbon

ROHM & HAAS CO 06.03.72-US-232272

A26 (A91) (05.09.81) *NL7303-168 C08g-73/02 + B01j-41/12

18.12.72 as 127089 (DH)

Ion exchange resin esp. for removing strong acids from aq. systems is prep'd. by (a) condensing a polyethyleneimine with a dihalohydrocarbon in which the halogen atoms are not bonded to aromatic C atoms, and (b) reacting the formed resin with an alkylating agent in order to convert the non-tertiary amino gps. into tert. or quat. amino gps.

High anion exchange capacity and stability are achieved. (J49011789) (5pp)

DNTO D15 41197 X/22 = J8 1038-271
Purifying waste water contg. heavy metals - by passing through column contg. nitrohumic acid adsorber and active charcoal

DAINIPPON TORYO KK 17.10.74-JP-118730

J01 (05.09.81) *J51045-455 + B01j-20/24 C02f-01/28

17.10.74 as 118730 (DJ)

Waste water contg. heavy metals is passed through a column packed with granular nitrohumic acid-type adsorber and a granular activated charcoal in a vol. ratio of 95/5 to 40/60 so as to remove the heavy metals.

The nitrohumic acid-type adsorber exhibits excellent adsorbability for a wide variety of heavy metals and BOD components even in large amts. and gives a colourless treated waste liquor.

Its cost is very low and is easily regenerated. (J51045455) (5pp)

DNTO D15 42812 X/23 = J8 1038-272
Treatment of waste water contg. heavy metals - using granular nitrohumic acid-type adsorber and anion exchange resin

DAINIPPON TORYO KK 18.10.74-JP-119408

J01 (05.09.81) *J51046-751 + B01j-20/24 B01j-41 C02f-01/28

18.10.74 as 119408 (JB)

A heavy metal-contg. waste water is passed through a column packed with the granular nitrohumic acid-type adsorber and a granular basic anion-exchange resin in a vol. ratio of 100/1-100/100 to remove the heavy metals.

The heavy metals are selectively adsorbed on the granular adsorber and at the same time the BOD components such as nitrohumic acid dissolved in the treated waste water, etc., and the copptd. heavy metals are adsorbed on the granular basic anion-exchange resin, so that the waste water is colourless and its heavy metal content and BOD are greatly lowered. (J51046751) (4pp)

EBAI D15 37390 Y/21 = J8 1038-273
Heavy metal ions removal from industrial waste waters, sewage, etc. - by adsorption and ion-exchange using difficultly soluble prod. obtd. by reacting apatite mineral with phosphate liquor

EBARA INFILCO KK 14.10.75-JP-123651

(05.09.81) *J52048-259 + C02f-01/28

14.10.75 as 123651 (34HM)

Heavy metal ions are removed effectively and simply from e.g. sewage, industrial waste waters, etc. by contacting with a difficultly soluble prod. (A) prep'd. by contacting a phosphate

(A) exhibits excellent adsorbability and ion-exchangeability for the heavy metal ions. It can be regenerated by $(\text{PO}_4)_3$. (J52048259) (2pp)

YAWA D15 26218 U/19 = J8 1038-638
Purification of hcn-contg. gas - using soln. contg. polysulphides

NIPPON STEEL CORP 18.10.71-JP-082233

H09 (08.09.81) *NL7214-102 B01d-53/34 + C10k-01/12

18.10.71 as 082233 (JB)

Purificn. of a gas contg. HCN, e.g. coke oven gas or oil cracking gas, is effected by (a) contacting the gas with an alkaline absorption soln. contg. polysulphides, to remove HCN in the form of thiocyanates, (b) withdrawing a stream of the soln. to maintain the pH of the absorption soln. at more than 7.7, (c) adding to the withdrawn soln. a gas contg. over 2 moles free oxygen per mole thiocyanate in the stream, and (d) heat treating the stream at above 150 deg.C and under such a press. that the reaction mixt. is liq., so that the thiocyanates are oxidised hydrothermally.

HCN is removed efficiently from the gas and the effluent stream from the process has a low COD value, as the thiocyanates are converted into Na/ NH_4 sulphates. (J48046568) (7pp)

URAL=★ D15 73125 D/40 ★ SU-794-057
Compsn. for preventing deposition of mineral salts from aq. solns. - contg. carboxymethyl cellulose and an organic amino-phosphonate cpd., useful in water treatment

URAL FOREST TECH IN 25.05.78-SU-619402

A97 E11 (A11) (07.01.81) C09k-03

25.05.78 as 619402 (70VE)

Compsn. contg. carboxymethyl cellulose (I) is improved by using an organic aminophosphonate (II). The comps. contains (in wt.%): (I) 5-7, (II) 20-28, the balance is water. (II) is pref. nitrile trimethylphosphonate or ethylenediamine tetraphosphonate or a polycomplexon contg. 8 aminomethylphosphono-gps. having mol. wt. 1100-1300.

This method is suitable for various industrial water installations, petroleum industry, iodine prodn., etc. By this method, the effectiveness of the incrustation prevention is enhanced. The freezing temp. of the mixt. is lowered to -38 deg.C (control - 3.5 deg.C.). The consumption of chemicals is reduced. Bul. 1/7.1.81. (3pp)

ATUP=★ D15 73179 D/40 ★ SU-794-339
Solar still for distilling impure and salt water - has cold transparent screen and framework of heat pipes with condenser ends in circulating cold water, and evaporator

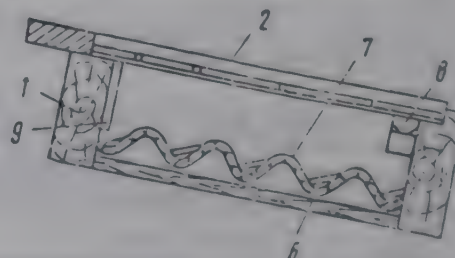
AS TURK PHYS TECH 24.05.78-SU-621066

Q74 (07.01.81) C02b-01/02 F24j-03/02

24.05.78 as 621066 (29WD)

Solar still, to make distilled water from sea-water or contaminated water, has body (1) with light-transparent screen (2) above, mounted into a framework. The condensation of vapour is intensified by additionally including a heat-exchanger connected to the body, with the framework made in the form of heat pipes, the condensers of which are immersed in the heat-exchanger.

Water enters the heat-exchanger (lower part) via a feed pipe and as it circulates it cools the condenser ends of the heat pipes in the framework to where the heat passes directly from the evaporating zone. This cools the part of the light-transparent screen (2) closest to it, and in turn becomes heated up and, through the pipe (9), moves on to the evaporating surface of the bottom (6), coated with a material (7) guaranteeing that the surface is wetted by the non-coating water. The water heated by the sun condenses on the cold framework and the screen (2), flowing down into the gully (8) and out through the pipe provided to a container. Bul. 1/7.1.81. (3pp Dwg.No.1)



VOTE=★ D15 73196 D/40 ★ SU-794-444
Photometric determ. of nitro-phenol isomers in water - by extrn. with organic solvent in presence of sodium chloride and acid, followed by ammonia treatment and photometric analysis

VORON TECH INST 20.02.79-SU-726975

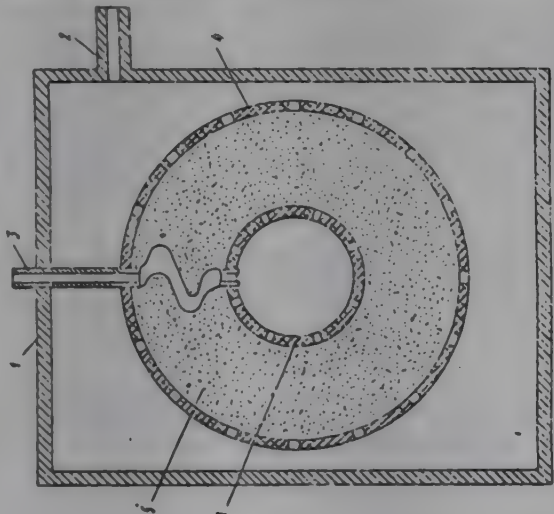
NP) in water (e.g. waste) by extg. phenols with organic solvent prior to photometric analysis increases sensitivity and selectivity by extg. in presence of 2.8-3.2 g.equiv./l of NaCl in acidic medium before treating extract or aq. layer with ammoniacal soln. prior to photometric analysis of one of the produced solns.

Typically, 10 ml. aq. soln. (contg. 500 micro.g. 2-NP and various amts. of 3-NP) are adjusted to 2.8 g.equiv./l. NaCl and pH 0.8 with HCl before shaking with an equal vol. of toluene. Practically all the 2-NP passes into the organic phase leaving 3-NP in aq. phase. 5 ml. phase are treated with 1 ml. 5% ammonia before measuring optical density at wavelength 410 nm using distd. water control sample. The original and estimated 3-NP content (%) respectively are: 25 and 25 (error 1.5); 50 and 52 (error 5); 100 and 95 (error 8). Bul. 1/7.1.81. (2pp)

ANDR/ ★ D15 73215 D/40 ★ SU-795-550
Filter for purifying liquids - has outer body contg. inner and outer spherical drainage screens between which is a granular filter charge

ANDREEV YUB 28.01.77-SU-447784
J01 (15.01.81) B01d-23/10 B01d-29/08
28.01.77 as 447784 (29WD)

Filter, for cleaning liquids, e.g. water, has body (1), drainage screen (4) filled with a filtering charge (5), pipe (2) to feed in the original liquid, and pipe (3) to extract the filtrate. The length of the filtration cycle is increased, with improvement in the quality of the filtrate, as a result of reducing the boundary effect, by making the drainage screen in form of two spheres. The filter charge is disposed inside them with the tube for taking away the filtrate (3) made as spirals. (2pp Dwg.No.1)



ITIL- D15 43808 C/25 = US 4289-423
Protective skirt for tabular iceberg - has wind-up flexible panels between floating posts and overlap section suspended below posts
ITILTD (ITII) 22.11.78-GB-045638
Q24 + Q35 Q42 (15.09.81) *GB2035-224 + E02b-01
20.11.79 as 096037 (006DB)

Protective skirt for tubular icebergs, e.g. under tow from Antarctica to arid regions as water sources, comprises a string of floating posts which carry a waterline ring of flexible panels, some of which have winding drums for adjusting panels to suit the iceberg girth.

A deepwater ring of the skirt gives only thermal protection, being below wave-troughs level, and is split vertically as panels with overlapped edges so that it can follow adjustments of the panels of the waterline ring. (8pp)

ENGH D15 62855 D/35 = US 4289-531
Recovery of precious metals from soln. - by contact with feathers, hair, hoof meal or horn meal
ENGELHARD MINERALS CORP 12.02.80-US-120801
J01 M25 (15.09.81) *GB2069-472 C22b-11/04 C22b-23 + C22b-15 C22b-19
12.02.80 as 120801 (397MR)

Removal of metals selected from one or more of Pt, Rh, Pd, Ru, Au, Ag, Ir, Zn, Al, Fe, Cu, Ni and Sn from aq. soln. by adding at least one unmodified proteinaceous material selected from feathers, hair, hoof meal and horn meal.

The material are left in contact for sufficient time for the protein to react with the metal before sepg. the metal combined with the proteinaceous material.

Pref. the materials are left in contact for at least one hour at 5-30 deg.C.

The method is esp. suitable for the recovery of Pt, Pd and Rh metals from soln. esp. industrial waste solns. (6pp)

SUNC- D15 15922 C/09 = US 4289-540
Flocculation of colloidal sludge suspensions from tar sands - by treating with starch hydrolysate prepd. in presence of metal salt
SUNCOR INC (GRCN) 02.08.78-CA-308619 (30.01.78-CA-295881)
A97 H01 J01 (15.09.81) *NL7905-919 C131-01/08
17.08.78 as 934560 (963RP)

Compsn. is claimed comprising a hydrolysed starch obtd. by aq. hydrolysis of wheat starch in presence of insoluble metal salts formed in situ and an additive (I) comprising a lower aliphatic alcohol, acetone, yeast or lactic acid. Also claimed is compsn. comprising hydrolysed wheat, corn or potato starch opt. by aq. hydrolysis in presence of insol. metal salts formed in situ.

Pref. the starch is derived from wheat and the salt contains Ca, Al and PO₄ ions. For potato starch the salt is pref. AlPO₄; in this latter case, the additive (I) may also be present. The compsn. is pref. dried to form a water-redispersible solid.

Prods. are flocculants in destabilising dilute or thick sludge suspensions. They are equal to or better than synthetic polyacrylamide flocculants, partic. when used to treat bituminous tar sands tailings when cement is added with the compsn. improved permeability and shear strength is obtd. in the resulting sludge. (8pp)

HANO- ★ D15 73516 D/40 ★ US 4289-578
Recovery of clean water and solids from aq. solids - by mixing with fluidising oil and subsequently dehydrating and sepg. mixt.
HANOVER RES CORP 14.11.79-US-094109 (01.09.76-US-719515)
(15.09.81) B01d-01/26
14.11.79 as 094109 (295AT)

Clean water and fluidising oil-free solids are recovered from water-insoluble aq. solids originally associated with a heavy non-volatile oil and dehydrated in an oil medium.

An aq. slurry of the solids are mixed with a light fluidising oil (1). The resultant mixt. is dehydrated (2) to yield a mixed water and light oil vapour and anhydrous solids in an oil slurry. The water and light oil vapour is condensed (3) and sepd. (4) into a clean water fraction and a light oil fraction. At least some of the light oil and extracted heavy oil are expressed (5) from the slurry and the resultant solids carrying light oil are slurried (6) with water. The slurry is heated (7) to provide blowing steam for removal of the light oil. The remaining solids are settled (8) under gravity and supernatant water is removed (9).

Oil from step (5) is divided (10) into a heavy and a light fraction, the light fraction being combined (11) with the sepd. light oil from step (4). These combined fractions are admixed with fresh. aq. solids and recycled as fluidising oil. (20pp)

IBMC ★ D15 73524 D/40 ★ US 4289-594
Treatment of liq. waste compsns. contg. copper and complexing agent - by redn. of copper concn., then treatment with ozone and irradiation with ultraviolet light
IBM CORP 09.05.80-US-148345
M13 (15.09.81) B01j-19/12
09.05.80 as 148345 (478RH)

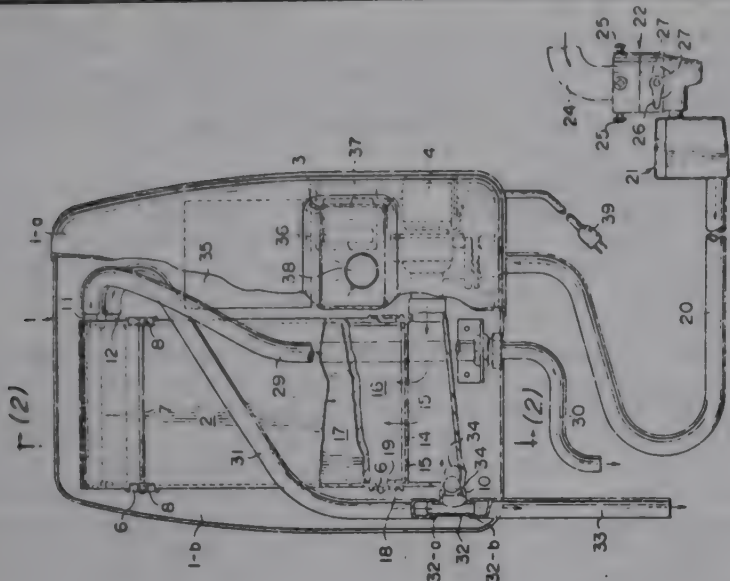
Liq. waste compsns. contg. Cu ions and an organic complexing agent (I) for the Cu ions are treated as follows: Cu ion concn. is reduced to less than 8 ppm; (b) an O₃-contg. gas is added to destroy (I); then (c) the waste compsn. is irradiated with UV light. Pref. (I) include EDTA and nitrilotriacetic acid (and hydroxy derivs. and alkali metal salts) or mixts., esp. EDTA (and salts).

Treatment effectively and rapidly reduces (I) levels in the waste compsn. to values which allow the compsns. to be treated in conventional plant waste treatment systems without causing dissolution of heavy metals. Waste compsns. are partic. effluents or overflows from Cu plating (esp. electroless Cu plating). (7pp)

KOGA- D15 42615 D/24 = US 4289-599
Electrolytic prodn. of alkaline and acidic water - using continuous water supply passed upwardly between electrodes
KOGAI BOSHI SOGO 30.11.79-JP-V65629
X25 (15.09.81) *GB2063-914 C02f-01/46 C25b-01/22 + C25b-09
10.03.80 as 128883 (1358TM)

Appts. for producing alkaline and acidic water comprises a cell with a lower chamber having water inlet (9) and outlet (10) zones and an upper chamber with spaced anode and cathode plates. The inlet is valved and the upper chamber has separate outlets for alkaline (11) and acidic (12) waters, the former being discharged from the appts. and the latter communicating with the outlet zone for discharge.

The lower chamber pref. has a downward inclination from inlet to outlet zone, the latter having an outlet ball valve. The two chambers are pref. sepd. by a perforated plate (14) and the electrodes are sepd. by a non-permeable frame. Water can be drained completely from the cell to prevent breeding of bacteria. (6pp)



HALL/ ★ D15 73540 D/40 ★ US 4289-616
Apparatus for removal of pptes. from water - by continuous filtration using moving band filter paper

HALLACK R D 19.05.80-US-150913 (25.06.77-US-777687)

J01 M14 (15.09.81) B01d-33/32

19.05.80 as 150913 C.i.p.4203836 (+ 13.7.78-US-924373) (295RP)

Suspended solids are removed from a liq. using an appts. consisting of a base supporting a pan within which is mounted a perforated plate secured to the side and end walls of the pan. There is an outlet in the bottom of the pan through which a vacuum may be applied.

A continuous support lies on the plate and forms a loop around the pan. It is guided around rollers and is connected to a drive. A liquid-absorbing medium comprising industrial paper towelling is positioned on the continuous support within the pan. A liquid contg. suspended solids is introduced onto the liquid-absorbing medium, the liquid supply being controlled by the depth of liquid in the pan. The pan outlet is connected to a liquid receiver which in turn is connected to a vacuum pump.

Used for treating waste water from electroplating or metal finishing processes. It provides quicker and more effective removal of pptes. than is possible with settling tanks. Immiscible liquids can also be sepd. (9pp)

WATE- ★ D15 73541 D/40 ★ US 4289-617
Water softening and reverse osmosis system - with semipermeable elements embedded in pelletised softening bed

WATER REFINING CO 05.05.80-US-146956

(15.09.81) B01d-57

05.05.80 as 146956 (295AT)

A water softening and reverse osmosis treatment system includes a pressure tank with an inlet line for hard water, and an outlet line for softened water. Treatment material for softening the water is located in the tank. Semi-permeable reverse osmosis membranes are embedded in the treatment material and water passing through the membranes can be separately collected.

Pref. the softened water outlet line has its mouth below the membranes adjacent the tank bottom. The treated water from the membranes is pref. passed through a conduit to a holding tank fitted with a float valve to control the flow.

The system produces softened water, and water with a reduced dissolved solids content. The treatment material traps large particles which would normally collect on the surface of the membranes and cause clogging. The system can be retrofitted to an existing water softening pressure tank. (6pp)

SAMP/ ★ D15 73542 D/40 ★ US 4289-619
Bar screen for waste water stream - having cleaning rake driven by endless chain along spaced cleaning and return strokes

SAMPSON M J 11.08.80-US-177199

(15.09.81) B01d-35/16

11.08.80 as 177199 (295NS)

Debris is collected on an inclined screen positioned in a refuse-laden stream. A reciprocating rake removes the debris from the screen. The screen is mounted at the lower end of a frame adjacent lower and upper parallel tracks. The rake slidably rides on the lower track in engagement with the screen on an upward cleaning stroke. It slidably rides down the upper track out of engagement with the screen on a return stroke. A power driven motor is mounted on the upper frame and has an endless chain with it. The

The screen and rake are used in a waterstream of sewage or industrial waste. The drive for the rake is clear of the water and therefore available for servicing and maintenance. (8pp)

IGTE ★ D15 73545 D/40 ★ US 4289-625
Hybrid bio:thermal gasification - using anaerobic digester and thermal gasifier

INST OF GAS TECHNOL 18.01.80-US-113242

H06 (15.09.81) C02f-03/28

18.01.80 as 113242 (921KB)

A hybrid bio-thermal gasification process comprises (a) anaerobically digesting a biological feed under thermophilic or mesophilic conditions in a digester (A) contg. an active liquid culture while introducing a gasification prod. (I) into the culture, (b) withdrawing (i) a prod. gas (contg. CH₄ and CO₂) and (ii) a biological residue from (A), (c) gasifying at least a substantial part of the biological residue in a thermal gasifier (B) to produce thermal gasifier prod. (II) and thermal residue (III), and (d) using at least a portion of (II) or its derivs. as (I) in (A).

Process is capable of handling a wide variety of biological feedstocks (terrestrial or aquatic plant material, organic waste, peat, etc.) of high water content (e.g. above 50%) for the efficient prodn. of urethane-contg. gases. Nutrient recycle reduces external nutrient requirements. (9pp)

STER ★ D15 73546 D/40 ★ US 4289-626
Removal of organic constituents from waste water - using a biological contactor apparatus and an adsorbent

STERLING DRUG INC 07.03.80-US-128273 (19.09.77-US-834231)

(15.09.81) C02f-01/28 C02f-03/08

07.03.80 as 128273 (+ 30.8.78-US-937963) (558NS)

A waste water stream is cocurrently treated with an adsorbent in a biological contactor apparatus having surfaces alternately immersed in the stream and air above the stream for at least 1/2 hr.; and accumulated suspended solids are removed from the apparatus at a rate equiv. to the rate at which the solids accumulate in the contactor. Alternatively, the adsorbent is added at the downstream end of the apparatus and moved by the surfaces in it in countercurrent relationship with the bulk of the liq. flow.

The use of powdered activated C as the adsorbent is pref. The amt. of adsorbent used is pref. 25-5000 mg/l.

The process gives efficient oxygen transfer and a large active biomass in the system. It can readily accomplish biological nitrification and denitrification and achieves a high organic constituents removal degree. (7pp)

F'AKH D15 25733 C/15 = US 4289-627
Three dimensional filter element esp. for sewage or sludge - has highly stable textile fabric which is resistant to the action of washing jets

HOECHST AG 15.01.79-DE-901397

A88 J01 (15.09.81) *EP---9-141 B01d-39/08

30.08.79 as 071296 (1376MR)

Filter for sepg. solids from liqs. consists of a synthetic fibrous fabric having an air permeability of more than 50 l/sq.dm. min at a pressure difference of 2 millibar. The fibres are crosse knitted, or overcast, but are not permanently bonded to each other. The filter is resistant to a permanent load over its entire area without forming free regions.

The filter is for sewage or sewage sludge. (5pp)

FARH D15 90335 C/51 = US 4289-628
Solids liquid separation - in bag filters after gas injection forms uniform percolating coating on bag inside

HOECHST AG 05.06.79-DE-922778

(15.09.81) *DE2922-778 B01d-23/04

28.05.80 as 154068 (006TM)

A gravity sepn. process for solids and liqs. mixts., esp. for wastewater purificn. is described. In the process a mixt. is injected with air before delivery into a filter bag so that air bubbles coalesce to solid particles and float them to the surface of a liq. column in the bag.

Liq. exits through the bag base and sides, and builds up filter layers along the bag interior from the bottom upwards. (3pp)

HUBE ★ D15 73547 D/40 ★ US 4289-629
Removing chloride and carbonate from strongly alkaline soaps by mixing with sodium aluminosilicate, heating and filtering

HUBER J M CORP 10.07.80-US-168833

E37 (15.09.81) C01b 23/26

constituting at least 20 wt.% the soln.; heating the obtd. soln. to at least 90 deg.C.; and filtering the obtd. sodalite type prod. from the soln.

Contaminants can be removed from solns. contg. at least 6% Na₂O, e.g. from Na hydroxide aluminate, or silicate solns., without the wastage which occurs in conventional processes.

The Na aluminosilicate pref. constitutes about 25 wt.% the obtd. soln. Heating is suitably carried out at about 150 deg.C in a press. reactor for about 1 hr. An impeller mixer is pref. used for the first step. (12pp)

BETZ ★ D15 73557 D/40 ★ US 4289-645
Compsns. for reducing oxygen content of aq. media - contg. hydroquinone and mu-amine to increase oxygen scavenging efficiency of hydroquinone

BETZ LABS INC 14.07.80-US-168989

E16 (E14) (15.09.81) C02b-01/23 C23f-11/06

14.07.80 as 168989 (478BZ)

Compsn. for reducing the amt. of O₂ in aq. media contains hydroquinone (I) and a so-called mu-amine (II).

Compsn. contains (by wt.) up to 45% pref. 5-30% esp. 10-20% (I) and may opt. also contain water. Compsn. without water have wt. ratio (I):(II) = 1:1.3 or less. Compsns. contg. water have wt. ratio (I):(II) / 7-1:1-99, pref. 5-1:1-10 (if (I) concn. is less than 7%, any ratio (I):(II) is suitable). For water treatment total amt. of (I)-(II) compsn. added is 0.01-10,000 pref. 0.1-100 ppm (water is at pH above 7.5, pref. above 9.0). Suitable (II) include aminomethylpropanol, s-BuNH₂, triethylene tetramine, mono- and diisopropanolamine, ethylenediamine, dimethylaminopropylamine, monoethanolamine, dimethyl(iso)propanolamine, diethylaminoethanol, pref. methoxypropylamine (cpd. A) (used in wt. ratio (I):(A) = 1:1).

Compsn. does not contain the toxic N₂H₄, is stable and is readily handled. (II) increases the water-solubility of (I), and potentiates its O₂-Scavenging props. The compsn. is useful for the treatment of boiler feedwater and directly in the condensate system. (10pp)

UYSH D15 33990 C/10 = US 4289-736
Water soluble magnesium salts mfr. - by treating asbestos waste with mineral acid, with addn. of excess asbestos as filter aid

UNIV OF SHERBROOKE 18.10.78-CA-313713

E33 (15.09.81) *NL7907-522 C01f-05

31.08.79 as 071175 (963RP)

Recovery of water-soluble Mg salt from reaction mixt. also contg. silica and metal salt impurities is claimed. Process comprises reacting asbestos tailings with mineral acid using at least 5% excess tailings (for the MgO content) and filtering to recover the Mg salt to remove silica and impurities, the excess tailings facilitating filtration by forming a mat on the membrane of the filter.

Pref. excess of tailings is 5-200 wt.%. The excess tailings may be added before or after reaction. (4pp)

WHIT- ★ D15 73702 D/40 ★ WP 8102-529
Magnetic water treatment appts. with cylindrical magnet - producing axial field through which water flows to alter its apparent hardness

WHITE LIGHT IND INC 12.03.80-US-129561

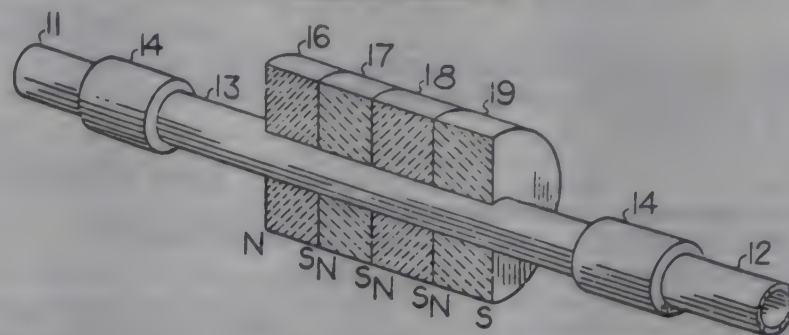
X25 (17.09.81) B01d-35/06

11.03.81 as U00304 (295AT) (E) US2652925 US4146479 US4210535 US4153559 US2939830 1.Jnl.Ref N(AU BR DE GB JP SE) E(AT)

Mineralised flowing water is treated magnetically by passage through a conduit disposed in the axial hole of a magnet. The magnet is cylindrical and is axially magnetised with an axial hole of uniform cross-section accommodating the conduit. The conduit is formed of a non-magnetic material. The magnet is shaped and positioned to maximise the magnetic flux in the axial hole.

The magnet may be either a permanent one or a direct-current coil. Pref. the conduit within the confines of the magnet is straight and smooth to minimise water turbulence.

The appts. is used to magnetically treat water to reduce boiler scale. The magnetic field is used to change the hardness characteristics of the water, generally to reduce its hardness although flow may be reversed through the magnetic field to increase the hardness. (14pp Dwg.No.1)



BOLI ★ D15 73713 D/40 ★ WP 8102-568
Heavy metals removal from acidic aq. solns. - by two-stage sulphide pptn. at low and then higher pH

BOLIDEN AB(GADD/) 05.03.80-SE-001720

E37 (17.09.81) C02f-01/62

04.03.81 as SE0060 (367AS) (E) US3421850 US2755172 DE2263047 US2726953 1.Jnl.Ref E(FI JP US)

Purificn. of acidic aq. solns. contg. heavy metals, including considerable amts. of As, Sb, Mg and/or Sn, is carried out by (a) adding sulphide ions while the soln. has a low pH, (b) raising the pH by adding a base, (c) adding more sulphide ions, and (d) removing the ppte.

Pref. the pH is less than 3.4 (esp. 1.0-2.5) in step (a) and 4.0-4.3 in step (b). The base is suitably MOH, M₂CO₃, MHCO₃, M'O, M'(OH)₂, M'CO₃, NH₃ or NH₄OH (where M is alkali metal, esp. Na or K, and M' is alkaline earth metal, esp. Ca or Mg). The sulphide ions can be added as Na₂S.

The process is capable of removing both (i) metals whose sulphides ppte. at low pH, e.g. Hg, As, Sb, Sn, Pb, Bi, Cd and Cu, and (ii) metals whose sulphides ppte. at higher pH, e.g. Fe, Zn, Ni and Co. (14pp)

NOVA- ★ D15 73714 D/40 ★ WP 8102-570
Sheet material for rotating biological contactor - formed with embossing spacing apart adjacent sheets with interlocking teeth and grooves

NORDISKA VATTENPROJ 10.03.80-WP-SE0070

(17.09.81) C02f-03/08 C12m-01/10

10.03.80 as 000070 (295KB) (E) DE2806415 SE7801463 SE-353301 DE2554757 DE2443053 CH-441140 1.Jnl.Ref N(BR JP SU US) E(AT CH DE FR GB LU NL SE)

A material for a rotating biological contactor (RBC) consists of sheets with embossings formed on them. These spaces adjacent sheet layers. At least some of the embossings are formed with protrusions which can grip into grooves formed in rows on an adjacent sheet.

Pref. the protrusions are in the form of teeth, the grooves and teeth having corresponding lengths giving lateral and longitudinal guidance and locking. There may be more grooves than teeth so that the teeth can always grip a groove even when the sheets are spirally wound and the radius and thus the distance between the embossings change.

The RBC is used in the processing of waste water. It is rotated slowly alternately exposing microorganisms to substrate and air. (8pp)

See Also

D22 DD149302

D22 EP--36055

D22 US4289581

D25 US4289815

D16: FERMENTATION INDUSTRY

ITAL- ★ D16 D/40 ★ BR 8001-360
Prodn. of alcohol from bamboo - by enzyme hydrolysis of amides and pentosane, and acid hydrolysis of cellulose

ITAL INST TECN ALIM(AGRO-) 07.03.80-BR-001360

(08.09.81) C12p-07/10

ITAL- ★ D16 D/40 ★ BR 8001-361
Prodn. of alcohol from bamboo - by enzyme hydrolysis of amides, cellulose and pentosane

ITAL INST TECN ALIM(AGRO-) 07.03.80-BR-001361

(08.09.81) C12p-07/06

ITAL- ★ D16 D/40 ★ BR 8001-362
Prodn. of alcohol from bamboo - by enzyme hydrolysis of amide from acid hydrolysis of pentosane and cellulose

ITAL INST TECN ALIM(AGRO-) 07.03.80-BR-001362

(08.09.81) C12p-07/06

TAKA- ★ D16 D/40 ★ BR 8101-155
Continuous fermenter and reactor

TAKARA SHUZO KK 08.07.80-JP-093502 (04.03.80-JP-037734)

(08.09.81) C12p-07/14

ICIL ★ D16 D/40 ★BR 8101-330
Prodn. of genetically-modified microorganism
 IMPERIAL CHEM INDS LTD 10.02.81-GB-004062 (07.03.80-GB-007849)
 (08.09.81) C12n-15

UNIX ★ D16 D/40 ★BR 8101-334
Continuous process for ethnoal prodn. with cell recycling
 UNISEARCH LTD 15.05.80-AU-003561 (05.03.80-AU-002655)
 (08.09.81) C12p-07/14

NADI ★ D16 D/40 ★BR 8101-391
Prodn. of ethanol by continuous fermentation
 NATIONAL DISTILLERS CORP. 12.03.80-US-129516
 (15.09.81) C12p-07/14

MOHR/ ★ D16 71843 D/40 ★DD -149-376
Egg liqueur prepn. from pasteurised freeze-stored egg yolk - lightly stirred after thawing to prevent grittiness in prod.
 MOHR KH 05.03.80-DD-219456
 (08.07.81) C12g-03/04

05.03.80 as 219456 (200HM)
 In egg-liqueur prepn. from pasteurised freeze-stored egg yolks, opt. with sugar addn., the thawed egg-yolk is after-treated by slowly stirring 1-10 hrs. from above 0- to 5 deg.C before liqueur prepn.

The liqueur is free from gritty components and cannot be distinguished from egg-liqueur prepd. with fresh eggs. Filter residues are very small.

In an example, egg yolk, stored at minus 18 deg.C for 6 months, was thawed completely at 0 deg.C and stirred lightly at 2 deg.C for 6 hrs. Egg liqueur was prepd. from 116 kg egg yolk, 185 kg sugar soln. contg. 65 wt.% solids and 67.19 kg of 96.5 vol.% refined spirit. The liqueur was heated at 58 deg.C, to achieve viscosity 350-400 cp at 20 deg.C, and filtered. Filter residue was 0.04 wt.% as opposed to 8 wt.% on using thawed egg-yolk without after-treatment. (7pp)

MOHR/ ★ D16 71844 D/40 ★DD -149-377
Storage-stable egg liqueur prepn. - by shearing thawed lightly stirred freeze-stored egg yolk to given viscosity before use
 MOHR KH 05.03.80-DD-219457
 (08.07.81) C12g-03/04

05.03.80 as 219457 (200HM)
 In egg-liqueur prepn. from pasteurised, freeze-stored egg yolk, opt. with added sugar, the thawed egg yolk is lightly stirred 1-10 hrs. at 0-5 deg.C. Novelty consists in subjecting the treated egg yolks to mechanical shearing forces, before mixing with the sugar soln. and alcohol, until a viscosity fall is reached to no more than 300 cp at a shear gradient of D equals 0.3/sec. at 20 deg.C.

Mechanical after-treatment can be achieved by using a colloid mill, ball mill, high-pressure homogeniser or a quick stirrer. Local overheating, causing protein denaturation, must be prevented.

A storage-stable egg-liqueur is prepd., free from unmixing even after storing for 8 months at room temp. (7pp)

SCHU/ ★ D16 72014 D/40 ★DE 3010-758
Long drink alcohol-contg. additive compsn. - contg. grain alcohol, grain extract distillate and maltol
 SCHUTZ H 20.03.80-DE-010758
 (24.09.81) A23l-02/26 C12g-03

20.03.80 as 010758 (200KB)
 Alcohol-contg. drink additives contain a grain extract distillate and maltol, i.e. a 3-OH-2-Me-4-pyrone having formula C₆H₆O₃. The additives are used in mixing long drinks, esp. fruit juices. Basic long drink flavour is enhanced without adding an alien taste.

Pref. drink additives contain wheat grain alcohol and consist of 43 vol.% wheat alcohol, 30-50 (38-40) times 10 power minus 5 wt.% maltol, 0.18-0.25 vol.% grain extract distillate, balance water to 100%. 5-15 (10)% drink additive can be added to a long drink base, e.g. a fruit juice. (4pp)

FARH D16 37249 B/20 =DS 2860-789
Isolation of cephalosporin C - after drying the culture filtrate or soln.
 HOECHST AG 29.10.77-DE-748659
 B02 (24.09.81) *DE2748-659 C07d-501/12 C12p-35/06

24.10.78 as 860789 Based on EPG001797 (-)
 Process for isolation of cephalosporin C from culture media or solns. comprises filtration and evapn. (pref. spray drying); dissolution of the residue in a solvent (opt. contg. aq.); and either formation of a deriv. of the NH₂ gp. (pref. with an acyl halide or anhydride, esp. PhCOCl or Ac₂O) followed by recovery of the free base or by direct prepn. of cephalosporin C or its salts.

followed by pptn., or are pptd. directly.

Derivs. can be converted to heavy metal (esp. Zn) salts or aromatic aliphatic diamine salts (esp. with opt. subst. 4-12C alkylendiamines such as 1,6-diaminohexene). Pref. solvents are HCONH₂, HOAc, MeCN, DMF, lower alkanols, methylcellosolve, PhOH, pyridine and Me₃PO₄. (8pp)

PFIZ D16 35178 B/18 =DS 2860-790
Poly:cyclic ether antibiotic 47224 - useful against gram positive bacteria and coccidiosis in poultry, and for improving feed utilisation in ruminants

PFIZER INC 26.10.77-US-845491
 B04 C03 (D13) (24.09.81) *US4150-152 A23k-01/17 A61k-35/66
 C07g-11 C12p-07 C12r-01/55

25.10.78 as 860790 Based on EPG001720 (974NS)

Novel polycyclic ether antibiotics have the following props when in free acid form; soluble in methanol, acetone, chloroform, methyl isobutyl ketone and ethyl acetate; insoluble in water; shrinks at 65°C; melts at 68-80°C; has an optical rotation alpha subscript D superscript 20 of +43 degrees at 1% concn. in methanol; has an ave. compsn. of 62.50%C, 8.92% H and 28.58% O by wt.; has a UV absorption max. in MeOH of 323 nm with an E subscript 1 cm superscript 1% of 150 and has a given IR spectrum.

Pref. antibiotics are prepd. by cultivating Streptomyces hygroscopicus ATCC 31337. Pref. feed utilisation of ruminants and manogestic animals is improved by oral admin. of the antibiotic (12pp)

GUNT/ ★ D16 72052 D/40 ★EP --36-065
Farmyard manure gas mfr. - in successive fermenters with downpipes feeding successive tanks at bottom
 GUNTER E 17.03.80-DE-010183
 + P11 (23.09.81) A01c-03/02 C02f-11/04 C12m-01 C12p-01 C12p-05/02

17.01.81 as 100345 (39DH) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Farmyard manure or fermentation gas is produced by feeding the raw material by a pump to the bottom of a first fermenter where it rises, as gas develops, and descends from the top through a downpipe to the bottom of the next fermenter. This is repeated several times until the sludge is collected in a sludge pit. A pipe leads from the top of each fermenter to a gasholder.

This eliminates the disturbance in the gas production of the bacteria which is caused by stirring or other quick change of the influential factors. The result is a greater gas production and a saving of the stirring mechanisms. (23pp)

ALKU ★ D16 72108 D/40 ★EP --36-175
Prodn. of fermented drinks with reduced alcohol content - made by dialysing the drinks against non sweetened fruit drink or alcohol reduced fermented drink
 AKZO GMBH 14.03.80-DE-009829 (14.03.80-DE-009828)
 (23.09.81) C12c-11 C12g-03/08

11.03.81 as 101782 (513DH) (G) EP--21247 DE2924283 US2122761 FR2333546 EP--28768 GB1177126 FR1585376 GB1079517 DS2243800 J54119096 1.Jnl.Ref E(AT BE FR GB IT NL)

In a process for the prodn. of fermented drinks such as beer, wine, champagne, etc., with a reduced alcohol content, the ready-fermented drink made by normal fermentation techniques is passed over a dialysis membrane at a press. difference of less than 0.5 bar. The dialysis fluid on the other side of the membrane, contg. the extract substances, is an alcohol-free fruit drink or an already-fermented drink which has been freed from alcohol.

Pref. dialysate fluids are unsweetened fruit drinks or a liquor made by dialysis of a fermented drink. The dialysate liquor may be carbonated. Pref. the dialysate liquor is circulated and the dialysed alcohol is recovered from the dialysate liquor by vacuum distn.

Process is economical to operate and does not cause deleterious change in flavour of the drink, as with some prior art processes. The low-alcohol drinks are useful e.g. for drivers, diabetics, etc. (14pp)

CETU- ★ D16 72134 D/40 ★EP --36-259
Prodn. of predetermined protein - by growing bacteria contg. cloning vectors each having a gene for the protein
 CETUS CORP 31.12.80-US-221800 (10.03.80-US-128537)
 B04 (23.09.81) C12n-01/20 C12n-09/86 C12n-15 C12p-21 C12r-01/12

02.03.81 as 300858 (1248RP) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of a predetermined protein (I) comprises growing Gram-positive bacteria contg. cloning vectors each having a gene for (I) in a nutrient medium and then recovering the (I). The (I) is non indigenous to the bacteria.

the control of a transport mechanism by which (I) is secreted by the bacteria. The bacteria are pref. *B. subtilis*.

Cloning vector for prodn. of (I) through expression by *B. subtilis* comprises a vector capable of autonomous replication in *B. subtilis* and having a gene for (I), with other criteria as for (A). Micro-organism capable of producing (I) through expression comprises a host micro-organism and a cloning vector capable of autonomous replication in the host. The vector has a gene for (I) (which is not indigenous for the host). The gene is under the control of an operator, promoter and ribosomal binding site sequence. The (I) is under the control of a transport mechanism by which the (I) is secreted by the host micro-organism.

Prodn. of heterologous (I) through expression esp. in *B. subtilis* is improved. (30pp)

NITE-★ D16 72142 D/40 ★EP--36-274
Identifying microorganisms by impedance measurements - on media contg. carbohydrate and salt, on which they are growing
JAPAN TECTRON INSTR 08.03.80-JP-028582 (08.03.80-JP-028581)

S03 (23.09.81) G01n-27/02 G01n-33/48
05.03.81 as 300928 (1251AS) (E) No-Citns. E(DE FR GB SE)
Microorganisms are monitored by cultivating them on a medium which contains protein hydrolysate as main components and to which carbohydrates and salts have been added, and measuring the decrease or increase of impedance of the medium. Opt. the medium also contains amino acids, specifically arginine, lysine, or ornithine.

Pref. the microorganisms are identified from the rate or change of impedance; the length of time during which the impedance rises or falls, or the rate of decrease immediately before an increase occurs, by comparison with the same parameters measured for known microorganisms. Impedance changes which occur when different carbohydrates are metabolised or different amino acids are decarboxylated can also be used for identification.

Clinically-important microorganisms can be identified rapidly (in about 8 hr.) from the species-specific pattern of impedance variation. (51pp)

REGC★ D16 72144 D/40 ★EP--36-277
Prodn. of oxidatively activated liposome(s) - for coupling with antibody, esp. for delivery of encapsulated agent
UNIV OF CALIFORNIA 12.03.80-US-129654
B04 (23.09.81) A61k-09/50

06.03.81 as 300954 (367BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of activated liposomes is carried out by oxidising liposomes having an outer layer of lipid mols. with polar heads and nonpolar tails. The polar heads have oxidisable gps. which are oxidised to CHO gps. The liposome-forming lipids are pref. selected from lactosylceramide, galactocerebroside, trihexosylceramide, phosphatidylglycerol, phosphatidylinositol and gangliosides, opt. in admixture with less than 90 mole % of other lipids (esp. phosphatidylcholine or sphingomyelin). The liposomes are pref. unilamellar, but can contain cholesterol to reduce permeability.

Activation can be effected by oxidn. with periodate or Pb(OAc)₄, pref. with a soln. of NaIO₄ in a polar solvent using 1.5-6 moles NaIO₄ per mole of lipid. Proteins can be coupled to the activated liposomes by reaction in a polar solvent in the presence of Na cyanoborohydride. The protein is pref. an antibody contg. at least 20 lysyl units, esp. IgG or F(ab')₂. Loss of antigen-binding capacity should be less than 90% during coupling. Specifically claimed activated liposomes have binding sites capable of covalently binding at least 40 mcg of IgG per micromole of total lipids.

The activated liposomes can be covalently coupled with specific antibodies via the surface CHO gps. When the liposomes contain an encapsulated drug, DNA, enzyme, etc., this may improve the specificity with which the encapsulated material is delivered to a particular target site in the body. (23pp)

NMR★ D16 72187 D/40 ★EP--36-372
Partially deacylated N-acyl ganglioside(s) and glycolipid(s) - have free amine groups which may be used to couple to solid supports without loss of specific affinity
INST MERIEUX 17.03.80-FR-005891

B04 (23.09.81) A61k-35/30 A61k-39/08
07.03.81 as 400405 (395) (F) FR2403098 FR2422699 FR2403081 S4125492 EP--16702 FR2451194 DE2910509 WP8001875 5.Jnl.Ref (AT BE CH DE FR GB IT LI LU NL SE)

Partially desacylated derivs. of gangliosides or glycolipids having N-acyl groups, having specific affinity properties when they are coupled to solid supports, are characterised in that they have free amine groups which may be shown by a positive reaction in a ninhydrin test, that they are mobile in thin layer chromatography on silica gel developed with 80:32:7 chloroform-

methanol-water and in that they have the specific affinity properties of the gangliosides or glycolipids from which they are derived. The derivatives may be coupled to the solid supports, via the amine groups freed by the partial deacylation, without loss of their specific affinity properties. Specifically claimed gangliosides are GM1, GM2, GD1a, GD1b and GT1. The solid supports may be organic or mineral materials, such as opt. modified organic polymers or porous mineral bodies modified by addition of groups capable of coupling with the free amine groups.

Isolation and purification of biological macromolecules, such as hormones, viruses, interferon, bacterial toxins etc. e.g. GM1 may be used for cholera toxins and thermolabile enterotoxins secreted by *E. coli* etc; GD1a, GD1b or GT1 may be used to fox tetanus toxin, which is purified to produce an improved anti-tetanus vaccine and GM2 may be used to isolate interferon for anti-viral and anti-tumour used. The present invention allows production of active groups on the gangliosides and glycolipids so that they may be fixed to solid supports without loss of their specific affinity. (28pp)

FERN/ D16 82411 C/46 =GB 1599-044
Solar still for brine - with wind turbine powering pumps and preheating brine

FERNANDOPULLE P D 03.03.77-GB-009028
X25 Q74 (30.09.81) *US4230-531 B01d-03 + B01d-01
27.02.78 as ----- (1358TM)

Appts. producing distilled or potable water from salt water includes a solar still fed with salt water and with a condenser and condensate collector, a brine storage vessel receiving brine after evaporation and with electrical heating for the brine, a heat-exchanger for heating salt water in the still trough and also connected to receive heated brine from the storage.

A wind-powered electrical generator is connected to an electrical storage unit and the brine heater can be operated by either the generator or the unit. The arrangement permits operation of the still beyond the normal daylight period. The brine is pref. heated resistively by a pair of spaced electrodes. (6pp)

SCNE-★ D16 72272 D/40 ★GB 1599-172
Appts. for mixing two fluent materials - with flexible diaphragm deformable to control rate of supply of one material
SCOTTISH AND NEWCA 14.06.77-GB-024696
J01 Q66 (30.09.81) B01f-05 B01f-15/04 F16k-07/07
24.05.78 as 024696 (295BJ)

Two fluent materials are mixed using an apparatus which includes a duct within which is mounted an inner duct. The first material passes through the inner duct while the second material passes through the space between the two ducts. The outlet of the inner duct is arranged so that any of the first material passing through it mixes with any of the second material through the space. A deformable fluid-tight membrane is positioned within the space and is connected to a pressure control device for deforming the membrane so that the cross-sectional area of the space can be adjusted to control the flow rate of the second material.

The appts. is intended for mixing a sediment, e.g. precipitated during fermentation of a wort in a brewing process, collecting at the bottom of a tank, with clear liquid from above the sediment. (7pp)

FARH D16 53463 A/30 =GB 1599-372
Alpha-amylase inhibitor for treating diabetes and obesity - prepd. by fermentation of *Streptomyces tendae* 4158
HOECHST AG 19.01.77-DE-701890
B04 (30.09.81) *BE-863-089 A61k-35/74 C07g-07
19.01.78 as 002226 (945PW)

Novel peptidic glycoside hydrolase inhibitor is prepd. by cultivating *Streptomyces tendae* 4158 (ATCC No 31210) or its variant or mutant and isolating the inhibitor from the culture.

Specifically an alpha-amylase inhibitor is provided. It has average mol.wt. 5000-10000 and isoelectric pH 4.4.

The inhibitor can be used to reduce alimentary hyperglycaemia and hyperinsulinaemia following starch ingestion. Thus it is useful in treatment of diabetes, prediabetes and adiposity and to assist diet. Dose is 10000-300000 AIU generally given with meals. (11pp)

KYOW D16 80437 A/45 =GB 1599-384
Glycerol-oxidase, prepd. from *Aspergillus* or *Neurospora* microorganism - is an enzyme used for analysis of glycerol by oxidising it to glycerol-aldehyde and hydrogen peroxide (NL 23.10.78)

KYOWA HAKKO KOGYO C 19.04.77-JP-044146
E17 S03 S05 (30.09.81) *DE2817-087 C12n-09/04 C12q-01/25
13.04.78 as 014602 (963MR)

A glycerol oxidase (I) is claimed having the ability to oxidise

glycerol, in the presence of oxygen to form hydrogen peroxide and glyceraldehyde.

(I) is prepd. by culturing a microorganism of the genus *Aspergillus* or *Neurospora* in medium contg. C and N sources and inorganic salts. The medium pref. contains 0.1-5 g/dl of glycerol and cultivation is effected at 20-40 deg.C at an initial pH of 6-8. Pref. microorganisms are *A.japonicus* KY-45 (FERM-P.NO.3959, NRRL 11102); *A.oryzae* KY-63 (NRRL 11103); *A.parasiticus* KY-77 (NRRL 11104); *A.flavus* KY-98 (NRRL 11105); *N.crassa* KY-462 (FERM-P.NO.3960, NRRL 11106). *N.sitophila* KY-445 (NRRL 11264) or *N.tetrasperma* KY-447 (NRRL 11265).

Method for quantitative determ. of glycerol in soln. is claimed using (I) in presence of oxygen where the amt. of O₂ consumed, the amt. of H₂O₂ formed or amt. of glutaraldehyde formed is measured. (19pp)

TANA ★ D16 72344 D/40 ★ GB 2072-185
Fermentative prodn. of L-threonine - from methionine metabolism-antagonist resistant mutant of *Serratia marcescens*
TANABE SEIYAKU CO L 21.03.80-JP-036777
B05 E16 (30.09.81) C07c-101/30 C12p-13/08 C12r-01/43
20.03.81 as 008731 (476RP)

L-Threonine is prepd. by cultivating in a suitable broth or methionine metabolism-antagonist resistant mutant of *Serratia marcescens* having L-threonine productivity.

Mutants may be obtained by inducing mutation in suitable parent strains such as *S. marcescens* D-60, HNR53, AECr301 and T-570. A representative mutant to be used in the present process is *S. marcescens* Sr41-P-103 (FERM-P No.5413, ATCCN No.31809), obtained from AEG301 and resistant to ethionine. Cultivation may effected at pH 6-8 and temp. 25-37 deg.C for 2-6 days, under good conditions for supplying oxygen.

An improved method for the prepn. of L-threonine is provided, yields being better than in known similar methods. (4pp)

COUL ★ D16 72360 D/40 ★ GB 2072-218
Shelf stable sorghum beer prodn. - by interrupting fermentation by sterilisation, then adding more yeast
COUNCIL SCIE IND RES 20.03.80-ZA-001636
(30.09.81) C12c-11
19.03.81 as 108649 (955DH)

Fermentation is interrupted by sterilisation by any chemical physical method that does not cause loss of ethanol or any other unfavourable change in character. Sterilisation can be carried out by heating to about 70 deg.C or by passage through a pasteurisation unit. The beer may be stored or transported during or before the second fermentation step, which is pref. carried out in a closed vessel so the beer becomes carbonated. Pref. approx. 2x10 power 8 yeast cells per l are provided.

The shelf life is extended, and can be accurately predicted, as contamination by foreign microbes is destroyed. (4pp)

SUGI/ ★ D16 72449 D/40 ★ J5 6102-787
Human placenta superoxidedismutase prodn. - by adding sodium or potassium chloride soln. to blood-free placenta, breaking down tissue, heating, cooling and isolating
SUGIURA M 18.01.80-JP-003482
B04 (17.08.81) A61k-37/48 C12n-09
18.01.80 as 003482 (69KB)

Human placenta superoxide dismutase is produced from human placenta by adding 1.15% potassium chloride soln. or 0.9% sodium chloride soln. in an amt. of five times the amt. of the human placenta to fresh and thoroughly blood-free human placenta, breaking down thoroughly tissue of the placenta, heating supernatant liquor of the ground tissue at 60-75 deg.C, cooling heated mixt., removing ppte. from the mixt. and isolating superoxide dismutase from the supernatant liquor.

Mitochondria superoxide dismutase is produced by isolating superoxide dismutase from supernatant liquor of the mixt. by subjecting dialysed prod. of ammonium sulphate 50-90% satd. fraction to step involving ion exchanging Sephadex chromatography to isolate mitochondria superoxide dismutase. (13pp)

AMAN ★ D16 72450 D/40 ★ J5 6102-788
Betaine aldehyde dehydrogenase - used in determ. of choline esterase activity and lecithin
AMANO PHARM KK 17.01.80-JP-003090
B04 (17.08.81) C12n-09/02 C12r-01/80
17.01.80 as 003090 (69NS)

Betaine aldehyde dehydrogenase (I) may be produced by culturing (I) producing mould (II) of *penicillium* genus and extrn. of (I) from the cultured substance. (II) is e.g. pref. *Penicillium ochro-chloron* No. 79 (FERM P No. 5303), *Penicillium carnescent* IFO 7955, *Penicillium lanthanum* IFO 7995, *Penicillium*

dehydrogenises betaine aldehyde in the presence of NAD(P) to yield betaine.

In an example, *penicillium ochro-chloron* No. 80 FERM-P No. 5303 was cultured in culture medium (5 L) comprising choline hydrochloride (1%), dipotassium phosphate (0.2%), NaCl (0.1%), MgSO₄ (0.05%) and yeast extract (0.3%) at 30 deg. C for two days in aerobic conditions. The resultant mould was suspended in 10 mM phosphoric acid buffer soln. (pH 8) and ground with glass heads. Triton X-100 was added to the suspension obtd. to a final concn. of 0.2%. An extract liquor (800 ml) was obtd. by centrifugal sepgn. Extract contained 0.200 units/ml of betaine aldehyde dehydrogenase. (4pp)

SANN ★ D16 72451 D/40 ★ J5 6102-791
Enzyme-fixing tube - has porous material adhered to inner wall
SANYO CHEM IND LTD 16.01.80-JP-004013
A89 B04 J04 Q67 (17.08.81) C12m-01/40 C12n-11 F161-09
16.01.80 as 004013 (5AS)

Tube has porous substance adhered to the inside wall. Tube is used as a fixed enzyme unit in an autoanalyser. Surface area utilised for fixing enzyme per unit length of tube can be greatly increased and the length of the tube required by the autoanalyser can be shortened. Thus it can be used not only in flow-type autoanalyser and discrete-type autoanalyser, but also as the fixed enzyme unit for analysis, medical treatment, industrial use etc.

Pref. the tube is of synthetic resin, metal, glass etc. and has inner dia. 1.5-50 mm. Porous substance is pref. of synthetic resin, glass, metal, porcelain etc. has granular size 10-5000 microns, pore dia. 10-1000 angstroms and specific surface area 1-1000 sq.m/g. Porous substance is adhered using adhesive (e.g. of epoxy-, urethane-, vinyl-type etc.). (9pp)

AJIN ★ D16 72452 D/40 ★ J5 6102-792
Nuclease inhibitor mfr. - by cultivating *Brevibacterium* microorganism
AJINOMOTO KK 28.12.79-JP-171927
B04 (17.08.81) C12p-01/04 C12r-01/13
28.12.79 as 171927 (5WB)

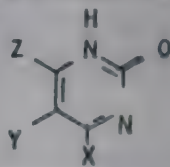
Method involves culturing the bacterial strain which belongs to *Brevibacterium* and produces nuclease inhibitor and recovering nuclease inhibitor from the culture liq. Pref. *Brevibacterium lactofermentum* ATCC 13869 is used and cultivation is at 20-40 deg. and pH 6-8 aerobically for 2-4 days.

The inhibitor specifically inhibits RNA-decomposing enzyme. The inhibitor is useful not only as a reagent for studying the action of nuclease, but also as a medicine. (4pp)

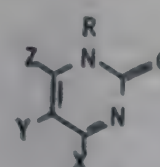
AJIN ★ D16 72453 D/40 ★ J5 6102-794
Pyrimidine-ribonucleoside and deoxyribonucleoside cpds. - having antiviral and carcinostatic activity
AJINOMOTO KK 01.05.79-JP-053718
B03 (17.08.81) C07h-19/06 C12p-19/40 C12r-01/*
01.05.79 as 053718 (69PW)

Novel pyrimidine-ribonucleosides and pyrimidine-deoxy-ribonucleosides may be produced by treating (a) ribose donor e.g. adenosine, inosine, guanosine, xanthosine, uridine, cytidine, orothidine, adenosine-5'-monophosphoric acid etc. or de-ribose donor and (b) pyrimidine base of formula (I), (where X is OH or amino; Y is H, halogen, nitro, lower alkoxy or trifluoromethyl; Z is H or carboxyl) in aq. soln. at 50-60 deg. C by action of strain having power that may transfer beta-D-ribofuranosyl gp. or beta-D-deoxyribo-furansosyl gp. on the above ribose donor or deoxyribose donor into 1-position of the pyrimidine base. The strain is of *Escherichia*, *Erwinia*, *Klebsiella*, *Bacterium*, *Enterobacter*, *Aeromonas*, *Serratia*, *Proteus*, *Xanthomonas* or *Citrobacter* and causes transferring effect of the beta-D-ribofuranosyl or beta-d-deoxyribofuranosyl gp. to yield cpd. of formula (II) (where R is beta-D-ribofuranosyl or beta-D-deoxyribofuranosyl).

Pyrimidine ribonucleosides and pyrimidin deoxynucleoside of have antiviral action and carcinostatic action. They may be produced in high yield. (8pp)



(I)



(II)

MARZ ★ D16 72454 D/40 ★ J5 6102-795
Reagent for determining the activity of enzymes - participating in the metabolism of purine bases
MARUKO SEIYAKU KK 19.01.80-JP-005082
B04 (17.08.81) C12n-09/02 C12r-01/80

phosphorylase (PNP), adenosine-aminase (ADA) or guanase (GUN) present in blood, erythrocyte hemolysate or culture soln. and consists of (1) substrate soln., (2) coupler soln., (3) enzyme soln., and (4) reaction-stopping soln.

Soln. (1) is a buffer soln. contg. 0.05-0.2 mol of substrate and sodium azide as the inhibitor for catalase and as antiseptic. Substrate is inosine for PNP, adenosine for ADA and guanine for GUN. pH 7-8 for PNP and ADA and 6-7 for GUN. Soln. (3) is a buffer soln. of pH 6-8 contg. 0.05-0.2 mol of 3-(p-iodophenyl)-2-(p-nitrophenyl)-5-phenyl-2H-tetrazolium chloride or 2,2'-di-p-nitrophenyl-5-5' diphenyl-3-3'-(3,3'-dimethoxy-4,4' diphenylene) ditetrazolium chloride and nonionic surfactant (e.g. Triton X-100) or cow serum albumin as the solubiliser for formazan. Soln. (3) is 1.5-4 mol ammonium sulphate soln. or 40-60% glycerin soln. contg. xanthine-oxidase (XOD) or XOD and PNP. Soln. (4) is an aq. 0.1-0.3 mol citric acid soln. aq. 0.1-1N HCl or 0.1-0.5 mol acetic acid soln.

A simple exact method for determin. of PNP, ADA and GUN is provided which uses XOD as the conjugating enzyme in the final stage of the reaction and measuring the colour of the formazan formed by the reaction with tetrazolium salt. It has been found that ADA-activity is increased by myelogenous leukemia and hepatitis, PNP activity is increased by lymphocytic leukemia and hepatitis and GUN-activity is increased by liver disease. (5pp)

MARU-★ D16 72455 D/40 ★ J5 6102-798
Reagent for determining pepsin activity - comprises blue dextran in casein

MARUHO KK 16.01.80-JP-004002
B04 (17.08.81) C12q-01/38 G01n-21/78
16.01.80 as 004002 (5BZ)

The reagent contains blue dextran in acid-coagulating protein as inclusion prod. Pref. acid-coagulating protein used is casein. The inclusion prod. is prepd. by (a) dissolving blue dextran 3% in 0.1M tris-buffer soln. (pH 10.7), (b) adding to (a) soln. 4.8% casein in the same buffer soln., (c) adding 1N hydrochloric acid to adjust the mixt. pH to 2.0, (d) centrifuging the mixt., (e) washing thus sepd. ppte. with citric acid-physiological salt soln. (pH 2.0) repeatedly until the top clear is free of blue colour, (e) washing the ppte. with acetone several times and (f) drying it. Thereby refined casein-blue dextran inclusion prod. can be obtd.

The inclusion prod. and excipient are mixed uniformly in equal amts. and the mixt. is moulded to 100 mg tablets. When the inclusion prod. in clot form and pepsin are put in strongly acidic soln. of pH 2.0, the included blue dextran is slowly dissolved out with the decompsn. of the protein. Thus, by measuring the colour of the soln. the activity of pepsin can be simply determined. (3pp)

AJIN ★ D16 72527 D/40 ★ J5 6103-146
Lysine deriv. and acid addn. salts - used to inhibit damage cause by infection of bacteriophage in fermentation

AJINOMOTO KK 28.12.79-JP-171928
B05 E16 P34 (18.08.81) A231-03/34 A611-02 C07c-103/48 C12n-01/20

28.12.79 as 171928 (69PW)

Lysine deriv. of formula

$X(CH_2)_5X$ (I)

(where each X is

$-CH_2-CO-NH-CH((CH_2)_4NH_2)-CO_2C_2H_5$

and its acid adduct salts are new. (I) has strong antiphage action to bacteriophage and it is useful for inhibition of damage caused by infection to bacteriophage in fermentation industry.

(I) may be used in fermentation of amino acid such as L-lysine, L-glutamic acid, or L-alanine etc.; fermentation of nucleic acid such as inosine, guanosine or inosic acid etc.; fermentation of organic acid such as citric acid or lactic acid, producing fermentation of enzyme such as amylase or protease; solvent fermentation such as acetone-butanol fermentation, antibiotic fermentation etc. (5pp)

MEIJ ★ D16 72543 D/40 ★ J5 6103-194
Antitumour substance cw-5 - obtd. by fractionation of cell walls of Bifidobacterium

MEIJI SEIKA KAISHA 23.01.80-JP-005784
B04 (18.08.81) A61k-35/74 C07g-11 C12p-21 C12r-01/*
23.01.80 as 005784 (33RH)

An anti-tumour substance CW-5 is claimed obtd. by fractionation of cell walls of Bifidobacterium.

CW-5 is a glycoprotein. Administration of CW-5 at a dose of 0.01-100 mg/kg shows inhibitory activity against tumour cells.

Prodn. of CW-5 comprises (1) removing fats from bacterial bodies obtd. by cultivation of a strain of Bifidobacterium, (2) disrupting the defatted bacterial bodies, (3) extracting the bacterial bodies in the presence of a nonionic surfactant (e.g. Triton X-100), (4) centrifuging the extract, (5) extracting the resultant ppte. with an anion surfactant (e.g. dodecyl sodium

sulphate), (6) centrifuging the extract and (7) removing protein from the resultant ppte. in conventional manner. Example of the strain is Bifidobacterium longum M101-2 (FERM-P No.5356) (5pp)

TOXN ★ D16 72544 D/40 ★ J5 6103-196
Antibiotic A-12918 - prepd. by cultivating strain of actinoplanes
TOYO JOZO KK 22.01.80-JP-006661

B04 (18.08.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/04
22.01.80 as 006661 (33PW)

Antibiotic A-12918 and its acceptable salts, having the following properties are new. (1) Elementary analysis: C 63.46%; H 6.98%; N 4.10%, (2) optical rotation: $(\alpha)_D^{20} + 34$ deg. c 0.7% (methanol), (3) given UV, IR and NMR spectra (4) m.pt. about 102 deg. C (dec.), (5) solubility: soluble in methanol, ethanol, n-butanol, chloroform, acetone, benzene and DMSO, insol. in hexane and petroleum ether; (6) colour reaction: positive to potassium permanganate, negative to ferric chloride, ninhydrin and anisaldehyde, (7) appearance: orange needles (recryst. from methanol), yellow in acidic methanol, orange in methanol, reddish purple in alkaline methanol, (5) Nature: basic.

Prodn. of the antibiotic A-12918, comprises cultivating an antibiotic A-12918-producing strain of Actinoplanes and recovering the antibiotic from the culture broth.

The cultivation is carried out in a medium comprising a carbon source, a nitrogen source and an inorganic salt at 25-35 (30) deg. C for 3-4 days. (7pp)

DNIN D16 72507 B/40 = J8 1038-112
Actinomyces mycelium prodn. - by culturing actinomyces specifically Nocardia methanophilus in medium contg. methanol as carbon source

DAINIPPON INK CHEM KK 09.02.78-JP-013002
(04.09.81) *J54107-582 + C12n-01/32 C12r-01/36
09.02.78 as 013002 (42JB)

Prodn. of mycelium (I) of Actinomyces (II), which utilises methanol (III) and belongs to Nocardia, comprises culturing (II) in a culture medium contg. (III) as C source.

(I) is a novel stock. (II) is named as Nocardia methanophilus. Pref. (II) is submerged liquid cultured. Other C sources other than (III), 0.1-0.5 wt.% of N sources, such as urea, $(NH_4)_2SO_4$, NH_3 , NH_4NO_3 etc., 0.05-0.5 wt.% of phosphates, such as K dihydrogen phosphate, dipotassium hydrogen phosphate, etc., inorganic salts, such as 0.03-0.5 wt.% of $MgSO_4$ and 5-20 mg/l of $CaCl_2$ are contained in the culture medium.

For acceleration of growth of (II), 0.01-0.05 wt.% of yeast extract or 0.05-0.1 wt.% of asparagine is added. The conc. of (III) in the culture medium should be 0.5-2.0 wt.% (II) is cultured at about 40 deg. C and pH 7.0, to obtain more than 10 g/l of (I). (J54107582) (5pp)

SUMO D16 00775 C/01 = J8 1038-113
Extraction of urokinase from human urine - by contacting with water-insoluble polysaccharide gel having functional gp. capable of supporting metal ion

SUMITOMO CHEMICAL KK 10.05.78-JP-055832
B04 (04.09.81) *J54147-993 + C12n-09/72
10.05.78 as 055832 (69BZ)

The process comprises contacting water-insoluble polysaccharide gel having functional gp. capable of holding metal ion where metal ion is supported, with soln. contg. urokinase such that the metal ion catches the urokinase, then breaking the bond between the functional gp. and metal ion.

Urokinase is useful for treating thrombus or infarction in blood system such as peripheral arterial venous thrombus or cerebral blood-vessel atresia. Urokinase is also used in combination with carcinostatic drug. Recovery of urokinase from human urine is improved. (J54147993) (5pp)

CORP D16 39458 B/21 = J8 1038-114
Glucose isomerase enzyme prepn. - by culturing a strain of Bacillus Stearothermophilus in a medium contg. xylose, starch, peptone etc.

CPC INTERNATIONAL INC 00.00.78-JP-020777 (26.10.71-US-192313)
(D17) (04.09.81) *J54017-181 + C12n-09/92 C12r-01/07
25.10.72 as 020777 /78 Div.ex. 107043/72 (15JB)

A strain of Bacillus Stearothermophilus (ATCC 21365, FRI 1652) is cultured in a culture medium which consists of a soil sample contg. by wt.% 0.5 xylose, 0.5 soluble starch, 0.5 peptone, 1.0 corn steep liquor, 0.5 meat extract, 0.25 yeast extract, 0.5 NaCl, 0.05 hepta-hydrated magnesium sulphate, 0.024 hexa-hydrated cobalt chloride and 2 agar-agar, together with 20 ml of xylose starch agar-agar having 7.0 of adjusted pH.

The culturing is performed at at least 50 deg. C and then, the produced glucose-isomerase enzyme is collected.

The glucose-isomerase enzyme is used for isomerizing glucose into fructose. (J54017181) (11pp)

AGEN D16 78350 B/43 = J8 1038-115
biodegradation of polyesteramide copolymer - using lipase or lipase-producing microorganisms

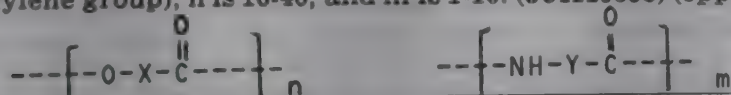
AGENCY OF IND SCI TECH 09.03.78-JP-026890

A23 (04.09.81) *J54119-593 C08g-69/44 + C12p-01

09.03.78 as 026890 (218AT)

A polyesteramide copolymer made up of low mol.wt. polyester blocks and low mol.wt. aliphatic polyamide blocks is biodegraded with lipase-producing microorganisms.

Specifically the polyesteramide copolymer has the ester block of formula (I) and amide block of formula (II). X is -R1OOCR2- or -R3- (where R1 is 2-20C alkylene, R2 is 0-12C alkylene and R3 is 1-5C alkylene), Y is -R4-NHCOR5- or -R6- (where R4 is 0-12C alkylene group, R5 is 0-12C alkylene group, and R6 is 1-12C alkylene group), n is 10-40, and m is 1-10. (J54119593) (5pp)



IZU/ D16 43994 C/25 = J8 1038-116
Insecticide Meledine mfr. - by culturing *Aspergillus* microorganism

IZUKA H 30.10.78-JP-132507

C03 (04.09.81) *J55061-795 A01n-63/04 C07g-17 C12p-01/02 C12r-01/66

30.10.78 as 132507 (1081HM)

Prepn. of insecticidal substance Meledine comprises culturing a suitable microorganism of genus *Aspergillus*, in a medium, and recovering Meledine from the culture. Meledine shows an immediate insecticidal effect at low conc., and has low toxicity.

In an example, *Aspergillus melleus* yukawa IAM 2064 was cultured at 30 deg.C for 5 days under stationary conditions. (J55061795) (5pp)

MITO D16 04481 C/03 = J8 1038-117
Methane-producing fermentation of organic waste - by adding low mol. fatty acid or alcohol to waste contg. suitable microorganisms, then adding obtd. culture to large amt. of waste

MITSUBISHI HEAVY IND KK 22.05.78-JP-059961

E17 H09 (04.09.81) *J54154-597 + C02f-11/04 C12p-05/02

22.05.78 as 059961 42BZ)

Fermentation of the waste (I) comprises (1) addn. of low molecular fatty acid (II) or low molecular alcohol (III) to (I) contg. methane-producing microorganism (IV) to promote (IV)-growth and then (2) addn. of (IV)-bred (I) to a large quantity of (I).

Fermentation of (I) for prodn. of methane can be carried out in a short period of time. The present method can be applied effectively to treatment of industrial waste, garbage and other wastes.

As (IV), those belonging to *Methanosarcina*, *Methanococcus* and *methanobacterium* are used. (II) is e.g. acetic acid, butyric acid, etc. (III) is e.g. methyl alcohol, ethyl alcohol etc. (J54154597) (3pp)

NITT D16 75565 B/42 = J8 1038-118
(Meth)acrylamide prepn. by (meth)acrylonitrile hydrolysis - in aq. medium by enzymatic catalysis using *Corynebacterium* or *Nocardia* bacteria (NL 2.10.79)

NITTO CHEM IND KK 28.04.78-JP-051236

A41 E16 (04.09.81) *DE2912-292 + C12p-13/02 C12r-01/15

28.04.78 as 051236 (200DH)

Acrylamide or methacrylamide is prepd. by hydrolysing acrylonitrile or methacrylonitrile in an aq. medium in the presence of a *Corynebacterium* or *Nocardia* species bacterium, (A), which is capable of hydrolysing acrylonitrile or methacrylonitrile at a temp. ranging from freezing point of medium to 30 (esp. to 15) deg.C, at pH 6-10.

(Meth)acrylamide concns. of at least 10 wt.% can be reached without the need for a specific purification step. (A) which have a high enzymatic nitrilase activity also at low temps. can be re-used repeatedly. (J54143592) (6pp)

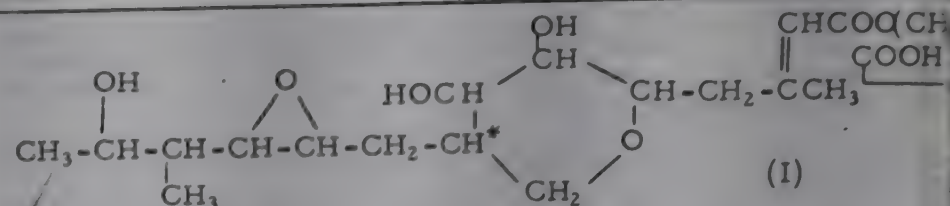
BEEC D16 02884 U/03 = J8 1038-119
Antibiotic pseudomonic acid - from *Pseudomonas fluorescens* by submerged aerobic cultivation

BEECHAM GROUP LTD 12.06.71-GB-027653

B03 (04.09.81) *DE2227-739 A61k-35/74 C07d-407/06 C12p-01/04 C12p-17/06 C12r-01/39

12.06.72 as 136216 (JB)

Cis- and trans-forms a cpds. (I), their methyl- and p-bromophenacyl- esters and mixts. of cpds. (I) and (II), their salts and esters (in cpd. (II) the H* atom is replaced by OH) are antibacterial antibiotics. Prepd. from *Pseudomonas fluorescens* by submerged aerobic cultivation and sepn. of the active from the inactive products



AJIN D16 88318 B/49 = J8 1038-120
Rapid quantitative analysis of vitamin or amino acid - effected by adding sample and solidified nutrient requiring microorganism to medium, and analysing resulting lactic acid

AJINOMOTO KK 17.04.78-JP-045015

B04 S03 S05 (04.09.81) *J54138-182 + C12q-01/02

17.04.78 as 045015 (22AS)

Process comprises adding (a) the sample to be analysed and (b) solidified nutrient-requiring microorganism to the analysing medium to allow a reaction to take place, and then analysing the resulting lactic acid. Suitable microorganisms include *Lactobacillus plantarum*, *L-casei*, *L. fermenti*, *Leuconostoc mesentroides*, *Streptomyces faecalis*, *Pediococcus cerevisiae* etc. The solidification is conducted by putting the microorganism into polymer gel such as agar gel, collagen gel, polyacrylamide etc. Amt. of microorganism to be placed into the gel is 0.1-1.0%.

Specifically the solidified microorganism and the sample to be analysed are added to the medium at 15-40 deg.C and left for 1-2 hrs. Lactic acid is produced in the medium in an amt. proportional to the content of vitamin or amino acid in the sample. (J54138182) (5pp)

AGEN D16 42355 C/24 = J8 1038-137
Microbial prepn. of 4,6-di:methyl-3,6-heptadienoic acid - by oxidising 2,4-di:methyl-1,4-nonadiene in presence of *Nocardia* microorganism, for use in paints and perfume mfr.

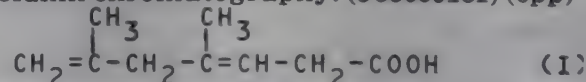
AGENCY OF IND SCI TECH 26.10.78-JP-132240

E17 G02 (04.09.81) *J55059-131 C07c-57/03 C12p-07/40 C12r-01/36

26.10.78 as 132240 (5HM)

The method is effected by oxidising 2,4-dimethyl-1,4-nonadiene (DND) with the microbe of *Nocardia* and recovering formed 4,6-dimethyl-3,6-heptadienoic acid (DHDA) (I). DHDA is a novel cpd. and can be used not only as the base of non-solvent-type high quality paint, but also as the intermediate for synthetic perfumes. Starting DND can be easily synthesised from propylene and isoprene using Ziegler catalyst and DHDA can be prepd. inexpensively.

Pref. *Nocardia* BPM 1613 (FERM-P 1609) can be used and the strain is cultured at 20-40 deg.C aerobically under slightly alkaline condition of pH 7-10 in the culture medium contg. DND. DHDA can be recovered by extracting the cultured prod. with ether, benzene, chloroform, etc. under acidic condition and treating the extract by silica gel column chromatography. Sepd. DHDA can be further refined by repeating the treatment with silica gel column chromatography. (J53059131) (6pp)



KYOW D16 79569 B/44 = J8 1038-159
Antibiotic DC-11 from *Micromonospora* sp. NRRL 11289 - useful as antibacterial and antitumour agents

KYOWA HAKKO KOGYO 20.04.78-JP-045916

B04 + P34 (04.09.81) *GB2019-388 A61k-35/74 C07g-11 C12p-01/06 C12r-01/29

20.04.78 as 045916 (1248DH)

Antibiotic DC-11 (I) is new. It has m.pt. 225-8 deg.C (dec.); it analyses for H 6.9, C 59.0 and N 2.0%, it has alpha 20D-0.52 deg.C (c. 2 in acetone); and it has characteristic i.r., u.v. and PMR and CMR spectra.

(I) is obtd. by cultivation of *Micromonospora* sp. NRRL 11289, which is a new strain isolated from a Japanese soil sample. The (I) is isolated from a fermentation medium by using ion-exchange resins. (I) has L-digitoxose and L-amicetose in its structure.

(I) is an antibacterial, useful as a therapeutic agent and sensitiser, and an antitumour agent. Dose is 0.1-0.5 mg/kg parenterally. It has LD50 of 54 mg/kg intraperitoneally in mice. (J54138501) (13pp)

TAKE D16 13402 W/03 = J8 1038-182
L-Asparaginase prodn. - by culturing *Fusarium*

TAKEDA CHEMICAL IND KK 26.01.73-JP-011327

(04.09.81) *J49094-889 + C12n-09/82 C12r-01/77

20.01.73 as 011327 (KB)

L-Asparaginase (I) is produced by a *Fusarium*. In an example, *F. oxysporum* IFO 9660 (FERM-P 1839) *F. roseum* IFO 5421 *F. solani* IFO 8488

cultured at 28 for 6 days in a medium contg. dextrin 3, soybean casein 6, KH₂PO₄ 0.5, K₂HPO₄ 0.15, and MgSO₄·7H₂O 0.05%. Prodn. of (I) were 3.46, 3.77, 2.71, 3.98, 3.09 and 2.13 units/ml. (I) was pptd. with Me₂CO from the culture filtrate, desalted with Sephadex G-25, and fractionated with DEAE-cellulose chromatography. (J49094889) (5pp)

KANE D16 54519 C/31 = J8 1038-193
Enzyme-contg. membrane prodn. - by dissolving w-33 raw material for silk in aq. solvent contg. alkaline earth or alkali metal salt and dialysing

KANEBO KK 15.12.78-JP-156011

B04 (D13 D17) (04.09.81) *J55081-589 C12n-11/04

15.12.78 as 156011 (33HM)

Enzyme-contg. membrane comprises an enzyme (0.2-20 w/w%) and fibroin (80-99.8 w/w%), the percentage of water content in the membrane being 50-400%. Prodn. comprises (i) dissolving raw material for silk in an aq. solvent contg. 5-80 w/w% alkali metal salt or alkaline earth metal salt; (ii) dialysing the soln. to give a fibroin soln.; (iii) adjusting the soln. to a concn. of 0.5-20 w/w%, (iv) adding an enzyme and a water-soluble cpd.; (v) submitting the resultant soln. to membrane formation; and (vi) washing the membrane with water.

Examples of enzymes alpha-amylase, ribonuclease, etc. Raw material for silk is e.g. cocoon, raw silk, waste silk. Alkali(ne)earth metal salt is e.g. LiCl, NaI, Mg(NO₃)₂, Zn(NO₃)₂. Water-soluble cpd. is ethylene glycol, PVA, carboxymethyl cellulose, etc. Membrane formation is effected by keeping soln. of fibroin, enzyme and water-soluble cpd. at 5-80 deg.C, pref. 10-60 deg.C, with introduction of air. Obtd. membrane has thickness 20-1000 microns, pref. 50-800 microns, esp. 100-500 microns. The percentage of water in the membrane should be 50-400%, so that good enzymatic reaction and excellent membrane strength are obtd. (J55081589) (7pp)

BAYL- D16 24041 C/14 = J8 1038-196
Determn. of gram-positive and gram-negative bacteria - by treatment with chelating agent pref. an EDTA salt and dye, both components being effective above pH 7.0

BAYLOR COLLEGE MED 27.04.79-US-033900 (25.09.78-US-945197)

B04 S03 (04.09.81) *DE2938-511 C12q-01/04

22.09.79 as 122508 (RH)

Prepn. (I) for colouring bacteria at pH greater than 7.0 contains (a) a chelate forming agent, effective at pH greater than 7.0; (b) a dye suitable for colouring bacteria at pH greater than 7.0. Process for the determn. of bacteria in fluids comprises (i) colouring the bacteria with (I), and (ii) concentrating the bacteria so that the dye associated with the bacteria is clearly visible. The intensity of the colouration of the bacteria is then opt. compared with a known standard.

Process for determining the sensitivity of bacteria towards antimicrobials comprises treating the bacteria with an antimicrobial agent and then treating the bacteria with (I) as above in steps (i) and (ii) and comparing the relative intensity of the colouration of the conc. bacteria as a measure of the relative effectiveness of the antimicrobials.

Process for the differentiation between gram negative and gram positive bacteria comprises treating the bacteria with (I) as above in step (i) and then depositing the bacteria on a semipermeable membrane, the pore size of which is sufficient to hold back the bacteria and which absorbs no significant amts. of free dye and finally washing the membrane with an organic acid of pH 2.5-2.6.

(I) allows the rapid, simple, cheap and accurate determination and analysis of bacteria in body fluids and other fluids or liq. samples. Living gram negative and gram positive bacteria are both coloured. The coloured bacteria concentrates are easily visible and can be recognised without a microscope by people not specially trained. (J55045400) (15pp)

PFIZ D16 36923 C/21 = J8 1038-197
Determn. of Minimum Inhibitory Concn. of antimicrobials - by accurate, rapid and economical measurement system

PFIZER INC 15.09.78-US-942683

B04 S03 T01 (04.09.81) *EP--10-846 C12q-01/18

4.09.79 as 118674 (RH)

Minimum inhibitory concn. (MIC) of an antimicrobial agent (I) against a sampled micro-organism is determined by first distributing a portion of the micro-organism to a growth medium in at least 2 separate chambers. A first concn. of (I) is then distributed to a first chamber and a second different concn. of (I) to a second chamber, and the growth of the micro-organism in the chambers is determined after a predetermined incubation time. This is done by measuring the numerical concns. of micro-organisms in the chambers as compared with a control without (I). These first and second values are used for determn. of MIC as follows: MIC = (first value / second value) × (second concn. of (I)). (J55058099) (41pp)

FUJI-

D16

31644 D/18 = J8 1038-198

Colorimetric determn. of micro-amts. of e.g., cholesterol in serum - By enzyme decomposition and addn. of peroxidase and bis (4-diethylamino:phenyl)-2 sulpho:phenyl:methane

FUJIZOKI SEIYAKU 10.08.79-JP-101170

B04 J04 (04.09.81) *J56026-199 C12q-01/28 G01n-33/50 + C09b-11/10

10.08.79 as 101170 (5AS)

Determn. of micro amts. of cholesterol etc. in serum, urine, etc. comprises decompn. with enzyme, adding peroxidase and leucopigment to the decomposed prod. for colour-forming and determn. by colourimetry. Bis(4-diethylaminophenyl)-2-sulphophenylmethane (I) is used as the leuco-pigment. (I) can be easily synthesised by reacting diethylaniline and o-sulphobenzaldehyde at the presence of sulphuric acid.

Cholesterol in serum is decomposed with cholesterol-oxidase forming hydrogen peroxide and is determined through the determination of formed hydrogen peroxide by colourimetry. (I) is soluble in water at pH 4-8 and is not auto-oxidised in serum. It is coloured by oxidn. and forms the colour of 10 times intensity as that attained by the quinone-imine pigment of prior art. The colour has the max. absorption at 635 nm and with it very small amts. of cholesterol, etc. in serum, etc. can be determined precisely without interference from other colouring substances in serum. (J56026199) (2pp)

BOEF

D16

05764 C/04 = J8 1038-199

Glycerol determination using glycerol dehydrogenase - in presence of zinc salt for more rapid reaction

BOEHRINGER MANNHEIM GMBH 18.07.78-DE-831580

B04 E17 S03 (S05) (04.09.81) *EP---7-058 C12q-01/32 G01n-33/50 16.07.79 as 089380 (941DH)

In a process and reagent for determining glycerol using glycerol dehydrogenase (GDH), an electron transfer agent, NAD and a tetrazolium salt, a zinc salt (pref. ZnCl₂) is added in an amt. of at least 1 microgram Zn per 50 U of GDH.

The Zn activates the GDH so that max. reaction speed is rapidly attained (e.g. after 4-5 mins.; c.f. 14 mins. without Zn). This allows analysis to be carried out more rapidly (e.g. 1/3 saving in time) and easier automation.

The process can be used for analysis of glycerol (and derivs.) in biological fluids and other samples, esp. in the determination of triglycerides (after enzymatic or alkaline hydrolysis) and also e.g. in determination of phospholipids; glycerol ethers and esters (e.g. malates and citrates used as flavouring agents and odorants); and acetin and butyrin (also used as odorants). (J55019095) (4pp)

NBUN

D16

40779 D/23 = J8 1038-200

Bile acid determn. - by sepg. bile acid by liq. chromatography, adding NAD, passing through column contg. 3-hydroxy steroid dehydrogenase

NIPPON BUNKO KOGYO KK 07.09.79-JP-115390

B04 (04.09.81) *J56039-797 C12m-01/40 C12q-01/32 07.09.79 as 115390 (5AS)

Method comprises (a) sepg. the bile acid contg. free-form bile acid, glycocholic acid and taurocholic acid into respective components through liq. chromatography, (b) combining the reacting soln. contg. nicotinamide-adenine-dinucleotide (NAD+) in the effluents contg. each bile acid components which are flowed out, (c) passing the liq. mixt. through the column contg. fixed 3-alpha-hydroxysteroid- dehydrogenase (HSD), and (d) determining the bile acid components through the determn. of thus formed reaction prod. by UV-ray absorption spectrophotometry and/or fluorometry.

Bile acid is sepd. into composite acids and they are reacted with NAD+ to form NADH. By determining formed NADH composite bile acids can be determined separately. The analysing appts. consists of the sepg. column, the reacting column, the UV-ray absorptive appts., the fluorometric appts and their accessories. Free bile acid and glycocholic acid and taurocholic acid in micro sample can be determined inexpensively, rapidly, accurately, and continuously saving expensive HSD. (J56039797) (5pp)

NEST

D16

49354 W/30 = J8 1038-583

Sepg. leucine and isoleucine from aq. soln. - by fractional crystallisation of copper or nickel salts at pH acid and alkaline

SOC PROD NESTLE SA 21.01.74-CH-000745

B05 E16 V06 P86 + P73 (08.09.81) *BE-824-243 C07c-99/12 C07c-101/04

21.01.75 as 009208 (+ 21.1.74-CH-0007457) (AS)

Leucine and isoleucine are sepd. from aq. soln. by fractional crystallisation of their Cu or Ni salts at pH alternately above and below the acidic region. Pref. the wt. ratio of leucine to isoleucine is at most 7:1 and Cu(SO₄)₂ or Ni(SO₄)₂ is added to the soln. with adjustments of the pH by addn. of H₂SO₄ or NaOH. The fractional crystallisation is pref. performed in two successive cycles of two

crystallisations each when the wt. ratio is greater than 1:1 and the pH below the acidic region is 2:3.8.

The process is efficient, giving good yields. (J50123622) (3pp)

WOBI D16 55574 Y/31 = J8 1038-909
Turbidity test for endotoxins - useful for quantitative tests with e.g. biological fluids, drugs and parental compns
WORTHINGTON BIOCHEM CORP 20.01.76-US-650607
B04 S03 S05 (09.09.81) *US4038-029 G01n-21/82 G01n-33/50
05.08.76 as 092842 (1248HM)

Endotoxin content of an aq. liq. is determined by mixing the liq. with aq. lysate of washed amebocyte cells from the blood of the horseshoe crab (the lysate is obtd. by water lysing washed amebocyte cells and is buffered at pH 6.5-6.8). The lysate is of such concn. that 1 ml. is reactive with 0.1 ml. endotoxin contg. 1 ng/ml to develop, after 60 mins. at 37 deg.C, turbidity that imparts an absorbancy between 0.07-0.2 at 360 nm. The mixt. is incubated and the absorbance is determined.

Qualitative and quantitative test suitable for screening drugs, biological fluids, water samples, parenteral preps., medical equipment etc. for pyrogens by a simple, effective and reliable method, even with low levels of endotoxins. (J52090990). (9pp)

BNEU = * D16 73135 D/40 ★SU-794-071
Dehydrogenase activity determ. - includes incubation of mixt. with addn. of menadione reductase and benzoquinone aniline deriv.

BELO NEUROLOGY NEUR 30.06.78-SU-639621
B04 S03 (22.01.81) C12d-13/10 G01n-33/48
30.06.78 as 639621 (938GW)
Determination of NADH- and NADPH-generating dehydrogenase enzymes includes incubation of test reaction mixt., contg. quinones as H acceptor and estimation of residual amt. of the acceptor. Wide range of test material can be used with continuous dehydrogenase reaction control if the reaction mixt. contains addn. of menadione reductase enzyme and aniline derivs. of orthobenzoquinone as hydrogen acceptor. The method can be used for estimation of dehydrogenase activity accurately during the course of enzymic reaction in medical diagnosis, biochemical research and technological process control (e.g. in alcoholic fermentation etc.). Bul. 1/7.1.81. (4pp)

VETE = * D16 73136 D/40 ★SU-794-072
Treatment of bacterial biomass for fodder mfr. - includes subjecting bacterial cells to sudden pressure changes for cell wall disintegration

VETERINARY EXPTL IN(AGRI=) 10.07.79-SU-794023
C03 (D13) (07.01.81) C12k-01
10.07.79 as 794023 (70VE)
The biological value of fodder bacteria is increased if biomass is subjected to pressure drop from 80-100 atmos. to the atmos. press. which results in cell wall disintegration.

Bacteria suspension contg. 5-10x10 power 9 cells per cu. cm. is subjected to destructive bursting in a press. vessel. More than 90% of the cells are disintegrated. The digestibility of the bacteria is increased from 32 to 38%. The content of the basic gps. in the proteins is increased by 50%. The wt. of animals is increased by 25% compared with the control. Bul. 1/7.1.81 (2pp)

ASBI = * D16 73137 D/40 ★SU-794-075
Preparing samples of root rhizosphere for electron-microscopic study - includes hydroponic cultivation in vessel filled with agar granules in presence of microbial cell suspension

AS USSR BIOCHEM MIC 24.07.79-SU-786401
J04 (07.01.81) C12m-01
24.07.79 as 786401 (70VE)
Samples of the rhizosphere of roots of higher plants are prepd. for the electron-microscopic examination to evaluate interaction between plant, bacteria and soil by cultivating the plants in presence of a suspension of microorganisms in vessel contg. granulated agar through which the nutrient medium is passed.

The vessel is heated and molten agar is introduced in-between the granules. Then the vessel is cooled. By this method, the spatial arrangement of the rhizosphere elements is preserved during subsequent osmium deposition and microscopy.

The cultivation of the roots is carried out by the hydroponic method in funnel like vessels filled with granulated agar. (2pp)

KURE D16 46972 Y/27 = US 4289-688
Polysaccharides bonded to proteins - from fungi of the genus *Coriolus*, have antioncogenic properties when given orally
KUREHA KAGAKU KOGYO 01.01.76-JP-000318
A97 B04 (15.09.81) *BE-850-018 A23j-01 A61k-31/71 A61k-37/02
18.05.79 as 040105 (+ 29.12.76-US-755142) (945RP)
Prepn. of protein-bound polysaccharides having antitumour effect in intraperitoneal or oral admin is claimed. Mycelia and/or

Polyporaceae is extracted with aq. solvent. The extract soln. conc. then satd. with ammonium sulphate to salt out a ppte. T. is dissolved in water.

Ammonium sulphate is added in an amt. corresp. of 25% of satn. value to form a ppte. This is sepd. then further ammonium sulphate is added in an amt. corresp. to 40% of its satn. value form a second ppte. This is dissolved in water and the soln. dialysed to remove salts, then passed through diethylaminoethyl cellulose column.

The column is washed with water then eluted with an aq. salt soln. Ammonium sulphate is added to the eluant in an amt. corresp. to 40% of its satn. value to form a third ppte. This dissolved in water; the soln. is dialysed to remove salts; then the soln. is spray dried to obtain the protein-bound polysaccharide.

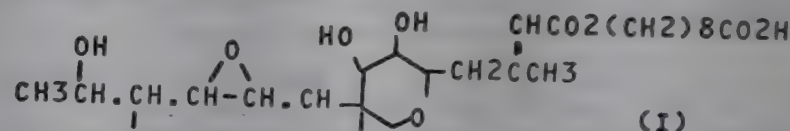
The prod. is effective against a variety of cancers. Pref. or dose for adult humans is 300-10,000 mg/day. (14pp)

BEEC D16 02884 U/03 = US 4289-7
Antibiotic pseudomonic acid - from *pseudomonas fluorescens* b submerged aerobic cultivation

BEECHAM GROUP LTD 12.06.71-GR-027653
B03 (15.09.81) *DE2227-739 C07d-306/10
12.11.76 as 741215 (+ 8.6.72, 22.2.74, 11.9.75-US- 261042, 44479 612237) (964RP)

Methyl ester of pseudomonic acid of formula (I) in pure form new. (I) is produced by growing *Pseudomonas fluorescens* under aerobic conditions or in culture medium contg. sources of assimilable C and N, until the culture medium exhibits detachable antibacterial activity. Barium ions are then added to the medium, the resulting precipitated material is removed from the medium and the prod. is extracted.

(I) is an active antibiotic material, only minor amts. of impurities are obtd. (9pp)



EYLA- D16 50105 C/29 = US 4289-74
Immunoassay method having one component bonded to lectin and sepn. of lectin contg. reaction prod. by selective attachment to insolubilised sugar

E-Y LABS INC 26.12.78-US-972696
B04 J04 S03 (S05) (15.09.81) *DE2951-678 G01n-33/48 + A61k-4, G01t-01
26.12.78 as 972696 (982TM)

The determ. of one component of an immunological conjugate in a fluid sample is described. The method comprises four steps. (a) an immunological conjugate reaction prod. is formed including the one component from a fluid sample immunologically bound to its corresp. component, a bound label cpd. and a bound lectin bound to the corresp. component; (b) the reaction prod. is contacted with insolubilised sugar selectively and reversibly reactive with the bound lectin to reversibly bind the reaction prod. through the lectin to the insolubilised sugar. (c) The bound lectin prod. is sepd.; (d) the amt. of label cpd. in the lectin prod. or the remainder is determined as a measure of the quantity of the one component in the sample.

System is capable of multiple component quantitation. The conjugate is an antibody or antigen. (12pp)

USGO D16 01983 D/02 = US 4289-748
Ultra-sensitive enzymatic radioimmunoassay method - involving reaction of enzyme-labelled antigen antibody complex with radio-labelled indicator

US GOVERNMENT (RAPI) 31.05.79-US-044260
B04 K08 S03 (S05) (15.09.81) *WP8002-747 G01n-33/48 G01n-33/54 + G01t-01
31.05.79 as 044260 (982TM)

The concn. of an immunosystem reactant is quantitatively measured by (a) preparing a solid substrate; (b) selectively adhering the immunosystem reactant to the substrate; (c) binding an enzyme-conjugated antibody to the reactant; (d) reacting a radiolabelled indicator with the enzyme-conjugated antibody to produce a radiolabelled prod. and an unlabelled prod.; (e) sepg. the radiolabelled prod.(s) from unreacted indication; and (f) measuring the extent of reaction by radioactive counting the radiolabelled prod., the counting yielding a quantitative measurement of the concn.

Method has a lower probability of radiodegradation of radiolabels, giving more accurate results and a longer shelf life. (12pp)

KERJ D16 47931 A/27 = US 4289-756
 Prodn. of cells loaded with active substance - using methods to promote accumulation in spleen and liver

KERNFORSCHUNGS JULICH 15.12.76-DE-656746
 B07 C03 K08 (15.09.81) *DE2656-746 A61k-35/14 + A61k-37/48 A61k-43

14.12.77 as 860570 (937MR)

Cells like erythrocytes, lymphocytes, thrombocytes or leucocytes are loaded with radionuclide or medicant for spleen or liver in cell compatible soln. to increase cell membrane permeability by osmotic pressure effect or effect of electrical field. The cell membrane permeability is lowered to its original level to retain the radionuclide or medicant using proteins and saccharides to form hydrogen-bridge bonds or covalents with radionuclide or medicant without impairing the intended effect on spleen or liver.

The loaded cell suspension in physiological soln. is injected into animal bloodstream. The loaded cells are treated as foreign bodies which are sepd. from the blood and broken down by the body in the spleen or liver thereby liberating the radionuclide or medicant. (8pp)

BEEC D16 57349 C/33 = US 4289-850
 In vitro interferon prodn. - in medium contg. diethylamino-ethyl-dextran, a sugar and a double stranded polynucleotide as inducer
 BEECHAM GROUP LTD 16.01.79-GB-001632
 A96 B04 (15.09.81) *EP--14-050 C12p-21

10.01.80 as 110897 (974MR)

Interferon is produced by (i) contacting interferon-producing cells in vitro with an interferon-inducing medium and at least 0.1 mol./l. of a water-sol. sugar in a physiologically acceptable aq. vehicle under suitable temp. and pH conditions and (ii) recovering the prod.

The interferon-inducing medium is a non-toxic quantity of an interferon-inducing double-stranded polymucleotide or DEAE-Dextran. Pref. the sugar is at 0.2-0.5 mol per l. and is esp. glucose, galactose, sucrose, fructose, mannose or maltose. (6pp)

SANO D16 82080 A/46 = US 4289-851
 Cyclosporin D and its derivs. - prepd. from Tolypocladium inflatum, useful antiinflammatories antiarthritics

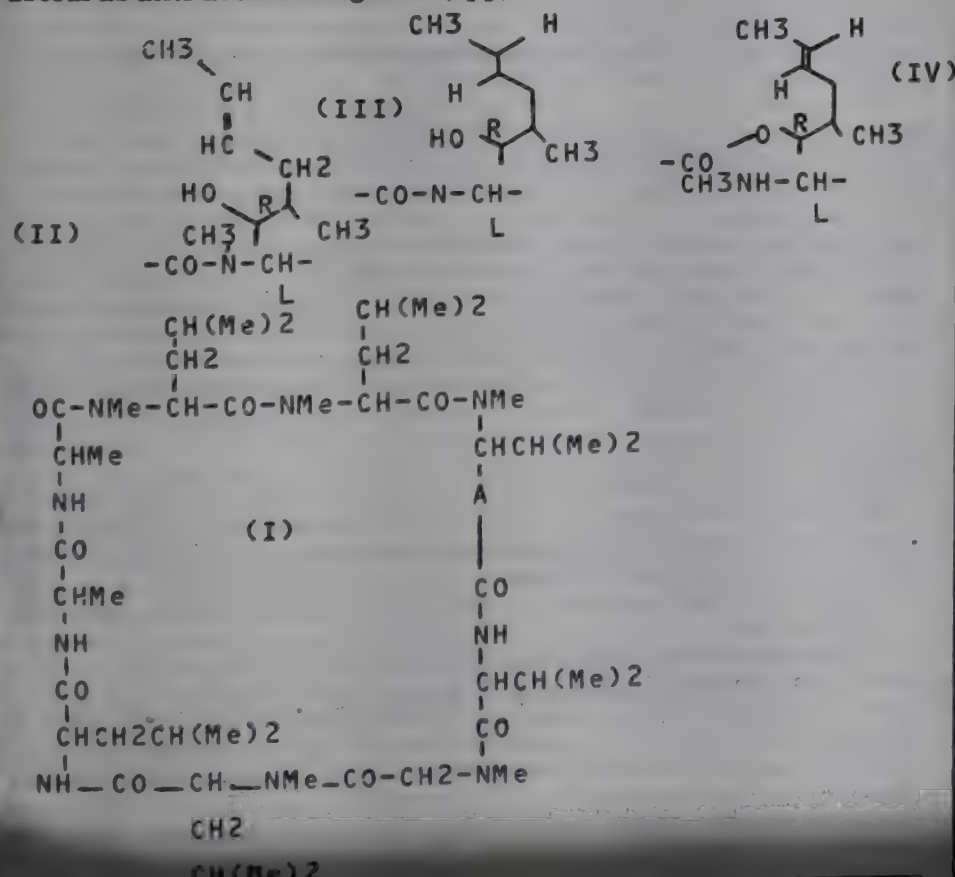
SANDOZ LTD 17.06.77-CH-007457 (10.05.77-CH-005822)

B04 (15.09.81) *BE-866-810 C12p-21/04

03.03.80 as 126215 Div.ex 4220641 (+ 4.5.78-US-902794) (+ 10.5.77-CH-005823) (924WB)

Prodn. of a cyclosporin deriv. of formula (I) comprises (a) for the prodn. of cyclosporin D (where A is gp. (II)) cultivating the species Tolypocladium inflatum Gams in the presence of a nutrient medium and isolating the prod., (b) for the prodn. of dihydrocyclosporin, hydrogenating cyclosporin D, or (c) for the prodn. of isocyclosporin D rearranging cyclosporin D under acidic conditions.

Hydrogenation may be effected by catalytic hydrogenation in a neutral medium at 20-30 deg.C. A suitable catalyst is Pd on charcoal. The acid treatment may be effected with trifluoroacetic or methanesulphonic acid. The cpds. are esp. useful as anti-arthritis agents. (4pp)



NODA D16 43129 B/23 = US 4289-851
 Spore-formation inducing factor SF-1 - used to increase productivity of antibiotics and enzymes

NODA INST SCI RES 29.09.77-JP-116139

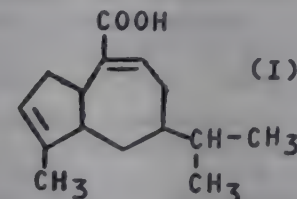
B04 (15.09.81) *J54052-795 C12p-07/24

29.11.79 as 098894 Div.ex 4250120, 4178462 (+ 26.9.78, 20.6.79-US 945831, 050226) (393TM)

Prodn. of 5-isopropyl-8-methyl bicyclo(5,3,0) deca-2, 8-diene-2-carboxylic acid of formula (I) involves inoculating the microbial strain, Sderotinia S-1 (FERM-P No.4214, ATCC 20497) into a medium contg. C and N sources, cultivating the strain and isolating (I) from the cultivated mixt. The corresp. aldehyde may be similarly prepd.

Pref. cultivation is at 20-32 deg.C and pH 6-7 for 5-10 days. Inorganic material is pref. added to the medium.

(I) markedly induce sporulation of microorganisms, esp. moulds. (-pp)



ILLI- D16 74004 B/41 = US 4289-853
 Inactivation of enzymes - by treating active carbon carrier with an organic inactivator, and displacing the inactivator with the enzyme

ILLINOIS WATER TREA 03.10.77-US-838544 (07.05.80-US-147353)

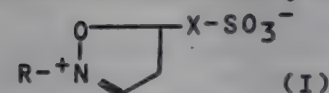
(15.09.81) *J54089-084 + C12n-11/02

07.05.80 as 147353 Div ex 4204041 (931TM)

Enzymes are immobilised on activated carbon supports by treating the carbon with a soln. of an isoxazolium salt of formula (I), to form a complex with the reactive gps. on the surface. The enzyme soln. is then treated such that the enzyme displaces the salt to form a carbon-enzyme complex, which is then sepd. from the reaction media.

In the formula, R is a lower alkyl (pref. Et), and X is a branched lower alkylene or arylene (pref. phenylene). Pref. the activated carbon substrate is oxidised before treatment with the organic immobilising agent.

Immobilised enzymes are formed, which are easily handled and stabilised against denaturation by H₂O₂. (6pp)



MONS ★ D16 73659 D/40 ★ US 4289-854
 Suspension culturing cells in flask - with rotating agitator carrying billowing sheet of flexible material

MONSANTO CO 20.06.80-US-161614

(15.09.81) C12m-03/02 C12n-05/02

20.06.80 as 161614 (295AT)

Cells are cultured on a flexible sheet which is rotated inside an open topped flask contg. a nutrient medium. A shaft extends vertically through the shaft and carries an agitator which is rotated e.g. magnetically. The agitator has spoked hubs at its upper and lower ends which support a vertical flexible sheet of material which billows in the nutrient medium during rotation of the agitator.

Typically the agitator carries several sheets of material, each of which occupies 25-100% of the available traversable cross-sectional area of the flask. Each sheet has a slight helical twist.

The appts. provides a suspension culture for fragile cells. The billowing sheets provide gentle atitation for the cells. (11pp)

OXOI- D16 53028 B/29 = US 4289-855
 Pelleted safety catalyst system held in metal foil net - for use in gaseous reactions, pref. between oxygen and hydrogen in anaerobic microorganism culturing

OXOID LTD 30.12.77-GB-054354

J04 (15.09.81) *EP--2-967 B01j-35/04 + B01j-08/02

19.12.78 as 971830 (006TM)

Appts. for culturing anaerobic microorganisms by deoxygenation, comprises an anaerobic jar to which H₂ is fed to react with O₂ in the presence of a catalyst. The latter comprises pellets enwrapped in a metal foil net which is inside a container with holes, for reducing risks of explosions.

The ratio of net to catalyst is not less than 0.75:1 by wt. Pref. the metal net is Al sheet made by slotting and expanding, and the container is of metal mesh. (4pp)

KALL/ D16 68337 D/38 = WP 8102-520
Therapeutic and diagnostic compsns. - contg. carbohydrate structures for interaction with pathogenic bacteria

KALLENIOUS GP 05.03.80-SE-001748

B04 C03 S03 (17.09.81) *EP--35-484 A61k-31/70 C07h-03 G01n-33/54

05.03.81 as SE0065 (1248) (E) DE1910715 US4125492 US4137401 WP7900910 10Jnl.Ref N(AU DK FI JP NO US)

Therapeutic and diagnostic compsn. comprises an active constituent contg. a structural element (I) of formula alpha-D-Galp-(1-4)-D-Gal, pref. in the terminal posn.

The compsn. has the ability to replace the normal receptor function in vivo in reaction to pathogenic bacteria causing infections in man and animals. It is useful for (a) diagnosis of proneness to bacterial infection, antibodies against the receptor being generated and reacted with mammalian test cells; (b) purifying the acceptor structures of bacteria by using the affinity between the structural element and the acceptor structures on the bacteria; (c) identifying bacteria having receptor structures recognising the structural element, and (d) therapeutic treatments. (28pp)

FUJI * D18 73715 D/40 *WP 8102-574
1,4-Naphthoquinone(s) and salts of their carboxyl Gps. - novel cpds. with anticoccidium activity prepd. e.g. by synthesis or culture of *Streptomyces auranticolor*

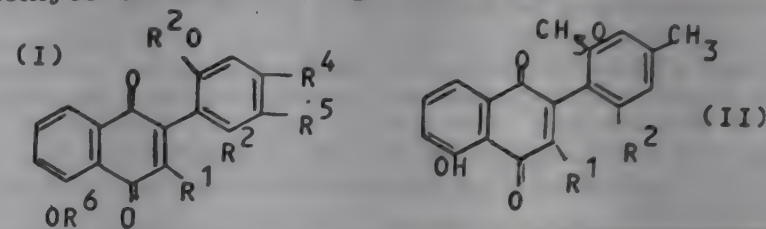
FUJISAWA PHARM KK(IKUS/) 06.03.80-JP-029675

B05 C03 (17.09.81) C07c-65 C07c-69/94 C07c-103/22 C07c-149/40 C07d-311/78 C12p-07/26

06.03.81 as 300046 (1412RH) (J) No-Citns. N(US) E(AT CH DE FR GB LU NL SE)

1,4-naphthaquinone derivs. usefu for prevention of coccidiosis
formula (I) are (where, R1 and R2 together form the gp. -OOC-, R1 is H, hydroxy, lower alkoxy or arylthio, and R2 is carboxy, esterified carboxyl or amidated carboxyl; R3 is H or lower alkyl; R4 is lower alkyl; R5 is H or halogen; R6 is H or lower alkyl or lower alkanoyl), or the salts of the carboxyl gps. of these derivs. Pref. combinations of components are, with R3, R4 being lower alkyl, pref. methyl in all cases (1) R1 and R2 together form a -OOC- gp.; R5 are H; (2) R1 is H; R2 is carboxyl; R5 and R6 are H; (3) R1 is hydroxyl; R2 is carboxyl; R5, R6 are H.

Cpd. may be obtd. through synthesis or cultivation of *Streptomyces auranticolor*, to give (II). (66pp)



See Also

D13 DD149307

D13 J56102755

D13 J81038169

D13 US4289788

D15 EPG008725

D17: SUGAR; STARCH

WYSS * D17 71789 D/40 *BE-888-860
Roasting calcium carbonate contg. sludge in granulate form - using fluidised bed with at least two temp stages to reduce dust

ESCHER WYSS GMBH 20.05.80-CH-003902

E33 L02 (16.09.81) B01j C13f

19.05.81 as 888860 (597RH)

The previously granulated sludge is roasted in the fluidised state in at least two temp. stages. The process is carried out in fluidised bed divided into temp. stages, pref. by barriers, in the direction of travel of the granulate.

It is applied to residues from sodium carbonate and cellulose mfr. and from sugar purificn. It avoids destruction of the particles thereby reducing the amt. of dust which had previously caused blockages in the heat recovery system.

The temp. pref. progressively rises with the highest being at least 880 deg.C. The granulate pref. includes organic material and also organic material is pref. added during the roasting state. The granulate is pref. classified to a desired particle size and residual material recycled. Waste heat is pref. recovered from the roasted granulate (CaO) which is reused and from the exit gases. In the appts. the barriers pref. are such that passage can take place at the bottom part. The air feed compartment in the bed is pref. divided into at least 2 zones. The residual gas exit is pref. also divided. (14pp)

SELW- * D17 72062 D/40 *EP--36-090
Sugar beet shreds dewatering - by adding dewatering aid with final press water fraction to mixing and kneading stage

SELWIG & LANGE MASC 13.03.80-DE-009575

(23.09.81) C13c-03

19.02.81 as 101170 (39HM) (G) No-Citns. E(AT BE FR GB IT NL)

Extracted shredded sugarbeets are dewatered by a prepress operation and by mixing with a dewatering aid (CaCl2) without any press action. In a second press operation the extruded water fraction is collected and a part of this, together with the dewatering aid, is added to the shredded sugarbeets after the prepress operation.

The addition of dewatering aid after instead of before the prepress operation results in a higher dry substance yield. The consumption of dewatering aid is reduced. (13pp)

STRK * D17 72129 D/40 *EP--36-241
Moulding sugar cubes and depositing on tray - in two stages then conditioning with IR heater

STORK BEPAK BV 19.03.80-NL-001629

Q35 (23.09.81) B65g-37/02 C13f-03/02 C13f-05

19.03.81 as 200305 (295) (E) US2640580 FR2306788 GB2010903 GB-693614 E(DE FR GB NL SE)

Sugar cubes are moulded on a turntable with 2 diagonal

comprising at least one row and the group is transferred as a unit onto a tray which then carries it through a subsequent conditioning station. Preferably an infra-red heater and recirculating air is used to provide the conditioning action.

Trays are delivered by a main conveyor and are then moved transversely past the sugar-moulding turntable to receive groups of cubes. In an embodiment each tray first passes one of the diagonal discharge stations and then is moved past the second before being returned to the main conveyor. (20pp)

VELT/ * D17 72159 D/40 *EP--36-309
Prepn. of particulate carbohydrate(s) from soln. - by granulation with solid prod, then drying with dielectric heating

VELTMAN P L 14.03.80-US-130531

(23.09.81) C13f-05 C13k-01 C13k-11

13.03.81 as 301060 (478BJ) (-) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Carbohydrate (I) soln. is dried as follows: (a) the (I) soln. is mixed with recycled dry solid prod; (b) the resulting particulate mixt. is dried in a dielectrically heated drying zone to afford an anhydrous prod. which is discharged, and a portion is recycled to (a).

(I) is pref. fructose, dextrose, sucrose, total sugars from sugar cane or sugar beets, or sugar cane or beet molasses. Soln. is pref. water with (I) content pref. at least 85% by wt. Step (a). Amt. of recycled solid (I) is 5-50 pts/pt of solids in soln. Particle size of recycled solid (I) is pref. 50-500 microns. The granular mixt. of (I) soln. and recycled (I) solids pref. has water content not more than 4% by wt. Granules with water-content not above 1% have max. dia. ca 8 mm; and with water-content 1-4% granules have max. dia. 4-7 mm. Step (b). A suitable apparatus is a microwave fluidised bed dryer (US 3528179), which is described in detail.

The method affords dried, solid, particulate (I) prods. which are stable to storage. Process is economical, and may be used to prepare solid prods. from (I) which are difficult to crystallise. (38pp)

CORP * D17 72356 D/40 *GB 2072-209
Starch and protein recovery from starch bearing materials - with reuse of part of process water

CPC INTERNATIONAL INC 25.03.81-GB-009280 (26.03.80-GB-010226)

(30.09.81) A23j-01 C07g-07 C13l-01

25.03.81 as 109280 (955DH)

In a first stage (i) aq. slurry of the comminuted material is formed and then (ii) a starch rich fraction is separated from the greater part of the other components of the slurry. Then (iii) the starch fraction is washed in at least one stage to give a slurry of required purity, fresh water being introduced at stage (iii) and

fractions, of which the first has a lower content of bath soluble and insoluble matter and is recycled for use with fresh water in step (III).

The modification is esp. useful in the sepn. of corn starch and protein. It enables the starch washing steps to be carried out at higher dilution to give a purer prod. without increasing the amt. of water used, which eventually has to be disposed of as light steep water. Alternatively, the use of water can be reduced, and a smaller quantity of more conc. steep water produced, without reduction in the purity of the starch produced. (15pp)

SANK- ★ D17 72934 D/40 ★ J5 6105-748
Drying agent for fermented molasses - obtained by mixing starch with calcined lime, generates heat

SANKYO YUKIKK 24.01.80-JP-008039

(22.08.81) B01d-53/26 B01j-20/24

24.01.80 as 008039 (51NS)

The agent is obtd. by mixing a starch (I) with calcined lime. In (I) calcined lime ratio 1:5.

(I) is wheat flour or rice powder. When the drying agent is mixed with waste fermented molasses, the starch substance absorbs a large amt. of water from the waste molasses. The absorbed water reacts with the calcined lime to generate heat. The waste molasses are self-heated and hence dried.

No external heat is required. (2pp)

AGEN D17 42272 V/23 = J8 1038-597
Sepn. of maltulose from maltose-maltulose mixtures - using bisulphite-type anion exchanger and eluting with water

AGENCY OF IND SCI TECH 21.01.72-JP-008146

(08.09.81) *J48077-038 + C07h-03/02

21.01.72 as 008146 (KB)

A soln. of sugar mixt. is condensed or mixed with org. solvent to remove a part of the sugar, and the residue is charged to a column of HSO₃-type anion-exchanger and eluted with water to separate sugar.

In an example, 20g maltose (I) was dissolved in 100 ml. satd. aq. Ca(OH)₂ and kept 2 days at 30 deg.C to convert 7% of the (I) into maltulose (II). The mixt. was treated with activated carbon and ion-exchanger, condensed in vacuo, mixed with 50 ml MeOH, cooled to crystallise (I) and filtered to remove crystalline (I) to give an aq. soln. contg. 67.4:32.6 I-II. The soln. (2 ml) contg. 550 mg I and 282 mg II was charged to a 1.8 cm-dia. x 50 cm column contg. HSO₃-type Dowex 1-X8 and eluted with water. The first 7

fractions contained 23 mg I and 182 mg II and the next 2 fractions contained 515g I and 82mg II. (J48077038) (4pp)

BOEF D17 54151 U/37 = J8 1038-599

Isomaltitol by hydrogenation of isomaltose

SUDDEUTSCHE ZUCKER 14.02.73-DE-307251 (12.04.72-DE-217628)

B03 (08.09.81) *BE-797-458 A23l-01/23 A61k-31/71 C12r-01/* G01n-33/50 + C07h-15/04 C12p-19/12

11.04.73 as 040522 (DH)

Title cpd. (I) useful as a low calorie sweetening agent, a medicament for chronic constipation and liver disorders and a diagnostic agent for determining kidney clearance, is prepd. by aerobic fermentation of sucrose to give isomaltose (II) which is subjected to catalytic hydrogenation in one stage.

Thus sucrose is fermented aerobically with *Protaminobacter rubrum* to give (II) with some fructose and glucose, the latter are removed by fermentation with *Sacchromyces servisiae*, then (II) is hydrogenated with Raney Ni to give (I). (J49007492) (11pp)

FIVE D17 31198 D/18 = US 4289-734

Rotary drum for liq.-solid mass or heat transfer - esp. for beet sugar prodn. has improved liq. distribution into solids

FIVES-CAIL BABCOCK 04.10.79-FR-024674

+ Q78 (15.09.81) *EP--27-396 B01d-11/02 C13d-01/12

06.10.80 as 193925 (006TM)

A liquids-solids contact appts. esp. for heat exchange is described. The appts. comprises a drum with spaced internal helical vanes between which are feed passages for the solids. The passages are divided into compartments provided with drainage gratings.

As the drum revolves the solids from one compartment fall into a following compartment, while being continuously fed towards one end of the drum for discharge.

Appts. may be used for sugar beet extraction, using hot sugar juices to preheat ingoing beets while cooling the juices. (7pp)

See Also

D16 J81038114

D18: SKINS; HIDES; LEATHER; TOBACCO

HENK ★ D18 D/40 ★ BR 8101-432

Liquid agent for treatment of shoes and leather

HENKEL KG AUF AKTIEN 12.03.80-AT-001367

(15.09.81) C09g-01/10 C14c-11

CASS D18 49263 B/27 = EP G002-773

Compsn. for treating cellulosic textiles and leather - to improve feel and water resistance, contains alkyl-substd. methylol-urea and emulsifier

CASSELLA AG 23.12.77-DE-757582

A87 E19 F06 (23.09.81) *DE2757-582 C07c-127 C14c-09

18.12.78 as 101747 (260TM) (G) DE2320302 DS-762964 US2361185 E(BE CH DE FR GB IT)

Aq. liquors contain leather conditioning and water repelling agents consisting of a) 10-35, pref. 10-25 wt. % R-NH-CO-NHn(CH₂OH)m, b) 0-10 wt. % known non-ionic emulsifiers, c) 0-3 wt. % known anionic emulsifiers, with the proviso that a + b/ 0.5-10, pref. 1-5 wt. %, d) 0-25, pref. 5-25 wt. % known fat liquors and e) 25-89.5 wt. % water or water miscible organic solvents. In the formula R is an (un)branched 14-22C alkyl or alkenyl, m = 1.0-1.5 and n = 2-m.

R is pref. stearyl, coconut fatty alkyl, tallow fatty alkyl or oleyl. Emulsifier b) is pref. A-(OCH₂-C(R')H)n-OH, where A is (di- or tri-)alkylphenyl with a total of 4-12C in the alkyl but is pref. R, R' is 1-2C alkyl but pref. H and n = 8-14. The liquor pref. contains 2-15% of the conditioning and water repelling agent.

Leathers treated, esp. at 15-70 deg.C, with the liquors have an excellent, velvety, handle, and a long lasting hydrophobic finish, which readily repels hydrophilic dirt and staining liquids such as fruit juices, red wine, ink or blood. The effects are not diminished by water, washing or dry cleaning. The treatment agents are readily available. (15pp)

PHIM D18 58516 C/33 #EP --36-025

Filamentary cigarette filters - where spaced regions of running tow are stretched to form additive recesses between unstretched regions

PHILIP MORRIS INC 13.10.77-US-841804 (06.03.80-EP-101136)

F04 J01 P15 (23.09.81) *US4214-508 + A24d-03/02 D01d-05/20

06.03.80 as 101136 (006AS) (E) FR-681317 FR--39410 CH-482851 FR2012422 FR2411580 E(CH DE GB IT)

The two runs from an entry location to an exit location, through a zone where spaced regions are stretched while intervening regions are restrained from being stretched, specifically to form recesses to receive additive material in the mfr. of filters.

Compression is not used to form the recesses, so that no portion of the filter is compacted more than other portions. The stretch regions pref. are formed by the orbiting point regions of two feed rotors of triangular X-section. (22pp)

DOKO/ ★ D18 72111 D/40 ★ EP --36-183

Leather stretching and drying device - applying radial pull on periphery and radiant heat

DOKOUPIL J 15.03.80-DE-010003

(23.09.81) C14b-01/26

12.03.81 as 101832 (39HM) (G) No-Citns. E(AT BE CH FR GB IT LI NL SE)

The area of pieces of leather or hides is enlarged and dried by placing elastic foils on both sides and by applying a vacuum to the space between. Forces, applied in the plane of the two foils, enlarge their area and that of the leather. Heat energy (infrared radiation, contact or high-frequency) is added if the pieces are to be dried.

Two foils enclose the piece of leather. A seal near the rim makes the space airtight so that a vacuum can be applied. Ropes are attached to the rims and are used to stretch the assembly by hydraulic cylinders. Infrared radiators supply the heat input. Chains can replace the ropes. (9pp)

BROO- D18 18856 X/11 = J8 1038-691
 Leather conveyor belt for fibres - is formed by removing surface and after smoothing impregnating with polymer
 BROOKSBANK 29.10.74-GB-046689
 A88 F07 Q35 + Q64 (08.09.81) *BE-834-927 C14c-11 D01g-19/18 D01h-05/86
 29.10.75 as 129378 (RH)
 A conveyor belt for transporting fibres is formed by removing the grained surface from natural leather and mechanically treating the exposed surface by e.g. drawing, pressing etc. to compact the leather fibres on the exposed surface and smooth. The smoothed surface is then impregnated with a polymer. The belt is thin, strong and flexible and has a non stick surface. The polymer may be a polyurethane emulsion or cpds. of polyvinyl or alginates. (J51072621). (2pp)

LEAT= * D18 73138 D/40 ★SU-794-078
 Prodn. of oiling compsn. for leather - by treating mixt. of polyfunctional fatty cpds. and fatty tallow acids with sulphur-contg. cpds.

LEATHER SHOE IND 04.01.79-SU-731215
 E17 (07.01.81) C14c-09
 04.01.79 as 731215 (70VE)

Leather oiling mixt. is prepd. by treating polyfunctional oxygen-contg. 17-25C aliphatic cpds. (I) with non-saponified sulphur-contg. cpds. Cpds. (I) are obtd. by deep catalytic oxidn. of fatty acids and side-products of their mfr.

The emulsifying properties of the above oiling compsn. are enhanced and the mfr. cost is decreased by subjecting to the sulphuration treatment a mixt. of (I) with fatty tallow acids (II) in the wt. ratio of 20:80 to 80:20.

Cpds. (II) are obtd. from sulphate soaps; they are inexpensive. They have a high content of unsatd. bonds which are capable of reacting with sulphur cpds. forming highly active emulsifiers. Conc. H₂SO₄ is used in an amt. of 25-35 wt.% w.r.t. the above mixt. Bul.1/7.1.81 (3pp)

BOHT D18 05993 Y/04 = SU-795-502
 Leather prodn. from pelts contg. water - pickled, tanned and dubbed in organic water immiscible nonpolar solvents
 BOHME DR T KG 19.07.75-DE-532393 (19.07.75-DE-532391)
 (07.01.81) *DE2532-393 C14c-01 C14c-03 C14c-09
 19.07.76 as 384260 (GW)

Leather is produced by pickling, tanning, neutralising, after-tanning and dubbing in non-polar, water-immiscible organic solvents, e.g. chlorohydrocarbons and fluoro chlorohydrocarbons. The unhaired pelts contain 50-80 wt.% water.

Appearance and hand of leather is equal to that of leather tanned by standard processes. Formation of polluting waste waters is avoided. Consumption of chemicals is reduced. Low water content of leather shortens drying time. Power consumption is saved.

Pickling, tanning and other chemicals may be added directly or preliminarily dissolved or dispersed in organic solvents, but not in aq. solns. Specifically, the unhaired pelts are treated with aq. solns., by standard process, up to and including pickling, followed by centrifuging, squeezing or draining before tanning, neutralising, after-tanning and oiling. Bul. 1/7.1.81. (5pp)

INFL * D18 73438 D/40 ★US 4289-145
 Augmenting aroma or taste of smoking tobacco - by addn. of 2-acetyl-1,3,3-trimethyl-cyclohexene
 INT FLAVORS & FRAGR INC 05.06.80-US-156647 (26.10.79-US-088451)

B05 E15 P15 (D13 D23) (15.09.81) A24b-03/12 A24b-15/30
 05.06.80 as 156647 (1248BZ)

Aroma or taste of a smoking tobacco is augmented or enhanced by addn. of 2-acetyl-1,3,3-trimethyl cyclohexene (I).

Cpd. (I) is useful for addn. to foodstuffs, medicinal prods., cosmetics, toothpastes, perfumes also. It is prepd. as described in US4250332 (Der.15574 D/09). (26pp)

INFL * D18 73439 D/40 ★US 4289-146
 Augmenting or enhancing aroma or taste of tobacco - by treatment with 2,4,6-trimethyl-cyclohexane methanol or its deriv.

INT FLAVORS & FRAGR INC 09.10.80-US-195675 (20.10.78-US-953128)

E15 P15 (15.09.81) A24b-03/12
 09.10.80 as 195675 C.I.p. 4195099 (+ 5.10.79-US-082076) (558NS)

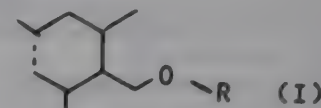
Smoking tobacco is treated with a cyclohexane deriv. of the formula where the dashed line represents a C-C single or double bond and R is H or acetyl.

The description indicates that the deriv. (I) is a novel cpd.

properties partic. organoleptic properties such as flavour fragrance of a wide variety of consumable materials, including perfumes, colognes, detergents, foodstuffs, chewing gum, toothpastes, and medicinal prods.

Tobacco is suitably treated with 0.005-0.15% the deriv. (I); opt. other flavouring or aroma additives, e.g. eugenol, dipentyl benzaldehyde, amyl acetate, cocoa extract, or nutmeg oil.

The cyclohexane deriv. (I) augments or enhances the aroma taste of the tobacco. Desirable hay-like notes can be imparted (22pp)



LEAF- * D18 73440 D/40 ★US 4289
 Mfg. smoking tobacco prod. with good flavour - by removing protein, nicotine and green pigments from tobacco leaves

LEAF PROTEINS INC 15.11.79-US-094584
 P15 (15.09.81) A24b-03/14 A24b-15/20

15.11.79 as 094584 (558NS)

A smoking tobacco prod. is obtd. by (a) converting tobacco leaves to a pulp comprising a mixt. of a coarse solid portion and a portion contg. water-soluble plant material and a suspension of finely particulate material; (b) sepg. the solid and liq. portions; removing the particulate material from the liq. portion; (d) sepg. water-soluble protein and nicotine from the liq. portion; (e) sepg. pigmented material from the solid portion and particulate material; (f) sepg. green from non-green components of the pigment pigmented material; and (g) recombining depigmented solid material, the liq. portion from which protein and nicotine have been removed, and the non-green pigment components.

The prod. has a reduced protein, nicotine, and tar content, and retains desirable flavour constituents. The process is less labor intensive than conventional processes. (6pp)

ZIEH/ D18 43298 C/25 = US 4289-
 Improving the packing capacity of tobacco - by treatment under nitrogen or argon pressure followed by heat treatment

ZIEHN K D (REEM) 29.01.79-DE-903300
 P15 (15.09.81) *BE-881-368 A24b-03/18

25.01.80 as 115382 (006DB)

Tobacco swelling process comprises pressurised gas treatment with nitrogen or argon at 300-1000 bar and at temp. up to 50 deg. After pressure relief there follows brief treatment at 100-150 deg.C, or microwave heating. Pref. the moisture content of the tobacco is increased by 20-25% before beginning the swelling process.

Process improves the filling capacity of the tobacco without impairing its taste. (4pp)

CASS D18 49263 B/27 = US 4289-
 Compsn. for treating cellulosic textiles and leather - to improve feel and water resistance, contains alkyl-substd. methylol-ur and emulsifier

CASSELLA AG 23.12.77-DE-757582
 A87 E19 F06 (15.09.81) *DE2757-582 C14c-09 D06m-13/
 D06p-05

17.08.79 as 067273 (+ 18.12.78-US-970224) (963RP)

Conditioning and water-repelling agent for leather comprises homogeneous mixt. of (a) 10-35 wt.% R-NH-CO-NHn(CH₂OH) where R is opt. branched 14-22C alk(en)yl, m is a number averaging 1.0-1.5 and n is 2 minus m; (b) 0-10 wt.% nonionic emulsifier; (c) 0-10 wt.% anionic emulsifiers, where (b) + (c) is 0.5-10%. (e) 5-25 wt.% fat liquors; and (f) 25-89.5 wt.% water or water-miscible organic solvent.

Pref. in cpd. (a) R is stearyl, coconut fatty alkyl, tallow fatty alkyl, oleyl, eucosyl or docosyl. Pref. (b) are A-(OCH₂-CHR₄)_n-C where A is 10-22C unbranched alkyl, 10-22C alkenyl, or mono-, di- or trialkylphenyl with total of 4-12C in alkyl moieties. R₄ is H or (m)ethyl; n is 8-14. (11pp)

CELF- D18 89704 A/50 = US 4289-7
 Mfr. of paper band for cigarette filter tips - structures band for high inhalation resistance coupled with mechanically strong tip

CELFIL CO 11.08.77-CH-009888

F09 P15 + P52 P72 (15.09.81) *BE-869-709 B31f-01/22 + B2
 01/36

13.06.80 as 159281 (+ 21.10.77-US-844389) (006TM)

Fibrous web for cigarette plugs has closely-spaced lengthwise corrugations, and is laterally stretching for loosening and

compacting it along spaced narrow transverse zones which eliminate the corrugations.

The transverse zones have 0.4 mm max. width, max. spacing of 2 mm, and thickness about 0.2 mm. (16pp)

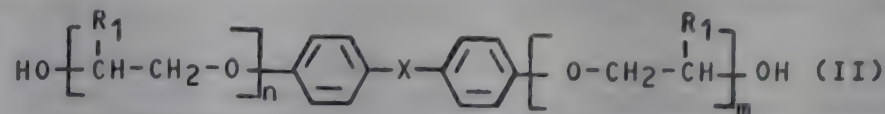
FARB D18 66303 C/38 = US 4289-827
One-component lacquer for leather coating - contg. free isocyanate gp.-contg. prod. of hydroxyl polyester and hydroxyl-polyether mixt. and polyisocyanate
BAYER AG 06.03.79-DE-908628
A82 G02 P73 (A25) (15.09.81) *DE2908-628 B32b-27/40
22.02.80 as 123854 (936TM)

Moisture-hardening one-component lacquer comprises a reaction prod. contg. free isocyanate gps. of a relatively high mol.wt. polyol (I) having an average OH functionality 2-3 and polyisocyanates.

Improvement is that (I) is a mixt. of (a) hydroxyl polyester with an average mol.wt. 500-6000, and (b) hydroxyl polyether of formula (II). In (II) R₁ is H, 1-4C alkyl or phenyl, X is -O-, -SO₂-, -CO- or -C(R₂)(R₃)-, R₂ and R₃ are each H or 1-4C alkyl, n and m

are each positive integers, value n + m being such that (II) has an average mol.wt. 300-1200. Component (b) makes up from 3-30 (4-20) wt. % of total quantity of (I). Pref. (I) further comprises polyether polyol having mol.wt. 500-600, as 0-5 wt. % of total quantity (I).

Lacquers are used partic. for coating leather, and have improved shelf life and thermal stability. (5pp)



D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

HENK ★ D21 71870 D/40 ★ DE 3007-997
Beta-amino-bis:beta-hydroxy:ethyl-amino-phenoxy ethanol
prepn. - from 2-acetyl-amino-4-amino-phenol in three steps; used as oxidn. hair dye coupler

HENKEL KG AUF AKTIEN 01.03.80-DE-007997

E24 (24.09.81) A61k-07/13 C07c-93/14

01.03.80 as 007997 (200BZ)

Beta-(2-amino-4-(bis-(beta-hydroxy ethyl)-amino)-phenoxy)-ethanol, (I), is new. (I), as its dihydrochloride, is prepd. in 3 steps. In 1st step, (1), 2-acetyl-amino-4-aminophenol is converted to 2-acetyl-amino-4-(bis-(beta-hydroxy-ethyl)-amino)-phenol, (A), by reaction with ethylene oxide. In 2nd step, (2) (A) is converted to beta-(2-acetyl-amino-4-(bis-(beta-hydroxyethyl)-amino)-phenoxy)-ethanol, (B), by further reaction with ethylene oxide in the presence of AcONa. In 3rd step, (3), the acetyl gp. is dissociated by boiling with HCl, under the formation of the dihydrochloride of (I).

The use of (I), and of its salts with inorganic or organic acids, as coupler components in oxidn. hair dyes is claimed.

Fast brown to strong blue-black shades can be achieved. (I) are non-toxic, do not irritate the skin, draw well on hair, and are water-soluble. (12pp)

NATH/ ★ D21 71899 D/40 ★ DE 3009-171
Short-wave hardening dental plastics - using radiation-polymerisation equipment contg. quartz photoconductor rod and dielectric thin layer optical filter

NATH G 11.03.80-DE-009171

A96 S05 P32 (24.09.81) A61c-05/04

11.03.80 as 009171 (200RH)

Radiation-polymerisation equipment for dental plastics, hardenable by active radiation in short-wave visible and near Uv. spectral range, comprises a W halide lamp, as radiation-source, and a photoconductor contg. a fluorocarbon polymer hose filled with a non-wetting radiation-transmitting fluid and end-sealed by transparent window plugs. The light inlet, is coupled optically to the lamp through a selectively reflecting mirror. A bent photoconductor rod is provided at the photo-conductor light outlet end. An optical filter, which dampens radiation above useful radiation spectral range, is fitted at rod end facing the photo-conductor light outlet end. Novelty consists in using an optical filter consisting of a dielectric thin layer filter having nominal transmission range up to 530 nm and a bent photo-conductor rod of quartz.

Optical efficiency of equipment is increased. Polymerisation time for a given polymerisation depth or polymerisation depth for a given polymerisation time can be increased by up to 50%. (13pp)

ROSE/ ★ D21 71924 D/40 ★ DE 3009-755
Protective lacquer for plaster or plastics stump - esp. denture pattern contains metal pigments in solvent binder mixt.

ROSENBERGER R 14.03.80-DE-009755

A82 G02 (A96) (24.09.81) C09d-03/18

Protective lacquer for application to plaster or plastics stumps, esp. denture patterns, contains 22-30 (25.95) (wt.) pts. acetone, 34-42 (37.45) pts. ethyl acetate, 25-32 (28.80) pts. collodion cotton in a concn. of 65% in 2-PrOH, 5-6.5 (5.35) pts. silicone oil as 10% soln. in xylene, 1-2 (1.45) pts. Al pigment paste and 0.8-1.5 (1.00) pts. Ag powder.

Only the pts. needing protection during further treatment need be coated, in contrast to the electroplating technique, which wastes material. The drying time of the lacquer is ca. 15 s and the total cure time ca. 5-20 min. (5pp)

WELA ★ D21 71925 D/40 ★ DE 3009-763
Three-phase cosmetic liq. compsn. - contg. aq. phase and dissolved alcohol-insoluble materials water-repellent solvent and immiscible liq.

WELLA AG 14.03.80-DE-009763

E19 (24.09.81) A61k-07

14.03.80 as 009763 (200BZ)

Liq. cosmetic compsn. contg. standard cosmetic constituents, consists of 3 liq. phases, the liqs. of which are immiscible with one another, and opt. of an additional solid phase. The compsn. for forming the 3 liq. phases pref. consists of (1) water and dissolved materials which are insoluble or difficultly soluble in alcohol, (2) at least one water-repellent solvent, e.g. a silicone oil, and opt. water-repellent materials dissolved therein, and (3) a liq. which is immiscible with the aq. soln. and with the water-repellent solvent.

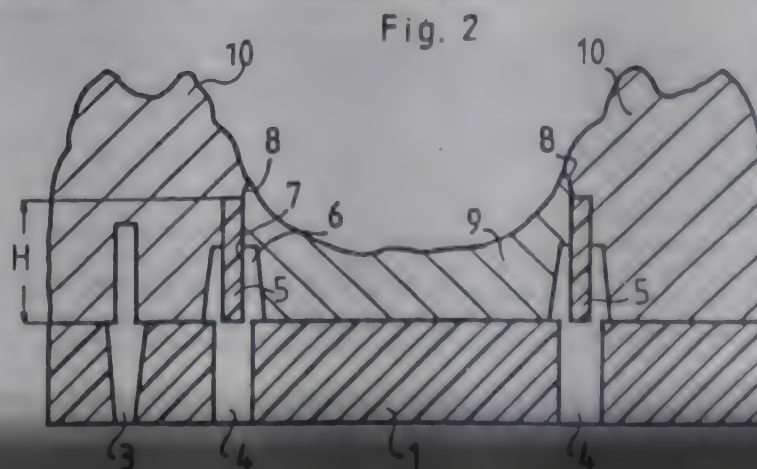
One prepn. can be applied in one step for treating various skin and hair areas. The cosmetic ingredients are present in the liq. phase in which they have highest solubility and stability. (21pp)

ZEIS/ ★ D21 71962 D/40 ★ DE 3010-184
Jaw model for replacement part production - has separation rib on base-plate forming weakened line near gum

ZEISER M 17.03.80-DE-010184 (00.00.79-DE-949697)

P32 (24.09.81) A61c-13

17.03.80 as 010184 Add to 2949697 (160BZ)



The jaw model is for the production of replacement parts such as cast fillings, crowns, bridges, prostheses etc. the positive reproduction made from modelling material being detachably secured by pins to a base. The latter is a prefabricated plate of rigid material, on which the pins are secured parallel to each other. A separation rib (5) is fixed to the base plate (1), dividing the denture (10) from the palate (9) by a weakened breakage line (8) near the gum. (9pp Dwg.No.2)

SUES/ ★ D21 72000 D/40 ★DE 3010-572
Skin-care and -protective compsns. e.g. ointments - contg. petroleum jelly and non-irritant, non toxic solvent, pref. polysiloxane or isoparaffin

SUESS HR 19.03.80-DE-010572

(24.09.81) A61k-07/40

19.03.80 as 010572 (200KB)

Skin-care and -protection compsns. contain, by wt., 10-90 (30-70)% petroleum jelly, (I), and 90-10 (30-70)% non-toxic solvent, (II), forming clear solns. with (I) at or above (I)-melting range. (II) pref. consists of one or more lineas and/or cyclic organo-polysiloxanes and/or branched paraffins.

Mixt. is used as sun-protection- and skin-care cosmetics. (II) prevents (I)-caused skin irritation and acanthosis. On cooling the solns. of (I) and (II) ointment-like mixts. are obtd. which spread well and penetrate deeply into skin. (II) evaporate quickly off skin, leaving a layer which is not washed off completely with soaps or syndets. The compsns. require no preservatives, are odourless and cause no allergies.(11pp)

BEEC D21 05825 C/04 = DS 2960-420
Inhibiting corrosion of aluminium tooth-paste tubes - by fluoride contg. tooth-paste with silica thickener, by addn. of sodium or potassium hydroxide or carbonate

BEECHAM GROUP LTD 12.07.78-GB-029588

E34 (24.09.81) *EP---7-170 A61k-07/18 C23f-11/18

04.06.79 as 960420 Based on EPG007170 (974AT)

Corrosion of Al tubes by gel tooth pastes comprising a fluoride source and a silica thickener is inhibited by incorporating at least 0.01 wt.% NaOH, KOH, Na₂CO₃ or K₂CO₃ into the toothpaste to give a pH of at least 8.5.

Pref. the toothpaste is a clear or translucent gel. Pref. the hydroxide is at up to 1, esp. 0.05-0.4, wt.% of the toothpaste. Pref. the carbonate is at up to 1.5, esp. 0.1-1.0 wt.% of the toothpaste. (5pp)

FARB D21 05787 C/04 = EP G007-101
Polyhydric alcohol prepn. by formose hydrogenation - over precious metal catalyst, used in opt. foamed polyurethane prepn.

BAYER AG 19.07.78-DE-831659

A41 C03 E17 (26.08.81) *EP---7-101 C07c-29/13 C07c-31/18 C08g-18/32

12.07.79 as 102407 (260JB) (G) DE2536416 DE2639083 DE2639084 DS1069135 DS1543178 GB1497318 US2224910 US2271083 US2775621 US3055840 US3260759 1.Jnl.Ref E(BE DE FR GB IT)

Mixts. of polyhydric alcohols are prepared by catalytic hydrogenation of formose, pref. at pH 2.0-7.0, in pref. 10(power (-)2) to 5x10(power (-)7) g of catalyst per g formose, Ru as catalyst possibly in admixt. with lesser amts. of co-catalysts or promoters.

The catalyst is pref. activated with H₂ under reaction conditions in prescence of reduced formose prior to the hydrogenation. The formose pref. contains up to 5 wt.% HCOH and/or up to 80 wt.%, referred to all substances to be hydrogenated, of other natural or synthetic sugars.

The process is rapid of the formose, does not require prior working up, purificn. or modification. The prods. are valuable starting materials for e.g. emulsifiers for cosmetics, but esp. as active OH contg. components for the prodn. of (cellular) polyurethane. (12pp)

HENK ★ D21 72081 D/40 ★EP --36-134
Deodorant cosmetic compsn. - contg. medium to long chain alkanolic (di carboxylic acid (deriv.))

HENKEL KG AUF AKTIEN 13.03.80-DE-009546

E19 (23.09.81) A61k-07/32

05.03.81 as 101570 (513RP) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Deodourant cosmetic compsn. contains a deriv. of a medium to long chain alkanolic acid of formula R₁-(CH₂)₄-C(=O)Y (where R₁ is 1-11C alkyl or a -(CH₂)_n-C(=X)Y gp, n=0-8, X is O, Y is -OH, -OR₄, NR₅R₆ in which R₄ is 2-10C alkyl or aralkyl and R₅ and R₆ are each H, 1-12C alkyl, 2-4C hydroxyalkyl, alkoxyalkyl, aryl or aralkyl, or together with the N atom form a heterocyclic ring, or -C(=X)Y may also be anitrile gp.

Pref. deodourants contain 0.1-5, esp. 0.5-2 wt.% (I) together with 0.01-1 wt.% antioxidants and known deodorants.

performance. (14pp)

HENK ★ D21 72082 D/40 ★EP --36-135
Deodorant cosmetic compsn. - contg. amino-benzoic acid amide deriv.

HENKEL KG AUF AKTIEN 13.03.80-DE-009542

E14 (E13) (23.09.81) A61k-07/32

05.03.81 as 101571 (513RP) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Deodourant cosmetic compsn. contains an amino-benzoic acid amide cpd. of formula (I). In (I) R₁ and R₂ are each H, 1-12C alkyl, 2-4C hydroxyalkyl, alkoxyalkyl with 1-8C in the alkoxy gp. and 1-3C in the alkyl gp., aryl, aralkyl or 1-3C carboxyalkyl, or R₁ and R₂ together with the amide N form an opt. subst. heterocyclic ring.

Pref. deodourants contain 0.1-5, esp. 0.5-2 wt.% (I), together with 0.01-1 wt.%, esp. 0.05-0.5 wt.% antioxidants and known deodourants base components. The (I) are odourless, do not cause skin irritation, have good antimicrobial effect and give good deodourant performance. (13pp)



KANE ★ D21 72116 D/40 ★EP --36-199
Powder or cake make/up compsns. - consisting of mixt. of pigment coated with regenerated fibroin, and pigment coated with oily material

KANEBO KK 15.03.80-JP-033302

(23.09.81) A61k-07/02

13.03.81 as 101585 (478KB) (E) No-Citns. E(CH DE FR GB LI)

Make-up compsn. (powder or cake) consists of a homogeneous mixts. of: (a) a finely-divided carrier pigment (I) coated with a film of regenerated fibroin (II); and (b) (I) coated with an H₂O-insol. oily material (III). The compsn. has excellent adhesion to skin, H₂O-retention, ability and fragrance retention, and is not irritating to skin but gives it a moist smooth feeling and silk-like gloss. No agglomeration or caking occurs and the compsn. may be applied to skin at all seasons using a wet or dry applicator.

(II) contains at least 50 (esp. 90-100) wt.% of hot-H₂O-insol. fibroin, and has average mol. wt. at least 50,000, pref. 80,000-150,000. Amt. of (II) film is 2-100 (5-50) wt.% of (I). The (II) film has degree of crystallinity at least 10 (20-43)%; and thickness 0.01-50 microns. (41pp)

ROHM ★ D21 72141 D/40 ★EP --36-272
Compsns. for preparing permanent dental restorations - contg. methyl-methacrylate and unsatd. monomer, organic polymer and inorganic cpd., and redox initiator system

ROHM & HAAS CO 07.03.80-US-128010

A96 (A14) (23.09.81) A61k-06/08

05.03.81 as 300921 (478AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Compsn. for prepg. permanent dental restorations consists of (by wt.): (a) 25-80 pts. of a mixt. contg. 50-85% of Me methacrylate (I) and 15-50% of one or more polyethylenically unsatd. crosslinking monomers (II); (b) 20-75 pts. of a mixt. of an organic polymeric particulate substance (III) and an inorganic particulate substance (IV) (both insol. in the liq. monomer system (a)); and (c) a redox initiator system.

When used the compsns. pref. afford restorations of min. compressive strength 30,000 psi and/or rotary wear value at least 20 hr/25.4 microns. Prefd. (III) contain F, e.g. poly(ethylene-co-chlorotrifluoroethylene) or poly(vinylidene fluoride), and have particle size pref. 25-75 microns. Pref. (IV) are hydroxyapatite or stearate-coated CaCO₃, and have particle size pref. 0.075-90 microns. Wt. ratio (III):(IV) is pref. 1:1-5, esp. 1-2:3.

The compsns. are useful for prepg. permanent dental restorations (esp. crowns) having high compressive strength and wear resistance. The restorations may be prepd. rapidly. (17pp)

MERE D21 84121 A/47 = GB 1599-010
Hexadiene acetal cpds. - used for colouring the skin or hair

MERCK PATENT GMBH 20.05.77-DE-722725

E24 (E23) (30.09.81) *BE-887-260 A61k-07 C07c-43/30 + D06p-03/24

17.05.78 as 020211 (965PW)

Cosmetic compsn. for tanning skin or dyeing hair comprises cpd. of formula



and 1 or more suitable carriers and/or additives. R₇ is di(m)ethoxymethyl CH(O(R₆))₂, 1,3-dioxolan-2-yl, 4-methyl-1,3-dioxolan-2-yl or 1,3-dioxan-2-yl. R₂, R₃, R₄ and R₅ are H, Me or Et. R₆ is 3-8C alkyl. Pref. compsn. also contains dihydroxyacetone. Also claimed is a compsn. contg. (I) where R₇ is formyl.

(15pp)

HENK D21 58758 A/33 = GB 1599-324
Hair decolourising product based on peroxide cpds. - contg. guanidine derivatives as accelerators

HENKEL KG AUF AKTIEN 05.02.77-DE-704905

E16 (30.09.81) *BE-863-636 A61k-07/13

03.02.78 as 004373 (936PW)

Hair bleaching compsn. comprises (a) peroxide oxidn. agent; (b) ammonia-free alkanisation agent; and (c) as bleaching accelerator a guanidine deriv. of formula

$Y-NH-C(NH)-NH-(CH_2)_n-NHR$ (I)

R is H, $-C(NH)-NH$ or $-(CH_2)_n-NH-C(NH)-NH$; Y is H, NH_2 or 1-4C alkyl; and n is 2 or 3. Pref. (I) is in the form of an (in)organic acid salt. Compsn. pref. contains (I) as 0.1-10 (esp. 0.5-3) wt.%. Compsn. pref. further comprises 0.2-20 (esp. 0.5-5) wt.% ethylene diurea. Oxidative damage to the hair is minimised and bleaching accelerators used are toxicologically compatible. (10pp)

UNIL D21 76863 A/43 = GB 1599-414
Aq. hair shampoo inhibiting fat distribution - contains fluorine-free anionic, ampholytic or nonionic surfactant and non-polymeric fluoro surfactant

UNILEVER NV 18.04.77-GB-015969

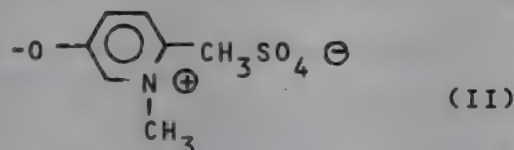
E19 (30.09.81) *DE2816-828 C11d-01

18.04.78 as ----- (924)

Aq. hair shampoo comprises a water-soluble F-free anionic ampholytic or nonionic detergent-active cpd. and an anionic, ampholytic, nonionic or cationic non-polymer fluorosurfactant of formula $(R_f(X)a)_b-Y$ (I). In the formula R_f is monovalent, perfluorinated opt. branched 6-22C aliphatic gp. derived by oligomerisation of 4-6 molecules of tetrafluoroethylene; X is a polyvalent bonding gp.

Y is $-CO_2H$, $-SO_3H$, $-OPO(OH)_2$, $-OPO(OH)O-$ or salt, $N(+)(C_2H_5)_2C_2H_4CO_2(-)$, gp. (II), $N(+)(CH_3)_3Q$ where Q is I(-) or OH(-) or $CH_3SO_4(-)$, or $-(CH_2CH_2O)_n-R_2$; n is 0-100 and R_2 is H, OH, 1-20C alkyl or R_5 . a is 0 or 1; and b is 1 except when Y is $-OPO(OH)(O)$ b is 2. The ratio of amt. of detergent active cpd. to fluorosurfactant is such that the shampoo provides the hair with a contact angle to alpha-bromonaphthalene of at least 45 deg.

The shampoo has anti-grease properties. (8pp)



KANE ★ D21 72301 D/40 ★ GB 2072-014
table cosmetic emulsions - contg. 18-alpha glycyrrhizin as emulsifier

KANEBO KK(MAZN) 02.10.80-JP-138511 (08.03.80-JP-029607)

E13 (30.09.81) A61k-07/48

3.03.81 as 006596 (955RP)

A cream or milk cosmetic contains an oily substance, water, and an emulsifying agent at least one novel 18-alpha glycyrrhizin selected from the free acid or Na, K and/or ammonium salts, or a glycyrrhizin mixt. contg. 10-98 mole.% 18-alpha isomer and 2-90 mole % 18-beta isomer as the free acids or the above salts.

The glycyrrhizins are non-irritating to the skin, and produce stable emulsions. The use of the naturally occurring 18-beta isomer is known. The 18-alpha isomer has the further advantages that it dissolves rapidly, has no tendency to gel even at low pH does not produce long-lasting foams on agitation, and does not permit sepn. or sedimentation to occur even after freeze-thaw cycling. (25pp)

REA ★ D21 72303 D/40 ★ GB 2072-016
table oil-in-water emulsion - for cosmetic and pharmaceutical use

L'OREAL SA 24.03.80-FR-006468

A96 B05 E19 (30.09.81) A61k-07

3.03.81 as 009022 (476BZ)

An oil-in-water emulsion in which the emulsifying system comprises (i) a mixture of one or more monoalkyl and/or dialkyl carboxylates of one or more alpha-methylglucosides with one or more monoalkyl and/or dialkyl carboxylates of one or more alpha-methylglucosides polyoxyethyleneated with 10-30 mols. of ethylene oxide, the alkyl radicals being 11-21C linear or branched alkyl radicals; (ii) lecithin; (iii) egg yolk oil; and (iv) a water-soluble acrylic acid polymer, is new.

Known emulsions contg. (i) have good unctuousness and spreadability and a substantially gel-like texture but they lack storage stability esp. when exposed to heat. The present emulsions overcome this disadvantage and may be preserved at temps. of the order of 50 deg C. They also have distinctly greater stability than similar emulsions not contg. the particular

combination of ingredients (i), (ii), (iii) and (iv) all of which constituents are necessary for the stability of the present emulsions. These emulsions can be used in cosmetic creams, etc. and also in pharmaceutical excipients for creams, balms and ointments. (8pp)

BEIN/ ★ D21 72359 D/40 ★ GB 2072-215
Floating soap - with pockets of air or gas incorporated to reduce bar density below one

BEINY D H M 19.03.80-GB-009250

(30.09.81) C11d-17/02

19.03.80 as 009250 (1358AS)

Floating soap is made by incorporating air or other gas into a bar in pockets sized such that overall bar density is less than that of water. The pockets may be enclosed in a plastic or waterproof membrane to prevent water seeping in or the air may be contained in sponge material.

Some or all pockets may be filled with liquid, still leaving average density below 1. The soap may be of any size, shape or colour, and is easier to retrieve if dropped into water. (2pp)

SNKM ★ D21 72409 D/40 ★ J5 6102-540
Nickel alloy for dental use - contains cobalt, chromium, molybdenum, copper, silicon, and carbon

SANKIN KOGYO KK 17.01.80-JP-004248

M26 (17.08.81) A61k-06/04 C22c-19/05

17.01.80 as 004248 (32DH)

Ni alloy for dental use comprises Co 3-42%, Cr 5-30%, Mo 2-18%, W 0-10%, Cu 0-10%, Si 0.1-3%, C 0.01-0.5% and the balance Ni and impurities.

This Ni alloy is suitable as a cast bed of dental use. The alloy has a relatively low m.pt. owing to the Mo, Cu and Si contents in the stated ranges, so that the alloy can be cast in a mould including a plaster insert. The cast prod. has a good surface without sintering onto the mould or insert. Typically the m.pt. is 1340 deg. C, the hardness is 300 Hv, the bending resistance is 118 kg/sq. mm, the max. bending is less than 20 mm and the elasticity limit is 65 kg/sq. mm.

KURS ★ D21 72505 D/40 ★ J5 6103-103
Dental cavity-sealing agent - contains polymerisable methacrylate monomer mixt. filler and hardening agent of polymerisation catalyst and initiator

KURARAY KK 21.01.80-JP-005983

A96 (18.08.81) A61k-06/08

21.01.80 as 005983 (42RP)

A dental cavity-sealing agent (I) consists of (1) polymerisable methacrylate monomer-mixt. of 1,2-bis(3-methacryloxy-2-hydroxypropoxy) ethane (II), 2,2'-bis(4-(3-methacryloxy-2-hydroxy propoxy)phenyl)propane (III), neopentyl glycol dimethacrylate (IV) and triethylene glycol dimethacrylate (V), (2) filler (VI) and (3) polymer-hardening agent composed of polymerisation-catalyst (VII) and polymerisation-initiator (VIII).

Since the viscosity of (I) is low in comparison with those of other known (I), it easily penetrates into small dental cavities and adhere tightly to the surface of the cavities. (VII) and (VIII) should be packaged separately, and mixed just before use. The volume ratio of the component (1) to the sum of (1) and (2) is 30-50%. The wt. ratio of the component (3) to the component (1) is 0.1-6%. The contents of (II), (III), (IV) and (V) in the component (2) are 10-20 wt.%, 51-60 wt.%, 10-20 wt.% and 10-17 wt.% respectively. (6pp)

SHIS ★ D21 72506 D/40 ★ J5 6103-104
Oil-in-water type emulsion for cosmetics - contains fatty acid soap, di-basic acid soap and ether carboxylic acid surfactant for improved stability

SHISEIDO KK 19.01.80-JP-004988

E19 (18.08.81) A61k-07

19.01.80 as 004988 (42RP)

Emulsion-compn. (I) of pH 4.5-7.5, is composed of (1) higher fatty acid-soap (II) of formula, $RCOOM$, (R is 11-30C alkyl or alkenyl, and M is alkali metal, triethanol amine or basic amino acid), and/or (2) dibasic acid soap (III) of formula, $MOOCR'COOM$, (R' is 2-34C alkylene and M and M' are each H, alkali metal, triethanol amine or basic amino acid), and (3) ether carboxylic acid type surfactant (IV) of formulae,

$R-O-(C_2H_4O)_n-CH_2COOX$, $R-O-(C_3H_6O)_m-CH_2COOX$ and $R-O-(C_3H_6O)-(C_2H_4O)_n-CH_2COOX$

(R is 12-24C higher fatty acid residue, X is H, alkali metal, triethanol amine or basic amino acid and m and n are integral numbers).

(I) is stable and is used as a cosmetics. The fatty acid in (II) is lauric, stearic, oleic, isostearic, behenic or lanolic acid. The dibasic acid in (III) is succinic, adipic, sebacic, dodecanic acid, etc. (IV) is polyoxy ethylen stearyl ether methyl carboxylic acid.

(4pp)

SHIS ★ D21 72507 D/40 ★ J5 6103-105
Yellowish red make-up cosmetic - comprises cation exchange clay on which rhodamine B, polyvalent metal salt and, water soluble polymer are adsorbed

SHISEIDO KK 19.01.80-JP-004989

A96 (18.08.81) A61k-07/02

19.01.80 as 004989 (42PW)

Yellowish red cosmetic (I) contains cation-exchange clay (II), on which rhodamine B(III), polyvalent metal salt (IV) and water-soluble polymer (V) are adsorbed, is new.

Montmollironite, zeolite, kaolin, halosite, etc. are used as (II). Examples of (IV) are chlorides and sulphates of Cu, Ba, Zn, Mg, Mn, Al etc. As (V), gelatin, casein, starch, vegetable gums, gums from sea weeds, methylcellulose, CMC, PVA, polyethylene oxide, etc. are listed. The amt. of (V) used should be 1-50% per that of (II). (5pp)

SEIW. ★ D21 72508 D/40 ★ J5 6103-106
Hydrolysed keratin- contg. hair treatment compsn. - to protect hair during permanent wave treatment

SEIWA KASEI KK 21.01.80-JP-005508

A96 (18.08.81) A61k-07/09

21.01.80 as 005508 (42RH)

An agent (I) contg. hydrolysed keratin (II) as principal component is new. Permanent-wave treatment is effected as follows; (1) hair is treated with an aq. soln. of a reductant such as thioglycolic acid or cystein, after being curled around curling rod and then (2) hair is treated with a neutral aq. soln. of an oxidant. Thus, disulphide linkages in cystein contained in keratin of hair are reduced and cleaved by the treatment (1), and then new disulphide linkages are regenerated by the oxidn. in the treatment (2). During such permanent-wave treatments, a part of the disulphide-linkage remains unregenerated or excessively oxidised, resulting in that hair becomes dry. When hair is treated with (I) before permanent wave treatment, the above damages of hair are prevented.

When hair is treated with (I), (II) adheres on the surface of hair. The mol.wt. of (II) is pref. 300-500. The other components in (I) are solvent (water or alcohol), chelating agent, pigment, perfume, pH-controlling agent, etc. (6pp)

SHIS ★ D21 72748 D/40 ★ J5 6104-807
Stable cosmetic having excellent feel, colour tone etc. - contains esterified prod. obtd. from polyhydric alcohol, fatty acid and di:basic acid, for face creams etc.

SHISEIDO KK 24.01.80-JP-007302

E17 (20.08.81) A61k-07

24.01.80 as 007302 (5RP)

Cosmetics contg. at least one esterified prod. are obtd. by esterifying the components (a), (b) and (c). (a) Polyhydric alcohol. (b) One or more cpds. selected from above 8C straight fatty acid, branched fatty acid, unsatd. fatty acid and hydroxy fatty acid. (c) Above 12C opt. branched dibasic acid, of which amt. is above 1/2 fold in mol on polyhydric alcohol.

The esterified prod. (oligoester) is excellent as cosmetic base and obtd. cosmetics (e.g. cream, milk lotion, lipstick, foundation, cosmetique, pomade, shampoo, etc.), are excellent in colour tone, flavour, stability, feeling at use and uniformity in quality. The oligoesters have excellent affinity to skin, adhesive property to skin, humidity-holding properties, stability, etc. (7pp)

ROUR. ★ D21 72749 D/40 ★ J5 6104-809
Hair cosmetic - comprises polypeptide derived from collagen, and methacrylic acid ester polymer

ROUR DUPONT KASEI K 25.01.80-JP-007611

A96 (20.08.81) A61k-07/06

25.01.80 as 007611 (22PW)

Hair cosmetics comprises polypeptide derived from collagen, and methacrylic acid ester polymer. The amt. of the polypeptide is 20-60wt.% and that of methacrylic acid ester polymer is 0.5-40wt.%. There may be incorporated also oily substance in an amt. of 5-20wt.% and purified water in an amt. of 10-60wt.%. The components are mixed with one another with the use of surfactants heating at 50-60 deg.C, followed by homogenisation by mechanical means. (3pp)

LIOY ★ D21 72750 D/40 ★ J5 6104-811
Compsn. for oral use e.g. tooth-paste - contg. as thickening agent, a hydroxyethyl cellulose-ethylene oxide adduct

LION DENTIFRICE KK 23.01.80-JP-006693

A96 (20.08.81) A61k-07/16 *

23.01.80 as 006693 (22RH)

Compsn. for mouth use is claimed which contains hydroxyethyl cellulose-ethylene oxide adduct, mole number of ethylene oxide

etc.

Typical example of the present dental paste is that consisting of 43.0% insoluble sodium metaphosphate, 20.0% glycerine, 1.3% ethylene oxide-hydroxyethyl cellulose adduct (2.5 ethylene oxide per mole of hydroxyethyl cellulose), 1.5% of sodium lauryl sulphate, 0.2% of saccharin, 0.01% antiseptics, 1.0% flavour, 2.0% pentasodium phitine, 0.4% of tin fluoride, 1.0% tripyrophosphate, and balance water. (6pp)

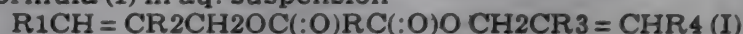
TOKU ★ D21 72796 D/40 ★ J5 6104-91-
Di:carboxylic acid ester polymer prepn. used as filler - by pearl polymerisation opt. with acrylic, vinyl or di:allyl monomers to give crosslinked spherical beads

TOKUYAMA SODA KK 28.01.80-JP-007777

A12 (A96) (21.08.81) C08f-02/20 C08f-118/16 C08f-122/28

28.01.80 as 007777 (83BZ)

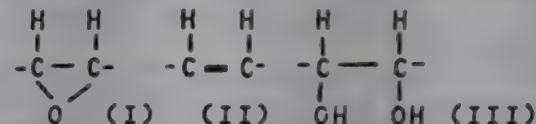
Method comprises (co)polymerising dicarboxylic acid ester of formula (I) in aq. suspension



(R1 to R4 are H or CH3(CH2)n; n is 0 or an integer; R is gp. (I) (II) or (III) or -(CH2)m; m is an integer).

The polymerisation can be carried out by pearl polymerisation (I) may be copolymerised with up to 50 pbw of monomer such as acrylic monomers, diallyl cpds., vinyl monomers etc. The suspension stabiliser used is e.g. gelatin, starch, sodium alginate, PVA, cellulose derivs., etc. Inorganic filler-contg. beads can be obtained simply by adding the filler of particle size of 0.001-10 microns to the suspension polymerisation system.

Used as polymeric filler for synthetic resins, partic. for dental material. The method gives crosslinked polymer in the form of spherical beads with av. dia. of 1 to 200 microns. (7pp)



NIOF ★ D21 72844 D/40 ★ J5 6104-99-
Shampoo compsn. esp. for use in hard water - contains salt of N-poly:oxy:ethylene fatty-acid amide sulphuric ester

NIPPON OILS & FATS KK 24.01.80-JP-007313

A96 E19 (21.08.81) C11d-01/83

24.01.80 as 007313 (126AT)

A shampoo compsn. contains 5-40wt.% A and 1-15wt.% B, where A is a salt of N-polyoxyethylene fatty acid amide sulphuric ester of formula $RC(O)NH(CH_2CH_2O)_nSO_3M$. (R is 7-19C alkyl or alkenyl; n is 2-5; and M is a counterion which forms a water-soluble salt). B is a mixt. of N-polyoxyethylene fatty acid amide (B1) of formula $RC(O)NH(CH_2CH_2O)_nH$. (R is 7-19C alkyl or alkenyl; n is 2-4) with a diethanolamide of lauric acid or coconut oil fatty acid (B2). B1/B2 is 0.05-0.4 (by wt.).

The shampoo compsn. has superior frothing effect in hard water, and improved solubility at low temp. It is only slightly irritative to the skin and provides a transparent shampoo compsn. giving an agreeable feeling after washing hair (5pp)

TOAG D21 84182 X/45 = J8 1037-963
Water soluble dental cement compsn. - contg. zinc oxide cement and a polyacrylic acid hardener

TOA GOSEI CHEM IND LTD 19.03.75-JP-032155

A96 (03.09.81) *J51107-695 + A61k-06/02

19.03.75 as 032155 (DJ)

Dental cement powder (I) consisting of zinc oxide, and a hardening agent (II) consisting of polyacrylic acid and contg. less than 10 wt.% moisture are mixed in the wt. ratio of (I) to (II) of 1.5-5.0:1 to form a water-soluble dental cement compsn. The compsn. is easy handled. (J51107695) (3pp)

NIPK D21 20230 A/11 = J8 1037-964
Aq. hardening soln. for dental cement - contains polyacrylic acid or acrylic copolymer and inorganic acid

NIPPON KAYAKU KK 15.07.76-JP-083496

A96 E36 (A14) (03.09.81) *J53010-590 + A61k-06/02

15.07.76 as 083496 (86DH)

Hardening soln. for dental cement consists of an aq. soln. contg. 40 to 60 wt.% polyacrylic acid or an acrylic copolymer and 0.5 to 10 wt.% inorganic acid. Pref. the inorganic acid is orthophosphoric acid, pyrophosphoric acid, tripolyphosphoric acid, hydrochloric acid, nitric acid or sulphuric acid. The acrylic copolymer is of acrylic acid and 2-chloroacrylic acid, 2-bromoacrylic acid, maleic acid, fumaric acid or itaconic acid.

The soln. is used in dental cement e.g. glass ionomer cement powder consisting of 37 to 45 wt.% SiO₂, 25-35 wt.% Al₂O₃, 5 to 13 wt.% CaO, 10 to 15 wt.% sodium fluoride and 3 to 7% calcium phosphate (J53010695) (4pp)

GCDE- D21 61434 Y/35 = J8 1037-965
Hardening soln. for ionomeric dental glass cements - contg. aq. soln. of acrylic acid (co)polymer and polycarboxylic acid
G-C DENTAL IND 24.02.76-JP-018480
A96 (A14) (03.09.81) *DE2651-316 + A61k-06/08
 24.02.76 as 018480 (200JB)
 New hardening soln. (A), for ionomeric dental glass cements consists of a 45-60% aq. soln. of an acrylic acid homo- or copolymer with an addn. of 7-25 (10-15) wt.% (w.r.t. total wt.) of one or more polybasic carboxylic acids.
 Hardening soln. allows prodn. of a strong, transparent ionomeric glass cement, having appearance of natural teeth. Hardening time is reduced and workability, strength and stability to water are improved. Cement can also be used as filler for front teeth. Cement is not damaged by contact with water during hardening.
 In an example, a hardening soln. contained 51% polyacrylic acid having mol. wt. 5000, 42% water, 5% malic acid and 2% citric acid. (J52101893) (4pp)

SHIS D21 00905 A/01 = J8 1037-966
Gel compsn. prepn. for nail enamel use - using solvent gel fraction contg. montmorillonite clay and a nitrocellulose dope
SHISEIDO KK 12.05.76-JP-054030
A96 (03.09.81) *J52136-926 A61k-07/04
 12.05.76 as 054030 (5AS)
 Method comprises swelling a solvent gel fraction (A) composed of organic modified montmorillonite clay 4.12%, aliphatic alcohol 30-5% and toluene 55-30%, and mixing it with nitrocellulose dope (B) composed of nitrocellulose 5-10% and n-butylacetate 27-22%. The proportion of (A):(B) = 2:1-3.
 Organic modified montmorillonite is previously swelled and dispersed in the fraction (A). The dope (B) is dissolved well, and the fraction (A) is added and dispersed in the dope (B). Thus a highly stable montmorillonite suspension can be obtd.
 The montmorillonite is applied with the object of preventing sepn. and pptn. of pigment, pearl agent, etc. (J52136926) (3pp)

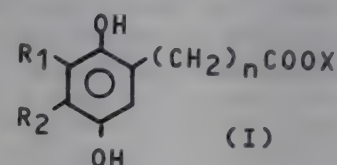
KANE D21 15381 C/09 = J8 1038-124
Storage stable foamable bath salts - comprises succinic acid, and anhydrous sodium carbonate opt. with sodium bi:carbonate and/or sodium sesqui:carbonate
KANEBO KK 30.06.78-JP-080032
E17 (E34) (04.09.81) *J55007-246 A61k-07/50
 30.06.78 as 080032 (42AS)
 Storable bath salt (I), contains (1) succinic acid (II) and (2) at least 1 of sodium carbonate anhydrate (III), mixt. of (III) and sodium bicarbonate (IV) and sodium sesquicarbonate. (V). The content of (III) in (I) of (II) per wt. of the sum of (III), (IV) and (V) is 5-90 wt.%, e.g. (10-80 wt.%) and 10-120 wt.% e.g. (20-100 wt.%) respectively.
 The total content of (IV) and (V) in (I) is pref. 5-75 wt.%. Other components are (a) sodium sulphate and/or sodium chloride, (b) CMC or hydroxy propyl cellulose, (c) pigments and (d) perfume agent. (I) may be a solid cake, powder, crystal or tablet. In an example, 70 pts.wt. (III), 30 pts.wt. (II), 2 pts.wt. of perfume and a small amt. of pigment were mixed. Thus prepared (I) did not change in quality after 3 months storage at 45 deg.C and relative humidity 75%.
 When (I) is dissolved in bath-water, it bubbles and foams and generates perfume and colour. The present (I) does not foam by absorption of moisture during storage. (J55007246) (4pp)

ONOD/★ D21 72972 D/40 ★ J8 1038-125
Boiling and fermenting water oats - using Bacillus subtilis ON-1 (ferm. no. 4608), to contain bathing agent (J5 18.4.80)
ONODERA F 17.10.78-JP-126817
(D16) (04.09.81) A61k-07/50
 17.10.78 as 126817 (22NS)
 Water oats are boiled and fermented with novel mutant Bacillus subtilis ON-1 (FERM No. 4608).
 The prod. is used as a bathing agent. (J55053213) (5pp)

TAKE/ D21 68636 C/39 = J8 1038-566
Anticorrosive filler compsn. for fine crevices - comprising homogeneous blend of silicic acid and alpha-cyano acrylate
TAKEUCHI M 00.00.79-JP-172806 (22.03.73-JP-032904)
A96 (A14) (08.09.81) *J55105-608 A61k-06/02
 22.03.73 as 172806 / 79 Div.ex. 032904/73 (15DJ)
 The compsn. of anticorrosive fillers for coating fine crevices on serrated surface comprises a homogeneous blend which consists of silicic acid having a fine granular dia. 1.0-100.0 microns and (alpha)-cyanoacrylate.
 The alpha-cyanoacrylate is a lower alkyl ester of alpha-cyanoacrylic acid, e.g. (m)ethyl ester, n-propyl, isopropyl, n-butyl acid or isobutyl ester.
 The silicic acid particles having the fine granular dia. of 1.0-100

silicic acid particles is mixed with a balance wt. % of the lower alkyl ester of alpha-cyanoacrylic acid to obtain a thixotropic mixt. The compsn. of anticorrosive fillers produced above is mixed with DMF to obtain a coating compsn. The serrated surface is first cleaned with an acid and the serrated surface is coated with the above compsn. where the acid is chosen from phosphoric or citric acid. (J55105608) (3pp)

OREA D21 14189 B/08 = US 4289-49
Hair colouring compsn. contg. oxidn. dyes - and 2,5-di:hydroxyphenyl alkanolic acid cpds.
L'OREAL SA 19.08.77-LU-077994
E14 + P14 (E12) (15.09.81) *BE-869-840 A01k-07/13
 18.08.78 as 934830 (965TM)
 Compsn. suitable for dyeing human hair consists of at least 1 oxidative dyestuff, and as an antioxidant a 2,5-dihydroxyphenylalkanoic acid (salt) of formula (I). R1 and R2 are H or n- or iso- 1-4C alkyl, X is H, alkali metal, NH4 or an alkanolamine radical. n is 1-4. Pref. R1 or R2 is (m)ethyl or propyl and X is Na, K or mono-, di-, or tri-ethanolamine radical. Pref. (I) is e.g. 2-(2',5'-dihydroxy -4'-methylphenyl) acetic acid, or 3-(2',5'-dihydroxy-4'-methylphenyl)-propionic acid. Pref. the compsn. contains 0.05-5 wt. % (I).
 (I) does not give to the dye compsn. an unpleasant odour as would mercaptans, inorganic sulphites or sodium dithionide. (13pp)

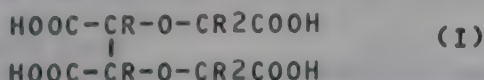


FARB D21 34868 C/20 = US 4289-646
Propellant gas for e.g. hair sprays or insecticidal compsns. - contains 1,1-di:fluoro-2-chloroethylene
BAYER AG 27.10.78-DE-846811
C03 E17 G04 + Q34 (15.09.81) *DE2846-811 C09k-03/30
 11.10.79 as 083900 (974MR)
 Novel containers for dispersing a spray comprise a container, a valve sealing the container, a conventional filler within the container and a pressurised propellant gas.
 The propellant is 1,1-difluoro-2-chloroethylene and is pref. 8-96 wt.%, esp. 8-92 wt.% of the total container contents. Pref. the pressure in the container is 3-3.5 bars at 20 deg.C.
 The filler is e.g. body spray, hairspray, room spray, shaving foam, insecticide or silicone. (3pp)

OREA D21 72452 Y/41 = US 4289-752
Copolymer or higher polymer of substd. (meth)acrylamide - used in hair treatment compsns., esp. hair setting lotions and nail varnishes
L'OREAL SA 12.07.76-LU-075371 (06.04.76-LU-074707)
A14 + P32 (A96) (15.09.81) *BE-853-252 A61k-07/11 + A61k-31/78
 13.11.78 as 959623 (+ 1.4.77-US-783632) (924RP)
 Hair setting lotion comprises in a hydroalcoholic soln. a copolymer obtd. by the polymerisation of (a) a water-insoluble monomer of formula
 $\text{CH}_2\text{:C(R1)CONH(R2)C(R3)(X)nR}$ (I)
 and (b) a water soluble monomer of formula
 $\text{R4CH:C(R5)(CH2)mCON(R1)zOH}$ (II)
 The copolymer has a mol.wt. of 1000-500,000 and is present in an amt. of 0.3-6 wt.% of the lotion.
 In the formulae R is 1-10C alkyl; R1-3 are each H or methyl; n is 0 or 1 and when n is 1, x is 0; R1 is H or methyl; z is 1-6C alkylene opt. substd. by 1-2 hydroxymethyl gps.; m is 0 or 1; when m is 0, R4 is H or -COR6 (where R6 is OH or -NHR7; R7 is H or -Z-OH) and R5 is H or -CH3; and when m is 1, R4 is H and R5 is -COR6.
 The novel copolymers with a base of N-alkyl (meth)acrylamide and also useful in lacquers, nail polish etc. They have improved brilliance and good adherence etc. (9pp)

MONS D21 73163 A/41 = US 4289-753
Dental plaque inhibiting compositions - contg. bis-carboxy-alkoxy-butane di:carboxylic acid deriv. e.g. 2,3-bis-carboxy-methoxy-butane di:carboxylic acid tetra:sodium salt
MONSANTO CO 04.04.77-US-784188
B05 E17 (15.09.81) *DE2814-298 + A61k-09/68
 04.04.77 as 784188 (924RP)
 Oral compsn. for inhibiting formation of dental calculus, comprises (1) a bis(carboxyalkoxy) butanedioic acid cpd. of formula (I) and (2) a suitable carrier. In (I) each R is H or lower alkyl. The compsn. is suitable for oral hygiene prods. and chewing gums.
 Pref. oral compsn. is toothpaste having a pH of 4-11, the concn.

of (I) being 0.1-5 wt.% of the compsn. (I) may be used in the form of alkali metal or ammonium salts. Typical toothpaste contains 31.58 pts.wt. water, 6.25 pts.wt. sorbitol, 0.12 pts.wt. saccharin, 39 pts.wt. Ca pyrophosphate, 18 pts.wt. glycerine, 0.4 pts.wt. Na alkyl (coconut) sulphate, 0.75 pts.wt. Na coconut monoglyceride sulphonate, 1.15 pts.wt. Na CMC, 0.40 pts.wt. Mg Al silicates, 0.85 pts.wt. flavouring and 1 pt.wt. BCMBDA. The compsn. has a pH of 5.9. (5pp)



RICH- ★ D21 73604 D/40 ★ US 4289-754
Mouth-wash contg. fluoride cpd., carrier - and alkali metal or ammonium zinc citrate

RICHARDSON-VICKS IN 03.11.80-US-203520

B05 E12 (E34) (15.09.81) A61k-07/16

03.11.80 as 203520 (985NS)

A mouthwash contains 0.01-1.0 wt.% of an anticaries effective fluoride cpd. (I), 0.1-15 wt.% ammonium or alkali metal zinc citrate and a carrier. Pref. (I) is sodium fluoride, potassium fluoride, stannous fluoride or sodium monofluorophosphate. The citrate is pref. sodium zinc citrate and is present in amt, 0.2-5.0, esp. 0.5-2.0 wt.%. The carrier is pref. 5-40 wt.% EtOH 0-20 wt.% humectant, 0-12 wt.% surfactant, 0-0.5 wt.% sweetener, 0-0.3 wt.% flavouring and balance water.

The Zn cpds. are useful for controlling calculus but are less astringent than Zn chloride and so the compsn. has improved anti-odour activity c.f. compsns. contg. Zn chloride. They also

have higher aq. solubility than Zn citrate and do not present any chemical incompatibility problems with the fluoride salt. (4pp)

RICH- ★ D21 73605 D/40 ★ US 4289-755
Stable mouth-wash contains zinc citrate, sodium fluoride - alkali, a carrier and citric acid to solvate the citrate

RICHARDSON-VICKS IN 03.11.80-US-203634

B05 E12 (E34) (15.09.81) A61k-07/16

03.11.80 as 203634 (985)

Mouthwash compsn. contains 0.1-15 wt.% zinc citrate; 0.01-1 wt.% sodium fluoride; citric acid to solvate the Zn citrate; alkali to pH 6.0-7.2; and a carrier. The carrier is pref. (by wt.) 5-40% EtOH, 0-20% humectant, 0-12% surfactant, 0-0.5% sweetener, 0-0.3% flavouring and balance distilled water.

Pref. the citric acid is present in amt. 1.5-10, esp. 2.5-3.5 partic. 2.76 moles per mole Zn citrate. The alkali is pref. an alkali metal or ammonium hydroxide esp. NaOH.

Zn citrate is useful for controlling dental calculus and mouth odour and is less astringent than Zn chloride and so (i) does not reduce anti-odour activity, (ii) is not chemically incompatible with NaF. (3pp)

See Also

D13 J56014936

D13 US4289700

D23 SU794018

D23 US4289660

D22: BANDAGES; DRESSINGS

IPOS- ★ D22 D/40 ★ AT 8004-386
Moulded plaster of paris bandage for upper thigh

IPOS GES PROTHESEN 29.08.80-AT-004386

P32 (15.09.81) A61f-13/04

LOCA- ★ D22 71811 D/40 ★ CA 1107-411
Absorbent bed pad - has absorbent fill centrally between absorbent top and impermeable bottom sheets

LOCATION COUCHES HO 22.09.78-CA-311891

P27 P33 (18.08.81) A47g-09/02 A61g-07/04

22.09.78 as 311891 (1358AT)

Pad has an absorbent sheet covering fibrefill or needle punched synthetic absorbent material in a central area to which the sheet is stitched and which is sandwiched between the sheet and an impermeable under-sheet stitched to the upper only at the periphery.

The top sheet is pref. of cotton and the impermeable sheet is of latex bonded to cotton. The stitching pref. provides nine equal area squares in the central area holding the sandwiched material, and this area is spaced from the periphery. The pad can absorb and dissipate an increased amt. of urine while minimising skin irritation and protecting the mattress. (7pp)

FARF ★ D22 71816 D/40 ★ DD -149-302
Long-acting biocidal agents for use in water - consisting of PVC or its copolymer contg. PVC soluble substance, water-soluble substance and an active substance e.g. tri-butyl-tin oxide

VEB CHEMIEKOMB BITT 03.03.80-DD-219393

A97 C03 E12 (D15) (08.07.81) A01n-25/10 A01n-55/04

03.03.80 as 219393 (280RH)

New long-acting agents for combatting undesired and injurious organisms in natural and artificial waters consist of homo- or copolymers of vinyl chloride with the addition of 15-30% substances dissolved in the PVC (pref. carboxylic acid esters or phosphates), 0.5-20% (pref. 2-15%) water-soluble substances (pref. inorganic salts) and 1-20% (pref. 2-10%) active substances (pref. tributyl-tin cpds.). Active substance combinations may be used in a concn. of 0.5-5% (pref. 2-5%).

Used for control of organisms such as bacteria, algae, fungi and snails in aqs. systems. The agents have a prolonged duration and broad spectrum of activity, use economically favourable polymers, use simple technology, and have minimal pollution potential. (15pp)

REMM- ★ D22 71864 D/40 ★ DE 3007-882
Fungicidal timber preservative also having insecticidal activity - contg. addn. cpd. produced by heating penta-chloro-phenol and dehydroabietylamine with phthalate resin

REMMERS CHEM GMBH 29.02.80-DE-007682

A05 C05 P06 14931 04 08 81 A01n 41

insecticidal activity contain the prod. obtd. by heating pentachlorophenol, dehydroabietylamine and a phthalate resin to at least 60 deg.C.

The new prod. is pref. produced by heating the components to 60-90 deg.C. The phthalate resin is pref. one obtd. by simultaneous esterification and polycondensn. of polyvalent alcohols (e.g. glycerol, trimethylolpropane, pentaerythritol) with polycarboxylic acids or polycarboxylic acid anhydrides (e.g. phthalic anhydride, isophthalic anhydride), opt. in the presence of naturally occurring monocarboxylic acids and/or other monocarboxylic acids. The new agents pref. additionally contain an insecticide.

In comparison with the known cpd. dehydroabietylamine pentachlorophenolate, the new prod. has improved solubility in usual solvents and causes less mucous membrane irritation. The new prod. does not crystallise out on the timber surface, and less energy expenditure is required for its prodn. Based on pentachlorophenol content, the new prod. is approx. twice as active as dehydroabietylammmonium pentachlorophenolate against timber-destroying fungi. (9pp)

HENK ★ D22 71912 D/40 ★ DE 3009-543
Deodorant cosmetic compsn. e.g. sprays and sticks - contg. alpha-branched alkanolic acid derivs. and opt. antioxidant

HENKEL KG AUF AKTIEN 13.03.80-DE-009543

E19 (24.09.81) A61k-07/32

13.03.80 as 009543 (200BZ)

Deodourising cosmetic compsns. contain, as active ingredient, an alpha-branched alkanolic acid deriv. having formula

$\text{R}_1\text{R}_2\text{R}_3\text{-C-C(=X)Y, (I)}$

(where R₁ is linear 1-12C alkyl or -C(=X)Y; R₂ is linear 1-5 1-6C alkyl; R₃ is H or linear 1-6C alkyl; X is -O-, Y is -OH, OR₄, -NR₅R₆; R₄ is 1-10C alkyl or aralkyl; R₅ and R₆ each is H, 1-12C alkyl, 2-4C hydroxyalkyl, alkoxyalkyl, aryl or aralkyl, or, together with the N atom R₅ and R₆ form a heterocyclic ring. The -C(=X)Y gp. can also be a nitrile gp.).

(I) can be used in powders, sticks, creams, roll-ons or esp. sprays. Body-odour is suppressed without side-effects.

The cosmetic compsns. contain 0.1-5 (0.5-2) wt.% (I) and pref. also 0.01-1 (0.05-0.5) wt.% anti-oxidants. (14pp)

HENK ★ D22 71913 D/40 ★ DE 3009-544
Deodorant cosmetic compsns. e.g. sprays - contg. aromatic carboxylic acid derivs. having anti-acne properties and pref. antioxidants

HENKEL KG AUF AKTIEN 13.03.80-DE-009544

E14 (E13) (24.09.81) A61k-07/32

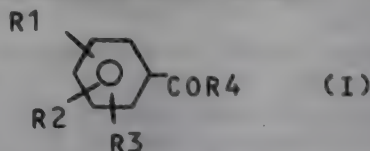
13.03.80 as 009544 (200BZ)

Deodourising cosmetic compsns. contain, as active ingredients, aromatic carboxylic acid derivs. having formula (I) (where R₁ is

naphthalene ring. R4 is 1-10C alkoxy, aralkoxy or -NR5R6. R5 and R6 each is H, 1-12C alkyl, 2-4C hydroxyalkyl, alkoxyalkyl, aryl or aralkyl, and R5 and R6 together with the N atom can form a heterocyclic ring).

The cosmetic compsns. contain 0.1-5 (0.5-2) wt.% (I) and pref. also 0.01-1 (0.05-0.5) wt.% anti-oxidants.

(I) can be used in deodorant powders, sticks, roll-ons and esp. sprays. (I) are effective deodorants and can also be used for the prophylaxis or treatment of acne. (16pp)



HENK ★ D22 71914 D/40 ★ DE 3009-545
Deodorant cosmetic compsn. e.g. spray - contg. multiple branched alkanolic acid amide deriv. and pref. anti-oxidant

HENKEL KG AUF AKTIEN 13.03.80-DE-009545

E19 (24.09.81) A61k-07/32

13.03.80 as 009545 (200BZ)

Deodourising cosmetic compsns. contain, as active ingredient, multiply branched alkanolic acid amides having formula

R1R2R3C-(CH2)n-CONR4R5 (I)

(where R1 is branched or linear 1-6C alkyl; R3 is H or branched or linear 1-6C alkyl; n is 0 or 1; provided that the acyl gp. contains 6-16C and that branching occurs in 2 or more positions of at least one main constituent. R4 and R5 each is H, branched or linear 1-8C alkyl, cycloalkyl, aralkyl or aryl or R4 and R5 together with the amide-N form a heterocycle).

The deodorants contain 0.1-5 (0.5-2) wt.% (I) and pref. also 0.01-1 (0.05-0.5) wt.% anti-oxidants.

(I) are used in deodorant powders, sticks, roll-ons and esp. sprays. (I) suppress body-odour, are odourless and cause no side-reactions. (15pp)

HENK ★ D22 71915 D/40 ★ DE 3009-547
Deodorant cosmetic compsns. e.g. sprays and sticks - contg. 2-aryl-indole deriv. or its salt and opt. antioxidant

HENKEL KG AUF AKTIEN 13.03.80-DE-009547

E13 (24.09.81) A61k-07/32

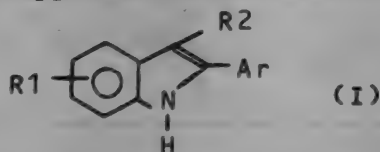
13.03.80 as 009547 (200BZ)

Deodourising cosmetic compsns. contain, as active ingredient, 2-aryl-indoles having formula (I): (where R1 is H, 1-4C alkyl, lower alkoxy or halogen; R2 is H or 1-4C acyl and Ar is Ph substd. by 1-4C alkyl or alkoxy, an amino- or guanidine gp. or halogen) or their salts with non-toxic inorganic or organic acids.

The compsns. contain 0.1-5 (0.5-2) wt.% (I) or its salts and opt. also 0.01-1 (0.05-0.5) wt.% anti-oxidants.

(I) and its salts can be used in powders, sticks, creams, roll-ons and esp. sprays.

Body-odour is suppressed without side-effects. (12pp)



INTE- D22 33038 C/19 = EP G010-171
Laminated foil for stomatic excretion disposable bags - has inner waterproof layer, central water soluble polymeric layer and outer kraft paper or cellulose layer

INTERMEDICAT GMBH 21.09.78-CH-009887

A96 P33 P73 Q34 (26.08.81) *EP-10-171 A61g-09 B32b-07/02 B32b-27/06 B65d-65

19.09.79 as 103507 (39AS) (G) DE1930938 DE2637260 FR2171507 US3536563 E(AT BE CH DE FR GB IT LU NL SE)

Patients, who have undergone an ostomy (colostomy, ileostomy, ureostomy) and are estimated to number 100000 in Germany alone, have to use a bag for excreta or urine. A new material for such bags which disintegrates in an aqueous medium, is laminated. The first (inner) layer is 2-20 (3-8) mmicrons thick and is water insoluble, i.e. a thermoplastic (polyethylene) foil, hot melt layer or waterproof paper. The second layer is 10-100 (20-40) mmicrons thick, water soluble and made of polyvinyl alcohol or partly saponified polyvinyl acetate. The outer layer is 30-150 (40-100) mmicrons thick, hydrophilic and consists of Kraft paper.

The outer layer becomes detached by soaking in the W.C. bowl and the middle layer dissolves. The thin innermost layer is then lacerated when it is flushed away, thereby eliminating stoppages by the conventional PVC bags. (7pp)

ICIL ★

D22

72048 D/40 ★ EP --36-055

Protecting aq. media from microbial fouling - using 1,3-di:acetoxy-2-bromo-2-nitro-propane

IMPERIAL CHEM INDS LTD 31.01.80-GB-003232

E16 F09 (D15) (23.09.81) A01n-37/12 C02f-01/50 D21c-03

18.12.80 as 304602 (367HM) (E) No-Citns. E(BE CH DE FR GB IT LI NL SE)

Aq. media are protected from attack by microorganisms by adding 1,3-di:acetoxy-2-bromo-2-nitropropane (I). (I) is pref. added periodically in an amt. of 1-1000 ppm.

In an example, synthetic white water contg. (a) no additive, (b) 500 ppm of (I) or (c) 500 ppm of (II) was inoculated with 1% of an 18-hr culture of *Enterobacter cloacae*. The cell count after 1 hr was (a) 18,000,000, (b) less than 10, (c) more than 300,000.

(I) is esp. useful for control of algae, bacteria and fungi in industrial cooling water, paper mill liquor and swimming baths. It is more effective than 2-bromo-2-nitropropane-1,3-diol (II) and its higher alkanolate esters. (14pp)

PHAR/ ★

D22

72158 D/40 ★ EP --36-307

Appts. for controlled discharge of liquid into second liq. - using bellows positioned in first liquid controlled by level of second liquid, esp. for water sterilisation

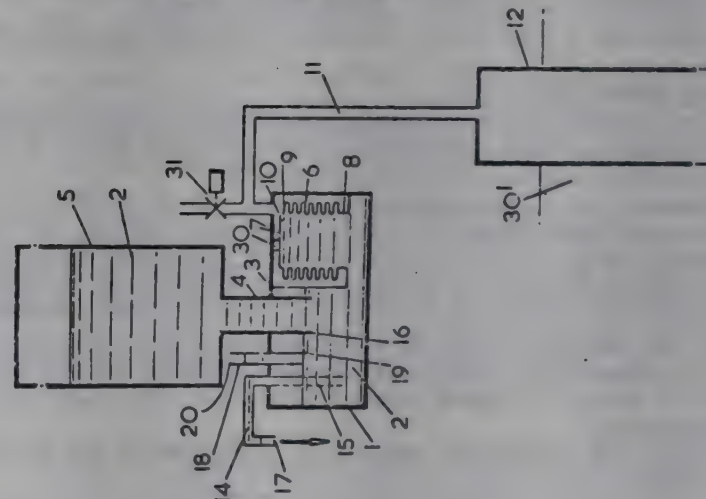
PHARAOH P L G 14.03.80-GB-008653

S02 (23.09.81) C02f-01/76 G01f-11/08

13.03.81 as 301057 (295RP) (E) No-Citns. E(AT BE CH DE FR IT LI LU NL SE)

An appts. controls the discharge of a first liquid into a second liquid. The liquids are held in separate tanks with a liquid outlet from the first tank supplying liquid to the second tank. A displacement member positioned in the first tank is movable in response to a change in liquid level in the second tank to displace a predetermined quantity of liquid from the first tank, through the liquid outlet to the second tank. Pref. the displacement member is flexible, or expansible and may comprise a bellows.

The appts. may be used for sterilising water and used to dispense measured quantities of the sterilising agent to a large tank of untreated water. There is no danger of backflow from the second to the first tank. (17pp Dwg.No.1)



ANIO-

D22

62734 D/35 = EP --36-339

Portable aerosol spray unit for disinfecting hospital areas etc. - discharges spray mist via exhaust baffles which release only fine micro-droplets

LABS ANIOS SARL 14.01.80-FR-001134

P34 P42 (23.09.81) *FR2473-315 A61l-09/14 B05b-07/30

13.01.81 as 400039 (448MR) (F) FR-991752 FR1568295 FR1047514 FR-940569 FR2026337 FR-964722 1.Jnl.Ref E(AT BE CH DE GB IT LI LU NL SE)

A tank of liq. contains a partly immersed centrifugal spray rotor turning on a vertical axis. The tank is covered with a hood having an outlet chimney at the top contg. a coaxial exhaust fan rotor.

The inside of the chimney wall is now provided with angled baffle blades. These allow only the finest micro-droplets to leave the chimney, all larger ones being trapped and returned to the tank. (15pp)

MAZN ★

D22

72209 D/40 ★ FR 2476-441

Poly para-hydroxy styrene(s) - have antifungal and antibacterial properties, for treatment of wood, paper, oils, paints etc.

MARUZEN OIL KK 27.02.80-JP-024544

A13 B04 C03 (A96 A97) (28.08.81) A01n-31/08 A01n-41/02 A01n-57/10

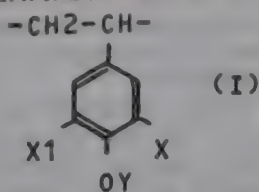
27.02.81 as 004025 (520PW)

Antifungal and antibacterial agents containing as active ingredient, poly(p-hydroxystyrene), a derivative, or a salt of this, having a molecular weight of at least 1500, are new

The agents are used in treatment of wood, paper paste, water, soluble oils, paints, adhesives, glues, starch, foodstuffs,

medicaments and cosmetics. Low mammalian toxicity, causes no pollution problems, non-volatile, and does not migrate.

Pref. polymers have at least 12 units of formula (I) where X and X1 are each H, halo or SO₃H; Y is H, an alcohol residue except OH or an acid residue or a corresponding salt. It may be a copolymer of a p-hydroxystyrene with another vinyl monomer and pref. has a mol. wt. between 2000 and 5000000. (30pp)



SQUI D22 89643 A/50 = GB 1598-966
Adhesive used partic. for abdominal stoma - contains guar or carob gum with contact adhesive and fibrous reinforcing agent
SQUIBBE R & SONS INC 08.06.77-US-804673
A81 G03 P32 + P34 (A18 A96) (30.09.81) *BE-867-937 C081-05 C09j-03/02

16.05.78 as 019854 (974TM)

Novel adhesive compsns. for medical purposes comprise a homogeneous mixt. of (a) 15-40 wt.% guar gum and/or locust bean gum; (b) 0-25 wt.% pectin and/or gum karaya; (c) 40-60 wt.% pressure sensitive adhesive component and (d) a cohesive strengthening agent.

Components (a) and (b) total 20-55 wt.%. Component (d) is either 2-12 wt.% inert natural or synthetic fibre material or 10-30 wt.% of finely divided cellulose, water-insoluble cross-linked dextran, water-insoluble cross-linked NaCMC or water insoluble starch/acrylonitrile graft copolymer.

Compns. are used for fixing appliances to abdominal stoma. (8pp)

SQUI D22 89644 A/50 = GB 1598-968
Formable compsn. used as protective layer for stoma in surgery - comprises mineral oil and premix contg. adhesive, gum and/or reinforcing agent

SQUIBBE R & SONS INC 08.06.77-US-804692

A96 G04 P32 + P34 (A18) (30.09.81) *BE-867-939 C081-05 C09j-03/02

16.05.78 as 019855 (974PW)

Medical compsns. have a consistency which permit them to be shaped by hand. They comprise a homogeneous mixt. of mineral oil and a premix at a wt. ratio of 1-10:3.5-10.

The premix is a homogeneous mixt. of (i) 40-60 wt.% of a pressure-sensitive adhesive component and (ii) up to 60 wt.% hydrocolloid gum(s) (I) or up to 60 wt.% cohesive strengthening agent(s), (II) or 40-60 wt.% of their mixt. (I) is up to 40 wt.% guar gum and/or locust bean gum and 0-25 wt.% of pectin and/or gum karaya. (II) is finely divided cellulose, finely divided water insoluble crosslinked dextran, finely divided water insoluble NaCMC or finely divided water insoluble starch-acrylonitrile graft copolymer.

Compns. are used for mounting appliances on abdominal stoma. (10pp)

DUIN ★ D22 72347 D/40 ★ GB 2072-188
Algicidal N,N-diethyl-N'-aryl-ethylene-di:amine(s) - having low toxicity to fish

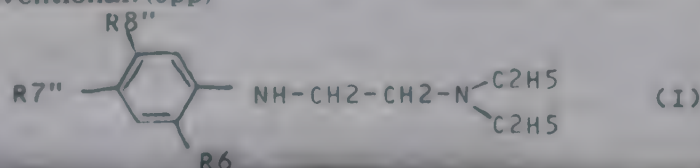
DUPHAR INT RES BV 00.00.81-GB-009842 (26.07.78-NL-007908)

C03 E14 (30.09.81) A01n-33/06 C07c-87/62 C07c-93/14 C07c-147/12

23.07.79 as 009842 /81 Div.ex 7925573 (476RP)

N-Aryl-N',N'-diethyl-ethylenediamines of the formula (I) and their salts are new. R8 and R6 are each H, Cl or methyl; but if R8 is H or methyl, R7 is methyl, and if R8 is Cl, R7 is F or if R6 and R8 are both H, R7 is in addition R7 is 2-10C alkyl, trifluoromethyl, trifluoromethoxy, trifluoromethylsulphonyl, cyclohexyl, p-chlorophenoxy or p-chlorophenyl-(1-2C alkyl).

(I) are algicides with low toxicity towards other organisms living in water. Thus (I) in which R7 is methyl and R8 and R6 are each H is completely non-toxic to guppies after 96 hours when present at a concn. of 1mg./l. (I) in which (a) R7 = R8 = R6 = methyl and (b) R7 is trifluoromethyl and R8 = R6 = H in particular have strong algicidal activity and low toxicity. Compns. contg. (I) are conventional. (9pp)



TOCO-★ D22 72382 D/40 ★ GB 2072-3
Removing adherent contamination from contact lenses - by soaking with soln. contg. hypohalite

TOYO CONTACT LENS 23.02.80-JP-021077

E36 P81 (30.09.81) G02c-13

12.02.81 as 104366 (955RH)

Contaminants on the surface of contact lenses are removed by immersion in a soln. contg. a salt of a hypoalogenous acid.

The treatment removes even proteinaceous deposits that are left by other treatments.

The soln. may contain alkali or alkaline earth hypochlorite hypobronites or hypodites. Hypobronite may be prepf. in situ by reaction of the corresp. bromide and an active chlorine source e.g. Na salt of N,N-dichlorotaurine, Ca hypochlorate etc. The concn. of the soln. may be 1-20,000 ppm, and treatment time mins. -24 hrs-1-50 ppm and 3-24 hrs is pref. The compsn. may be provided in the form of a soln, as a concentrate that is diluted, or as a tablet, or powder which is dissolved in water. Treated lenses may be immersed in a soln. of reducing agent e.g. thiosulphate salts ascorbic acid, reducing sugars, to destroy residual hypohalite. (5pp)

TABA/★ D22 72480 D/40 ★ J5 6102-9
Air purifying system which uses cleaning liq. - contained in one half of two-compartment tank divided by wall extending down liq. surface

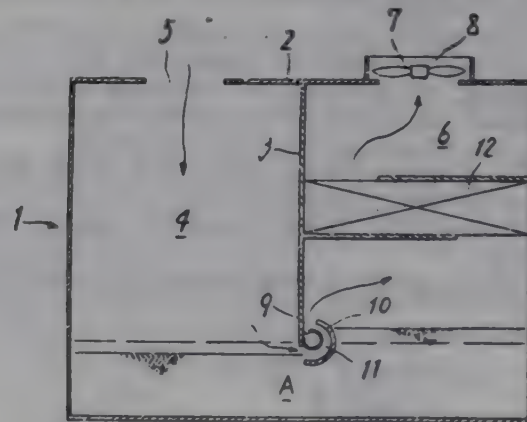
TABATA T 22.01.80-JP-006219

J01 Q74 (17.08.81) B01d-47/02 B01d-53/18 F24f-01/02 F24f-03/16

22.01.80 as 006219 (26DH)

Device is claimed for deodourising or pasteurising dirty air by using a cleaning liq. contained in a tank. The tank is partitioned by a vertical wall into two chambers; one having an air inlet at the top and the other having an air outlet provided with a suction fan. The lower end of the vertical wall extends down to the surface of the cleaning liquid.

A round pipe is horizontally attached at the lower end and is covered with an arched cover located at the other chamber having the outlet, so that the air is mixed with the liquid in the space defined by the pipe and cover and the mixture is guided into a dessicator case located in the other chamber. The air is effectively contacted with the cleaning liq. (2pp)



MITO★ D22 72484 D/40 ★ J5 6102-4
Detecting life of absorbing agent in deodorisation appts. - using paper capable of changing colour on reaction with malodorous components

MITSUBISHI HEAVY IND KK 22.01.80-JP-006139

J01 (17.08.81) B01d-53/34

22.01.80 as 006139 (96RH)

Detecting age of absorbing agent mounted within absorption-type deodorisation appts. comprises applying salt capable of changing colour by reaction with malodorous components in gas to be treated on a filter paper or membrane, passing the gas sucked from a higher stream than the outlet of treated gas through the applied filter paper or membrane, and detecting the age residual life of absorbing agent by colour change/salt analysis.

Process is esp. suitable for deodorisation appts., treating gas contg. NH₃ and hydrogen sulphide. (6pp)

NISY★ D22 72511 D/40 ★ J5 6103-
Non-peeling plaster - comprising, as base, a water absorbent resin such as saponified starch-acrylonitrile graft copolymer
NIPPON SYNTH CHEM IND 18.01.80-JP-005147

A96 (A14) (18.08.81) A61k-09/70 A61k-47

18.01.80 as 005147 (42KB)

A plaster (I) consists of base-material of a resin (II), which absorbs a large amt. of water. Examples of (II) are saponified starch-acrylonitrile graft copolymer or methacrylonitrile graft copolymer.

etc. (II) absorbs water in an amt. of 30-50 times its wt. For prepn. of (I), (II) is mixed with 50-500 wt.% of water and the mixt. is kneaded. The agent such as kaolin, bentonite, synthetic aluminium silicate, talc, etc. and medical component such as peppermint oil, salicylic acid ester, etc. are mixed. Other components that are added in other known plaster may be mixed in (I).

The plaster does not dry fast and peel off easily, and does not become fluid or give sticky feeling. (2pp)

NITL ★ D22 72513 D/40 ★ J5 6103-117
Stable base material for plaster - comprises copolymer prepd. from (meth)acrylic acid ester and vinyl ester or vinyl monomer using azo cpd. as polymerisation initiator

NITTO ELECTRIC IND KK 19.01.80-JP-004695

A96 (A14) (18.08.81) A61k-09/70 A61k-47 C08f-220/10

19.01.80 as 004695 (42AS)

Copolymer (I) prepd. by copolymerisation of methacrylic acid ester (II) or acrylic acid ester (III), and vinyl ester (IV) or vinyl monomer (V) having functional gp., using azo-cpds. (VI) as polymerisation initiator, is new.

(I) is used as base material for plasters. Decompsn. of pharmaceutical components mixed in the base material by the addn. of stabiliser, antiseptic or other additives is prevented. (I) is stable even at high humidity and temp.

(IV) include vinyl acetate, styrene, methylstyrene, vinyl propionate, etc. Pref. (V) include (meth)acrylic acid, (meth)acrylamide, 2-hydroxyethyl(meth)acrylate, dimethyl aminoethyl(meth)acrylate, acrylonitrile, etc. Pref. (VI) include azo-bis-isobutyronitrile, diazomethane, diphenyldiazomethane, methyl phenyl diazomethane, etc. (4pp)

NISY ★ D22 72535 D/40 ★ J5 6103-170
Germicidal 2-piperidino-3-substd. benzoyl propionic acids - obtd. by reacting 3-substd. benzoyl acrylic acid with piperidine

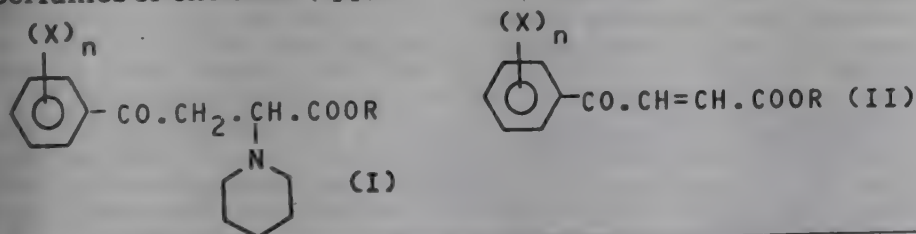
NIPPON SYNTH CHEM IND 18.01.80-JP-005148

C02 E13 (18.08.81) A01n-43/40 C07d-295/14

18.01.80 as 005148 (75KB)

2-Piperidino-3-substd. benzoylpropionic acids of formula (I) (where X is halogen, alkyl, alkoxyl, nitro or hydroxyl, n is an integer of 1-5, and R is H, lower alkyl, or lower substd. alkyl) are new. Prepn. of (I) comprises reacting 3-substd. benzoylacrylic acid of formula (II) with piperidine.

(I) can be used for any industrial prods. which require protection from germs or moulds, and they can be used together with any other germicides, anti-mould agents, surfactants, perfumes or chelates. (9pp)



AGEN ★ D22 72696 D/40 ★ J5 6104-670
1,2-Polybutadiene heparinised material - resistant to blood-coagulation

AGENCY OF IND SCI TECH 23.01.80-JP-007336

A96 B04 P34 (A12) (20.08.81) A61m-01/03 C08f-08/34

23.01.80 as 007336 (117AT)

1,2-polybutadiene-based heparinised blood coagulation-resistant material is obtd. by dipping 1,2-polybutadiene or 1,2-polybutadiene-based blend, contg. at least 80% 1,2-bond, in a tert. amine contg. dialkyl or dialkanolamino gp. or its soln., then treating it with a low-temp. plasma in an inert gas atmos. so as to cause the tert. amine to combine with the surface of the material in a low mol. or polymerised state, followed by conversion of the tert. amine into a hydrohalogenated salt, and lastly is subjected to a reaction with a heparin salt.

The heparin salt used includes the sodium salt of heparin, the tert. amine used is pref. dimethylaminoethylmethacrylate, diethylaminoethylmethacrylate, 2-diethylaminoethanol, etc.

The 1,2-polybutadiene-based heparinised material has a great resistance to coagulation of blood when being brought into contact directly with the blood during the surgical treatment, etc., as well as increased sanitary safety. (5pp)

NIKK- ★ D22 72697 D/40 ★ J5 6104-672
Blood cleaner sterilisation - by swelling cellulosic semipermeable membrane of cleaner with aq. soln. of polyhydric alcohol and heat-sterilising

NIKKISO KK 23.01.80-JP-005663

E17 P34 (20.08.81) A61l-02/04 A61m-01/03

23.01.80 as 005663 (117HM)

by pre-swelling a cellulosic semipermeable membrane used in the blood cleaner with a 3% or more aq. soln. of a polyhydric alcohol, e.g., up to 4C diols or triols, e.g. ethylene glycol, glycerine, propylene glycol, etc., and then heat-sterilising at 90-150 deg.C.

This method effectively sterilises the blood cleaner without damaging the cellulosic semipermeable membrane, i.e. without lowering of the permeability of the membrane. Also, since the blood cleaner is not filled with liq. the delivery and handling of the blood cleaner is easy and no washing is required before and during use. (4pp)

KATA- ★ D22 72746 D/40 ★ J5 6104-804
Industrial sterilisation process - comprises adding bis(trihalo or dihalo) sulphone and halo acetic acid ester

KATAYAMA KAGAKU KOG 26.01.80-JP-007971

C03 E16 (20.08.81) A01n-37/02 A01n-41/10

26.01.80 as 007971 (5AS)

Process comprises adding (a) bis(trihalo (or dihalo)methyl) sulfone and (b) haloacetic acid ester (XCH₂COO)nR (I) to the substance to be sterilised so that the total concn. of (a) and (b) is 0.5-1000 ppm and the weight proportion of (a):(b) is 5-95:95-5.

X is halo; n is integer 1-3; R is a gp. directly bonded to the group XCH₂COO- When n is 1, R is 1-18C alkyl, halo, hydroxyl, nitro, phenyl or 1-18C alkyl substd. with at least one -OR1 gp. (R1 is 1-6C alkyl opt. substd. with halo or phenyl). Where n is 2; R is 2-6C divalent opt. satd. linear hydrocarbyl. When n is 3, R is 3-6C opt. satd. hydrocarbyl.

Component (a) shows strong sterilising effect on bacteria and component (b) shows antibiotic activity on gram positive germs and Eumycophyta. By using (a) and (b) together most microbes can be sterilised by component (a) and then component (b) suppresses the multiplication of microbes. (8pp)

SHIF ★ D22 72932 D/40 ★ J5 6105-745
Gas medium reacting system - consists of appts. with tubes forming meandering passages within column contg. central tube contg. catalyst and heater

SHINMEIWA IND KK(URAY-) 29.01.80-JP-009769

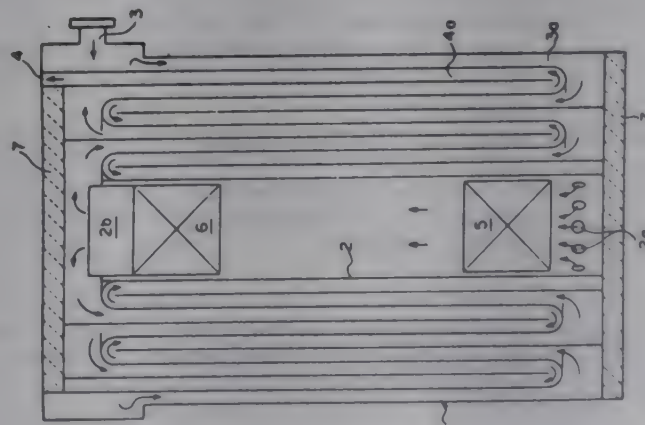
J04 (J01) (22.08.81) B01j-08/02

29.01.80 as 009769 (26DH)

Device is described for reacting a gas with a catalyst such as malodourous air. It comprises a column contg. a vertical central gas tube having a gas feed port at the lower end. The device is used for deodouring a gas, synthesising ammonia, methanol and hydrocarbons.

Annular tubes are coaxially arranged in a space between the column and vertical central tube to form a meandering passage in profile of the column. A heater is in a lower space of the central tube and a catalyst bed is located in an upper space of the same tube.

Thermal losses are low and a compact size is obtd. (2pp Dwg.No.1)



JAPC D22 02674 C/02 = J8 1038-129
Thickener for wet pack compsn. - comprises sodium polyacrylate and polyacrylic acid crosslinked deriva.

NIPPON SHOKUBAI KAGAKU 18.05.78-JP-058277

A96 B05 (A14 B07) (04.09.81) *J54151-118 A61k-09/70 A61k-47

18.05.78 as 058277 (69BZ)

The thickener comprises (A) Na polyacrylate where viscosity of 1 wt.% aq. soln. is more than 3,000 cps determined by Brookfield rotation viscometer (25 deg.C, 12 r.p.m.) and (B) polyacrylic acid cross-linked deriva. where viscosity of 1 wt.% of aq. soln. when the substance is 100% neutralised NaOH is more than 2000 cps determined by Brookfield rotation viscometer (25 deg.C 12 r.p.m.) in a ratio of 10-70 wt.% of (B) component to total amt. of (A) component and (B) component.

The compsn. has high viscosity, excellent excipient property and does not yield sags in high temp. or high moisture conditions.

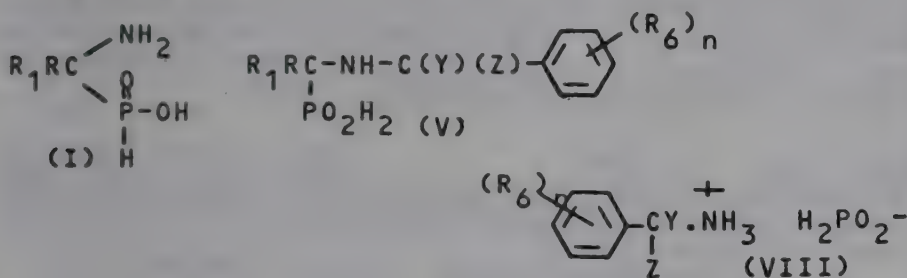
(J54151118) (5pp)

CIBA D22 82095 Y/47 = SU-795-484
Substd. (1)-amino-methane-phosphonous acid derivs. - useful as antimicrobials for in vivo and in vitro applications
CIBA GEIGY AG 21.05.76-GB-021000
B05 C03 E11 (10.01.81) *BE-854-843 C07f-09/48
09.06.78 as 484356 (GW)

Phosphonous acids of formula (I), their Zwitterionic forms salts with acceptable acids and bases, and all their optical isomers have been prep'd. In the formula, (R and R1 are H, D, lower alkyl, alkenyl or alkynyl, cycloalkyl, aryl, 3-7 membered heterocyclyl with 1 or more O, N or S atoms and opt. fused to an aromatic ring, lower alkyl substd. by 6-10C aryl or by 3-7 membered heterocyclyl, or R1 + R2 are together a 2-7C polymethylene opt. interrupted by an O, N or S atom. R1 and R cannot both be H.

Also new are the intermediates of formulae (V) and (VIII). In the formulae, Y is H, CH3 or (R7)n- substd. phenyl. Z is H, CH3 or (R8)n-substd. phenyl. R6, R7 and R8 halo or 1-3C alkyl or alkoxy, n is 0, 1 or 2 but if it is O, then Z and Y cannot be H).

(I) are antimicrobials effective in vitro against Gram negative bacteria and yeasts. They can be used to treat infections in animals, as antiseptics and to protect materials against microbial spoilage. In some cases they show a synergistic effect with other antibiotics such as rifampicin and trimethoprim. In an example, hypophosphorous acid and isobutylidenebenzylamine were reacted and the prod. deprotected with aq. HBr to give DL-1-amino-2-methylpropane-phosphorous acids. Bul. 1/7.1.81. (2pp)



GERA/ ★ D22 73398 D/40 ★ SU-796-348
Structures protection against fungal attack - by applying water or ethanol soln. of pyrocatechin

GERASIMENKO A A 26.03.79-SU-742459
E14 Q43 (15.01.81) E04b-01/72

26.03.79 as 742459 (1462WD)
Pyrocatechin is non-toxic to man and an effective fungistatic agent for protecting construction materials from damage by microorganisms, e.g. microscopic fungi.

In order to use it as a fungistatic agent for protecting constructions, 0.05% solns. of pyrocatechin in water or ethanol are made up. They are then applied by brush or sprayed on to the surfaces of the constructions to be protected. The solvent gradually evaporates, leaving the fungistatic substance on the uneven surface of the construction, which it protects from damage by microscopic fungi.

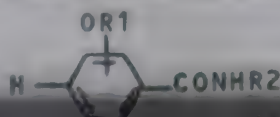
The use of this fungistatic agent suppresses the development of viable (active) microscopic fungi already present on the construction to be protected and also prevents their development should further spores or mycelium reach the surface of the construction. Bul.2/15.1.81 (2pp)

MINN ★ D22 73432 D/40 ★ US 4289-088
Sterilisation indicator for steam autoclave - with sprung member held in place by fusible mass of alkoxy-benzamide deriv.

MINNESOTA MINING CO 29.04.80-US-145214
A96 E14 S03 (A23 S05) (15.09.81) G01k-11/06

29.04.80 as 145214 (367KB)
Device for indicating attainment of sterility in a steam autoclave comprises a hollow housing whose internal cavity is accessible to steam and contains a sprung indicator held in the sprung position by a fusible material (I). When a given temp. is reached, (I) melts and releases the indicator, which is thus moved relative to the housing by the spring. Specifically (I) is a benzamide deriv. of formula (I) (where R1 is 1-4C alkyl and R2 is H or 1-4C alkyl).

The device provides a direct yes/no indication which is not open to subjective interpretation and is independent of the attitude of the device (vertical, horizontal, etc) over the temp. range commonly used for steam sterilisation (120-140 deg.C). (6pp)



MASO/ ★ D22 73434 D/40 ★ US 4289-122
Ankle movement control brace - with pivotally interconnected plantar and leg members with backward movement limited

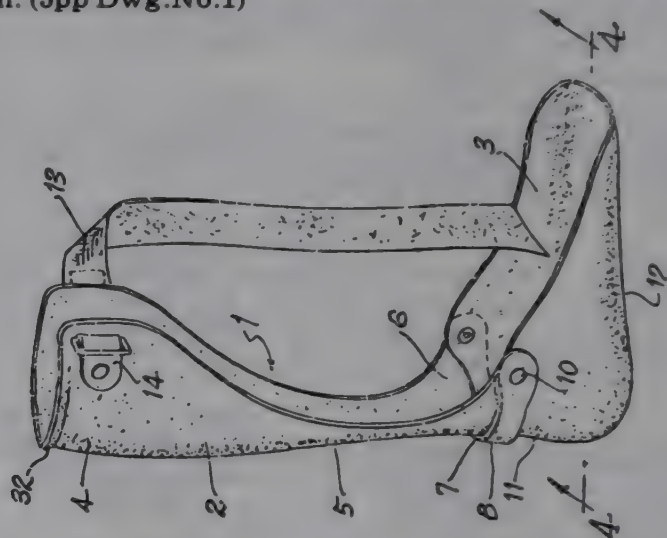
MASON R D F 23.04.79-US-032568

P32 (15.09.81) A61f-03 A61f-05/04

23.04.79 as 032568 (1358RH)

A brace has a plantar element(3) with an upward projection(11) to wrap closely around heel and ankle and a leg member(2) with a shank(5) from a top part(4) wrapping around the calf along the back of the leg to a broader lower end partially extending over the projection and both sides of the ankle.

The projection and broader lower end are pivotally secured together(10) at ankle level about the normal flexure axis of the ankle. The lower end has an outward projecting rim capping the projection upper edge when the member is at its max. backward position w.r.t. the element to limit such backward movement. Both member and element are of hard thin sheet material e.g. polypropylene, while the shank may be a narrower more flexible section. (5pp Dwg.No.1)



INTO ★ D22 73435 D/40 ★ US 4289-122
Polymeric sheets of silicone rubber - with fabric texture layer used as burn dressings

INT PAPER CO 26.06.79-US-052221 (24.11.75-US-634908)

A96 P32 P34 (A26) (15.09.81) A61f-13/06 A61f-15/*

26.06.79 as 052221 C.i.p 4175557 (+ 1.11.76-US-73567) (1473PW)

A synthetic burn dressing (A) comprises (1) a layer of 1mil (or less) thick cured, high-release, non-sticking silicone rubber, (2) a layer of cured silicone rubber joined to (1), having tensile strength and tear strength for a 25 mil thickness of at least 40 lbs/sq.in. and at least 20lbs/in. respectively and (3) a layer of fabric texture joined to (2). (1) and (2) together have a total thickness of 2 mils (or less) and form a very thin, pin-hole free non-porous membrane. (A) possesses physiological properties similar to those of human skin, has a water vapour phase transfer rate of 2-10 mg/hr.cm2, a 2-dimensional elongation (in each direction) of at least 100% and anti-microbial barrier layer properties. Layer (3) provides a reservoir for wound debris.

Layer (3) pref. is composed of a knit or woven sheet of continuous multifilament nylon strands of 70 denier, and has a w of at least 10 gm/sq.ft., a thickness of at least 20 mils, wettability, defined by a wetted area of at least 0.8 sq.cm., and a absorption time of 2 seconds or less. Silicone rubber of layer (1) has a thickness of 0.1-0.3 mil and a 180 degree peel strength of 4 (or less) gms/in. Silicone rubber of layer (2) has a thickness of 0.5-1.5 mils, a tensile strength and tear strength for a 25 mil thick cured film of at least 750 lbs/sq.in and at least 75lbs/in. respectively. Layers (1) and (2) have a total thickness of 0.5-1 mils. (21pp)

DAIL D22 57199 B/31 ★ US 4289-18
Liq. absorbing material for sanitary articles - consists of cellulose acetate fibres recovered from cigarettes and other fibres

DAICEL KK (FUJI) 05.12.77-JP-145886 (21.08.79-US-068534)

A96 F07 P32 (A18) (15.09.81) *J54078-892 A61f-13/16

21.08.79 as 068534 (1376JB)

Absorbent layer of a sanitary prod. consists of cellulose acetate fibres or a mixt. of cellulose acetate and cellulose fibres having an irregular cross-section and filament deriv. of less than 8.

The absorbent layer is sandwiched between covering and leakproof layers. The fibres are pref. crimped filament to opened homogeneously, and have a Y-shaped cross-section. (8pp)

ATA- D22 77643 B/43 = US 4289-581
Microbicide for industrial cooling water and paper pulp - contg. 5-di-chloro-1,2-dithiol-3-one, a polyoxyethylene, polypropylene thylene di:amide or alkylolamide surfactant and hydrophilic solven

KATAYAMA CHEM WORKS 11.04.78-JP-043697 (05.04.78-JP-040620)

A97 C03 F09 P34 (A25 D15) (15.09.81) *DE2913-593 A61k-31/36 C02f-01/50 D21d-03

3.03.79 as 022955 (965NS)

table microbicidal slimicide compsn. for industrial use comprises (a) 3-20 pts.wt. of 4,5-dichloro-1,2-dithiol-3-one as active ingredient, (b) at least 0.2 pts. wt. per 10 pts. wt. (a) of a surfactant, and (c) sufficient hydrophilic organic solvent to make 100 pts.wt. compsn. The compsn. is water-free. (b) is N,N,N'-polyoxyethylene polyoxypropylene -ethylenediamine or alkylolamide type nonionic surfactant, (c) is at least 1 of DMF, methyl cellosolve, phenyl cellosolve, diethylene glycol, (mono-methyl ether) and dipropylene glycol.

The compsns. are useful in pulp and paper mfg. processes and industrial cooling water systems. (6pp)

EEC D22 47511 B/26 = US 4289-696
Hydrocarbyl:sulphinyl-7-oxo-1-aza bi:cycloheptene derivs. - useful as antibacterials and beta-lactamase inhibitors

BEECHAM GROUP LTD 12.11.77-GB-047201

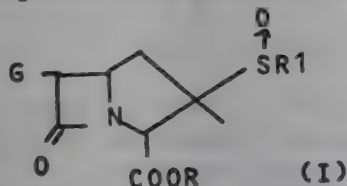
B02 C02 (15.09.81) *EP---2-564 C07d-487/04

02.80 as 120065 Div.ex 4223038 (+ 30.10.78-US-955598) (964WB)

beta-lactam derivs. of formula (I) are new. In (I), A is Cl, Br or I. 1 is 1-6 alkyl opt. substd. with OH, NH₂, 1-6C alkanoylamido benzoyloxy-carbonylamido or p-nitrobenzoyloxy-carbonylamido; phenyl opt. substd. by one or more of halo, 1-6C alkyl, 1-6C alkoxy, amino, 1-6C alkanoylamido, benzoyloxy-carbonylamido or p-nitro-benzoyloxy-carbonylamido. R is 1-6C alkyl, benzyl, p-trobenzyl, p-methoxybenzyl, phenacyl, p-bromophenacyl, 2,2-dichloroethyl, phthalidyl, phthalimido-methyl, alpha-hoxycarbonyl-oxyethyl or 1-6C alkanoyl-oxymethyl. G is H or alk(en)yl opt. substd. by OH, oxy methoxy carbonyl or opt. substd. phenyl.

(I) are used as antibacterial and beta-lactamase inhibitory agents. Daily dose is usually 2-5 mg/kg.

A specific cpd. is benxyl 3-chloro-7-oxo 3-phenylsulphinyl 1-zabicyclo (3.2.0)heptane-2-carboxylate. (44pp)



ATR D22 40016 C/23 = US 4289-728
sterilisation treatment esp. of spore forming microorganisms - using hydrogen peroxide and UV irradiation

NATIONAL RES DEV CORP (PEEL) 11.01.79-GB-001091

E38 P34 + Q31 (15.09.81) *BE-881-097 A61l-02/10 B65b-55/08

01.80 as 109317 (963RP)

sterilisation of food packing is effected by the synergistic action of UV irradiation and H₂O₂ soln., the UV being (mainly) of wavelengths below 325 nm and the H₂O₂ concn. being 0.01-10%. Pref. UV is (mainly) below 300 nm but at least 200 nm wavelength and has peak intensity below 325 nm. (esp. pref. wavelength is 254nm).

Method may be used to treat moulds, yeasts, bacteria, virus or protozoa, esp. where they are dairy contaminants. The microorganism is esp. B.subtilis or B.stearothermophilus. The H₂O₂ soln. is pref. heated e.g. to at least 85 deg.C during or after radiation. (6pp)

QUA-★ D22 73607 D/40 ★ US 4289-758
biocidal compn. esp. for topical use - contg. sodium poly:pectate, silver ion, glycerol and base to pH 7.2 to 7.8

AQUATAIN PARTNERSHI 18.08.80-US-178755 (16.05.74-US-470629)

A96 B05 E32 (E19) (15.09.81) A01n-59/16 C11d-03/48

08.80 as 178755 Div.ex.4184974 (+ 07.06.76, 11.03.77, 17.09.79-US-3622, 776776, 075979) (1248HM)

biocidal compn. comprises sterile distd. water (free from alkaline earth metal cations, halide ions and strong acid anions) contg. 100-400 p.p.m. Na polypectate (I), 13-250 p.p.m. Ag ion, 4-10% glycerol and water-soluble base (II) to maintain pH 7.2-7.8.

The compsn. has bacteriostatic and viricidal activities and it is suitable for topical appln., esp. for treating condyloma and tissue infected with Herpes virus and for preventing infection of tissue

by Staphylococcus aureus. It is also effective against Pseudomonas aeruginosa, Escherichia coli and Salmonella choleraesuis, and against bacteriophages 029 and 082, nwhich are DNA viruses. The compsn. is esp. useful as presurgery scrub and as a sterile lubricant for manual examination during labour and in delivery; it is useful for cleansing and preserving human corpses. Prepsn. contg. Ag cpds. have previously been used as antiseptics and for treating mastitis. Specific uses for such compsns. are described in US4267168 (Der.40042 D/22). (8pp)

AVTE-★ D22 73645 D/40 ★ US 4289-824
Surgical dressing or tampon comprising highly absorbent fibres - of alloy rayon contg. regenerated cellulose matrix with dispersed sodium carboxy methyl cellulose to increase fluid holding capacity

AVTEX FIBERS INC 05.10.79-US-082352 (11.06.76-US-696451)

A96 (A11) (15.09.81) D02g-03 D04h-01/58

05.10.79 as 082352 C.I.p4199367, 4136697 (+ 7.11.75, 22.4.77-US-629952, 790129) (AT)

Article, esp. a surgical dressing or tampon, comprises a highly fluid absorbent mass of alloy rayon staple fibres consisting of a matrix of regenerated cellulose and 10-40 pref. 15-35 wt.% of Na CMC (on wt. of cellulose), at least 75% of the carboxyl gps. in the CMC being in salt form. The fibres are 1.5-6 denier and carry less than 1% of a lubricating or protective finish. Fluid holding capacity is at least 5.5 cc/g fibre as measured by the syngyna test.

The lubricating or protective finish is pref. a nonionic polyoxy ethylene sorbitan monoester of a higher fatty acid and is used e.g. at 0.1-0.5%. The fibres are prepd. by adding CMC to viscose, spinning the mixt. into fibre form into an acid bath, e.g. contg. sulphuric acid, Na₂SO₄ and usually ZnSO₄ at 80-55 deg.C, washing to remove acid, desulphurising and treating with a lubricating finish. The fibres are suitably chemically crimped.

CMC with D.S. above 0.35 (0.4-1.2) may be used even though it is water-soluble, as it is prevented from going into soln. by the cellulose matrix. (4pp)

SCHM/ D22 70080 D/39 #WP 8102-516
Skin transplant pressure pad - with cut-out in lower foil- for bonding to skin and valve in upper foil for inflation

SCHMID E 11.03.80-EP-101233 (11.03.80-WP-D00025)

P32 P34 (17.09.81) *EP--35-583 A61f-13 + A61f-05/34 A61m-27

11.03.80 as D00025 (39BZ) (G) FR2382900 FR2252839 GB-641061 GB-115185 DE1491207 FR-910340 N(BR JP US) E(TG)

An inflatable pad, to exert pressure on large areas of skin which have been transplanted in plastic and reconstructive surgery, consists of two rectangular foils of latex or an elastic plastic material to suit the transplant which are joined at the periphery by a tight seam. The lower foil has a central cut-out, slightly larger than the transplant and is bonded by adhesive to the skin of the patient. The top foil includes a valve through which the pad can be inflated. The top is transparent for visual observation.

This prevents the sweating under the usual rubber pads. The new pad throws no folds and allows oxygen or a nutrient solution to be applied to the transplant. (17pp)

SCHM/ D22 70081 D/39 #WP 8102-517
Skin transplant pressure pad - made of two welded foils with stiff contoured plate on upper foil

SCHMID E 11.03.80-EP-101234 (11.03.80-WP-D00028)

P32 (17.09.81) *EP--35-584 A61f-13 + A61f-05/34

11.03.80 as 000028 (39NS) (G) US1526795 DE1915636 US2367690 DE1491207 N(BR JP TG US)

Pad to exert a pressure on large areas of transplanted skin consists of two foils, made of latex or an elastic plastic material, which are joined at the edges by an airtight welded seam. The top foil includes a valve for inflation with air or a liq., and a bonded stiff plate which resembles the curvature of the limb on which the transplant has been applied.

This stiff plate is also made of plastic material and is rigid and large enough to exert a uniform pressure on the transplant. This pad prevents folds from forming (which remain visible after complete healing). (13pp)

See Also

D15 EPG001436

D23: OILS; FATS; WAXES

VOIS/ ★ D23 71800 D/40 ★BE -888-911
Lowering the freezing point of essence of anise and anethole - using dewaxed deodorised natural prod. esp. terpene(s)

VOISIN M 22.05.80-LU-082480

E19 (D13) (16.09.81) A231 B01j C11b

21.05.81 as 888911 (597AS)

The process uses a deodorised dewaxed soluble natural prod. having a very low m.pt., which is miscible with anethole and alcohols acceptable in food. A food drink based on anise essence and alcohol contains the prod. of m.pt. about -20 deg.C in amt. sufficient to lower the freezing point of anethole to at least -4 deg.C. Pref. prods. are terpenes, sesquiterpenes, aldehydes and ketones.

Process avoids sepn. of anethole and also the need for special storage to overcome the possibility of sepn. Also a natural prod. is used which does not alter the taste. (8pp)

VOIS/ ★ D23 71801 D/40 ★BE -888-912
Stable aq. emulsions of essential oils for cosmetics and food - prepd. from oil, emulsifier and water, pref. with vegetable gum

VOISIN M 30.05.80-LU-082495

(D13) (16.09.81) A231 C11b

21.05.81 as 888912 (597AS)

The emulsions comprise at least 50-100 pts. of the oils, 0.5-10 pts. of at least one emulsifier, and water. They are prepd. by mixing the oil(s) (50-100 pts.) with 1-10% emulsifier, then diluting the mixt. (0.8-2 pts.) with water (100 pts.) followed by intense agitation.

Emulsions are partic. used in food and in cosmetics. Previously unknown, the aq. emulsions are perfectly stable, enhance flavour and also contain natural prods. making them suitable for dietetic use. (11pp)

UNIL ★ D23 D/40 ★BR 8101-355
Material and process for depositing perfume on surface

UNILEVER NV 11.03.80-GB-008239

(15.09.81) A61k-07/46 C11d-03/50

INFL D23 27500 Y/16 =DS 2643-062
Fragrant methyl hydroxyamyl-cyclohexene carboxaldehyde prepn. - by reacting acrolein and myrcenol with catalytic Lewis acid at low temp. (NL130477)

INT FLAVORS & FRAGR INC 14.07.76-US-705332 (07.10.75-US-620354)

E15 (24.09.81) *DE2643-062 C07c-45 C07c-47/38 C07c-69/02

24.09.76 as 643062 (+ 9.6.76-US-694391) (068HM)

3 and/or 4-(4'-methyl-4'-hydroxyamyl) delta 3 cyclohexene carboxaldehyde is prepd. by one of the following methods: (A) reacting acrolein with myrcenol in the presence of one or more of the Lewis acids ZnCl₂, SnCl₄, ZnBr₂, AlCl₃, and C₂H₅AlCl₂ at -20 - 100 deg.C and 0.9807-98.07 bar. The molar ratio of acrolein to myrcenol is 10:1 to 1:10 and the Lewis acid is present in an amt. of 0.2-10 wt.% based on wt. of reactants. (B) myrcaldehyde is hydrated while in contact with (a) lower fatty acid and p-toluene sulphonic acid (b) 30% aq. H₂SO₄ and tetrahydrofuran or dimethylformamide (c) 50% aq. H₂SO₄ and tetrahydrofuran (d) 65% H₂SO₄ and acetic acid (e) methane sulphonic acid and tetrahydrofuran (f) a sulphonated copolymer of styrene and divinylbenzene alone or with a lower fatty acid (g) an activated alumina adsorbent (h) a silico-phosphoric acid polymerisation catalyst, or (j) aq. HCl and a lower alcohol and (C) myrcaldehyde is hydrohalogenated with HCl or HBr and the prod. hydrolysed or first carboxylated and then hydrolysed. The prods. are useful in perfumes. PS (36pp)

STAG/ D23 14400 B/08 =DS 2736-357
Tall oil distn. with prod. temp. control - partic. in falling film evaporators with steam addn. to prevent anhydride formation

STAGE H 12.08.77-DE-736357

(24.09.81) *DE2736-357 C11c-01/10

12.08.77 as 736357 (068HM)

Degassed dehydrated and heated tall oil is treated to recover fatty and resin acids. The tall oil is evaporated to obtain a pitch residue and the fatty and resin acids obtained as overhead prod. sepd. in one or more stages into at least two main fractions. When the prod. temp. exceeds 250 deg.C a falling film evaporator is coordinated with the direct distn. stage to separate pitch using a propellant gas in an amt. of 0.2-0.36% based on the evaporated acids and with the following stage to obtain resin acids as bottoms distillate using a propellant gas in an amt. of 0.1-0.3%. based on the resin acids. The prod. temp. in each case is maintained below 250 deg.C (4-8/8pp)

STAG/ D23 14400 B/08 =DS 2759-
Tall oil distn. with prod. temp. control - partic. in falling film evaporators with steam addn. to prevent anhydride formation

STAGE H 12.08.77-DE-736357 (00.00.73-DE-352859)

(24.09.81) *DE2736-357 C11c-01/10

12.08.77 as 759846 Add to 2352859 Div.ex 2736357 (068HM)

Crude tall oil is degassed, dehydrated and deodourised. The crude oil, at a temp. of 190-210 deg.C is led through a falling film evaporator over which a concentrating column is arranged. Further treating of the crude oil follows with evaporation of prerunnings with the heat from the falling film evaporator and with a propellant gas being passed in countercurrent to the crude oil. The head of the concentrating column is regulated at 66.6 266.5 mbar, pref. 133.3 mbar at 51 deg.C and the concn. conducted with a reflux ratio of 3-8, based on the organic distillate. Propellant gas is added in an amt. of 5-15% of the total feed. PS (7pp)

HENK D23 02158 C/02 =EP G006-
13,15-Dioxabicyclo-(10,5,0)-heptadecane cpds. - used perfumes with amber note

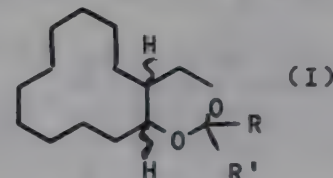
HENKEL KG AUF AKTIEN 26.06.78-DE-827979

E13 (26.08.81) *EP---6-572 A61k-07/46 C07d-321/10 C11b-09

26.06.78 as 102031 (068AS) (G) CH-435521 CH-474567 CH-5304 DE2550610 DE2407863 E(DE FR GB NL)

New cpds. are 13,15-dioxabicyclo-(10,5,0)-heptadecanes formula (I) (where R and R' individually or together are H methyl) esp. 13,15-dioxabicyclo-(10,5,0)-heptadecane.

Cpds. are useful as perfume components and may be prepd. reacting cyclododecanone with bromoacetic acid to form a hydroxy ester which is rearranged to form the lactone converting the lactone into the diol with sodium borohydride and acetalising the diol with paraformaldehyde. (4pp)



NIPE ★ D23 72090 D/40 ★EP --36-
Acyl-norbornane acetal(s) - useful as non irritating perfume ingredients possessing woody fragrance

NIPPON PETROCHEM KK 18.06.80-JP-082593 (07.03.80-JP-029693)

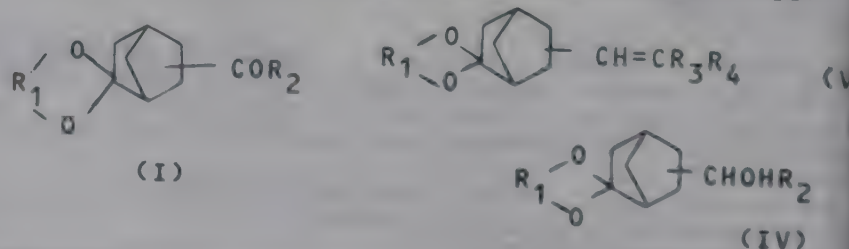
E13 (23.09.81) A61k-07/46 C07d-317/72 C07d-319/08 C07d-321/10 06.03.81 as 101654 (+ 7.3.80-JP-029694) (478BZ) (E) GB1324676 E(GB FR GB LI NL)

Acylnorbornanone acetals (I) in all isomeric forms are new. In R1 is satd. 2-7C hydrocarbon; R2 is H or 1-10C hydrocarbon.

Prepd. by several methods, e.g. by (a) oxymercuration from (IV), followed by oxidn. of (IV) to (I). (Where R3R4 are H hydrocarbon (total C's 1-9)). Step (a), reaction is pref. treatment with 0.5-2 mol. of Hg²⁺ salt in a solvent (H₂O, aq. THF etc.) at 15-80 deg.; then treatment with NaNH₄, NaOH or Na-I NH₃ at 0-30 deg. Alternative preps. of (IV) from (V) include oxythallation, hydroboration, etc.

Step (b), oxidn. is e.g. with Me₂CO/(i-PrO)₃Al (Oppenauer) pyridine-CrO₃ complex, etc.

I are stable to oxidn, are not toxic or irritating to skin, possess woody fragrance, and are useful in perfume compns. (34pp)



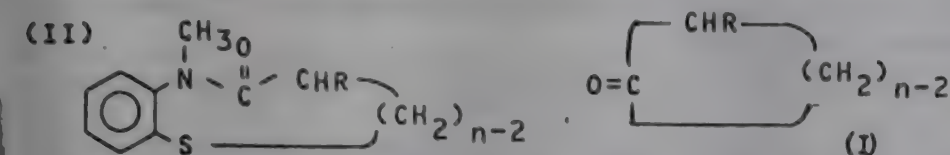
RIKA ★ D23 72516 D/40 ★J5 6103
Cyclic ketone cpds. obtd. from lactam sulphide - useful synthesis of e.g. taxane or ophibolane or for synthesis perfumes

RIKAGAKU KENKYUSHO 21.01.80-JP-005407

B02 E13 (18.08.81) C07c-45/65 C07c-49/35 C07c-147/12 C07d-31.08.80 as 008-107 (69PW)

treating the prod. deprotonating agent and then with reducing agent to carry out desulphating redn. In the formulae, R is H or methyl and n is 8-12.

(I) are useful as materials for synthesis of cpd. having middle membered ring such as Taxane, Ophibolane, Cryophyllane, Germacrane, Humulane and Cembrane etc. or material for the synthesis of perfumes. (8pp)

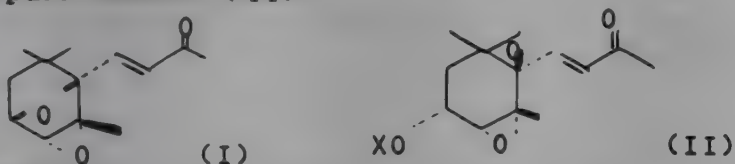


NISB ★ D23 72541 D/40 ★ J5 6103-184
Di:epoxy:ionone derivs. useful as flavourants etc. - prepd. by treating corresp. mono:epoxy hydroxy cpd. with base
JAPAN TOBACCO & SALT PUB(TORA SOSH) 28.12.79-JP-170398

E13 P15 (18.08.81) A231-01/22 A24b-03/12 A61k-07/46 C07d-303 C07d-307 C07d-493/18
28.12.79 as 170398 (75RP)

Novel diepoxyionone derivs. are of formula (I). (I) are prepd. by treating a cpd. of formula (II) (where X is arylsulphonyl or alkylsulphonyl) with a base.

An aroma-donored or flavour-donored compsn. contains (I). Specifically an epoxydehydroionone deriv. is dissolved in dioxane (140 ml) and water (56 ml), and the soln. is stirred at 29-32 deg. C for 1.5 hr. To the soln. is added ethyl acetate to separate water, and the organic layer is collected, then the solvent is removed by distn. The residue is subjected to silica-gel chromatography (developed with benzene/ethylacetate 1/1) to obtain 85% of transdiol and 15% of cis-diols as admixture. 0.1 g of the mixt. is sepd. by preparative thin-layer chromatography to obtain pure transdiol. (6pp)



MITN ★ D23 72761 D/40 ★ J5 6104-840
Refining fatty acid - by distn. of crude fatty acid after contact with water

MITSUBISHI GAS CHEM IND 24.01.80-JP-007206
E17 (20.08.81) C07c-51/44 C07c-53/12
24.01.80 as 007206 (75AS)

In a process for refining fatty acid by subjecting a crude fatty acid obtd. by reacting alcohol with carbon monoxide in the presence of catalyst, HF, HF-H2O-type or HF-BF3-H2O-type and then sepg. the catalyst from the reaction mixt. to distn., the improvement is that the distn. is conducted after contacting the crude fatty acid with water.

Pref. starting alcohols include propyl alcohol, butyl alcohol and octyl alcohol. The temperature and pressure when a crude fatty acid is brought into contact with water are pref. 0-100 deg.C and atmospheric pressure respectively.

No substantial colouring is observed after a long period of time. (4pp)

MITN ★ D23 72762 D/40 ★ J5 6104-841
Refining fatty acid obtd. from alcohol and carbon monoxide - in presence of fluorine-contg. catalyst, by contacting with oxidising agent after removing high b.pt. substances

MITSUBISHI GAS CHEM IND 25.01.80-JP-007473
E17 (20.08.81) C07c-51/48 C07c-53/12
25.01.80 as 007473 (75PW)

Crude fatty acid is obtd. by reacting alcohol carbon monoxide in the presence of a catalyst of HF, HF-H2O type or HF-BF3-H2O type, and the catalyst is removed from the reaction mixt. The crude fatty acid is contacted with an oxidising agent after removing substances of high boiling points as by-prods. Fatty acid undergoes no colouration with time.

Starting alcohols, are e.g. propionyl alcohol, butyl alcohol or octyl alcohol. The oxidn. is conducted at 50-300 (80-200) deg.C. When air or a gas contg. oxygen is employed, the oxygen fractional pressure in the reaction vessel is pref. kept at not lower than 1.5 kg/cm2. When hydrogen peroxide is employed as the oxidising agent, its volume is pref. more than 0.01 pts. wt. in terms of 30 wt.% relative to 1wt.% of the crude fatty acid. (5pp)

EMEY D23 08128 U/08 = J8 1088-618
Sperm oil substitute - mixt of wax-esters and triglyceride as lubricant or lubricant additive

EMERY INDUSTRIES INC 28.06.71-US-157720
E17 H07 (08.09.81) *NL7208-905 + C08k-05/10 C08l-91/06
25.04.72 as 040990 (JB)

Substitute comprises mixt. of (a) 50-95 wt.% wax-esters derived from 18-22C unsatd. fatty acids and 6-20C satd. alcohols, and (b) 50-5% of a triglyceride with iodine number 50-120 and may be reacted with S, S halides or P sulphides.

The mixt. has props. e.g. iodine number, turbidity point and pour point, comparable with those of natural sperm oil (J48056706) (8pp)

LENL ★ D23 73090 D/40 ★ SU-794-018
Biologically active phytosterol emulsifier prepn. - by treating sterol-contg. base with isopropanol and hydrogen peroxide, used in pharmacology and cosmetics

LENINGRAD FORESTRY ACAD 05.01.79-SU-708648
A88 B04 (B07 D21) (07.01.81) A61k-31/56 C07j-09
05.01.79 as 708648 (114VE)

Phytosterol, used as emulsifier and base for ointment and cream in pharmaceutical and perfumery-cosmetic inds., is prepd. by treating sterol-contg. base (contg. physterol, solid soap and cellulose ind. vat residue) with hot isopropanol and H2O2 before drying the clarified phytosterol. To increase yield the soln. drying is conducted immediately by spraying onto flowing polyfluoroethylene resin packing in a stream of gaseous heat-carrier (viz. air or CO2 at 20-40 deg.C.). (3pp)

HERC ★ D23 73400 D/40 ★ US 4284-814
Propene trimer or tetramer oxime mixts. - useful as perfume components in colognes, cosmetics, detergents etc.

HERCULES INC 03.12.79-US-099699 (08.09.78-US-941101)
E16 (18.08.81) C07c-131

03.12.79 as 099699 Div.ex.4219450 (1248BZ)
Propene trimer oxime comprising a mixt. of branched-chain nonanone oximes and having a refractive index range 1.4417-1.4578, a specific gravity range of 0.8735-0.8929 and a boiling range of 53-70 deg.C/1-0.8mm Hg is new.

Propene tetramer oxime comprising a mixt. of branched chain dodecanone oximes with corresp. values of 1.4595-1.4620, 0.8764-0.8841 and 86-104 deg.C/0.07-0.1 mm Hg is also new.

The primer and tetramer are useful in perfumes, cosmetics, colognes, detergents etc. to provide distinctive odours, as described in U.S.4219450 (Der.65839 C/37). (6pp)

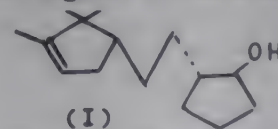
FRIT- D23 29035 D/16 = US 4289-658
Substd. cyclic alcohol(s), fragrance cpds. - obtd. by reacting cyclopentanone with 2,2,3 tri:methyl-3-cyclopenten-1-acetaldehyde

FRITZSCHE DODGE & O 19.09.79-US-077037
E15 (15.09.81) *WP8100-845 A61k-07/46 C07c-35/21
19.09.79 as 077037 (963RP)

2-(2',3',3'-trimethyl-3'-cyclopenten-1'-yl-ethylidene)- and ethyl-cyclopentanols of formula (I) are disclosed, where the dotted line is either a C-C single or double bond. (I) where the dotted line is a single bond (Ia) is claimed.

(Ia) may be prepd. by reacting cyclopentanone or its deriv. (e.g. its morpholine enamine) with 2,2,2-trimethyl-3-cyclopenten-1-acetaldehyde, then hydrogenating the prod.

The cpds. have soft, warm woody notes with powdery nuances and may be used as fragrance materials. (5pp)

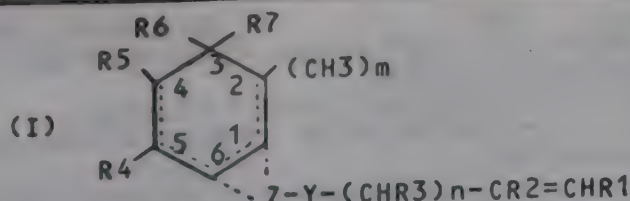


FIRM D23 52777 W/32 = US 4289-659
Organoleptic oxygenated alicyclic derivs - giving galbanum or juniper oil-like odours to perfume compsns. soaps etc.

FIRMENICH SA 29.01.74-CH-001147
B03 C02 E15 + P15 (15.09.81) *DE2502-767 C07c-69/74 C11b-09
05.05.80 as 146224 Div.ex 4147672 (+17.1.75, 23.7.76, 21.8.78-US-541988, 708075, 935263) (963RP)

Cyclic C-6 esters of formula (I) are new having a satd. ring or isolated double bond in position 1,4 or 6, or two double bonds in position 1 and 4, 1 and 5, or 4 and 6; m is 0 or 1; n is 0-2; Z is a -CO gp. bound at the 1 or 6 position; Y is O; R1-5 are H, or one of them is CH3 and the rest H; each of R6 and R7 is 1-3C alkyl or opt. 1 of them is H; specifically claimed is prop-2-en-1yl-(3,3-dimethyl-cyclohex-6-en-1-yl)-carboxylate.

(I) are useful as perfuming-, odour-, flavouring- and odour-modifying agents. Used for modifying organoleptic properties of foodstuffs, animal feeds, beverages, pharmaceuticals and tobacco prods. (21pp)



HENK D23 15093 C/09 = US 4289-660
Esters of mixed tri:cyclo-decane carboxylic acid cpds. - as
perfume ingredients for cosmetics, cleaning compsns. etc.

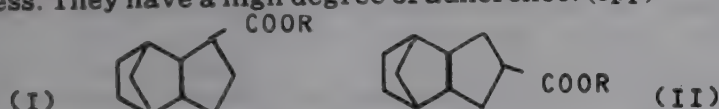
HENKEL KG AUF AKTIEN 12.08.78-DE-835445

E15 (D21 D25) (15.09.81) *EP---8-103 A61k-07/46 C11b-09

21.07.80 as 170914 (+ 10.8.79-US-065606) (963WB)

Perfume compsn. is claimed comprising 1-50 wt.% of an isomeric
mixture of tricyclo (5.2.1.0(2.6)) decane carboxylic acids of formulae
(I) and (II) where R is opt. unsatd. opt. branched 1-5C aliphatic
hydrocarbyl, the balance being usual ingredients including at
least 1 other fragrance substance. Pref. R is allyl or propargyl. A
pref. compsn. contains a mixture of esters where R is allyl and mixture
of esters where R is propargyl.

Cpds. have intensive and lasting fragrances of high quality and
fullness. They have a high degree of adherence. (3pp)



FARB D23 05713 D/05 = US 4289-913
3- and 4-Formyl-tri:cyclo-(5,2,1,0-2,6)-decene-3 prodn. - by
hydroformylation of dicyclopentadiene using a rhodium complex
catalyst

BAYER AG (RUHR) 13.07.79-DE-928313

E15 (15.09.81) *BE-884-206 C07c-45/50

30.11.79 as 099121 (931MR)

3- or 4-formyltricyclo-(5,2,1,0(2,6))-decene-8 is prepd. by
contacting dicyclopentadiene with CO and H₂ in the presence of a
Rh catalyst at 110-150 deg.C and 50-400 atmos.

The catalyst is present in amt. 1-30 ppm of Rh w.r.t. the amt. of
dicyclopentadiene used, and is in the form of an organic
phosphine-CO contg. complex. The organic phosphine is an

aliphatic opt. branched-chain, a cycloaliphatic-, an aromatic- or
an arylaliphatic phosphine or a phosphine contg. one or more
subst. cyclic gps., or one contg. 2P or more and 1-30C.

The prod. is esp. used in perfume and fragrance compsns., and
as intermediates in the mfr. of synthetic rubber. (3pp)

FRIT- D23 47689 D/26 = WP 8102-518
3-Methylene-4-halo-1,1-di:methyl-cyclohexane(s) - useful as
fragrance materials

FRITZSCHE DODGE OLC 13.03.80-US-129898

E15 (17.09.81) *US4272-412 A61k-07/46 C07c-49/21 + C07c-
45/63

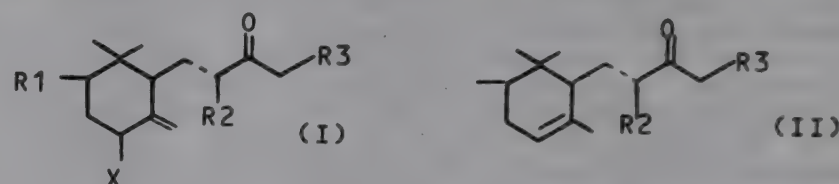
04.03.81 as U00295 (478KB) (E) US3852355 US3310584 US1967864

4.Jnl.Ref N(AU BR JP) E(AT CH DE FR GB LU NL SE)

Cyclohexane derivs. (I) are new. In (I) dotted line is a single bond
(SB) or double bond (DB); R₁R₂R₃ are H or Me; X is halogen. In
specific (I) dotted line is SB; R₁R₂R₃ are H; X is Cl or Br. Prodn.
of (I) comprises reaction of (II) in solvent with HOX generated in
situ. Solvent is pref. CH₂Cl₂ or ethylene dichloride.

Solvent is pref. CH₂Cl₂ or ethylene dichloride. A soln. of
KH₂PO₄ (5.44 g) in H₂O (40 ml) was added over 15 min. to 5.25%
NaOCl soln. (28.5 ml), alpha-dihydroionone (3.88 g) and CH₂Cl₂
(110 ml). Mixture was stirred for 1 hr at 25 deg.C to afford (I; dotted
line SB; R₁R₂R₃ are H; X is Cl) (61%) b.pt. 101-106 deg.C/0.2 mm.

(I) are fragrance materials showing clean, soft, powdery,
warm, sweet, woody orris, berry-like notes. (20pp)



See Also

D13 SU793986

D13 US4289661

D13 US4289705

D18 US4289145

D24: SOAP; SOAP DETERGENTS

UNIL D24 54834 B/30 = US 4289-641
Deodorising textile washing compsn. - contg. soap, deodorant,
builder and bleach (NL 16.7.79)

LEVER BROTHERS CO 12.01.78-GB-001285

(15.09.81) *DE2900-722 C11d-09/44

15.08.78 as 933931 (964RP)

Deodorant detergent prod. comprises (i) 1-99 wt.% soap; (ii) 0.99-
98.99 wt.% other detergent adjuncts including builder and/or
bleach; and (iii) 0.01-10 wt.% deodorant compsn. comprising 45-
100 wt.% of deodorant active components.

Components (iii) have a lipoxidase-inhibiting capacity of at
least 50% or a Raoult variance of at least 1.1. The components are
classified into 6 classes: (1) phenolic substances; (2) essential oils,
extracts, resins and synthetic oils; (3) aldehydes and ketones; (4)
polycyclic cpds.; (5) esters and (6) alcohols. When component can
be in more than one class it is classified in the lower or lowest
class.

The components are selected so that (a) the deodorant compsn.
contains at least 5 components of which at least one must be from
each class (1), (2) and (4); the compsn. contains components from
at least 4 of the classes; and (c) any component present in the
deodorant compsn. at a concn. of less than 0.5 wt.% is eliminated
from the requirements (a) and (b).

The compsn. has a deodorant value of 0.50-3.5 as measured by
the deodorant value test. The compsn. is used for washing fabrics
which when subsequently worn in contact with human body skin
reduce odours..(13pp)

D25: OTHER DETERGENTS

FARH D25 89744 B/50 = EP G005-829
Anionically emulsified wax emulsion contg. cationic germicide -
prepd. in presence of nonionic surfactant, useful for cleaning
floors

HOECHST AG 06.06.78-DE-824716

A82 G02 P34 (A17 A97) (26.08.81) *EP---5-829 C09g-01/04 C11d-
03/48 + A01n-33/04

06.06.78 as 101655 (068AS) (G) DE2023204 FR2333841 E(BE DE FR
GB IT NL)

A biocidal aq. wax emulsion, suitable for the care of floors is
made by preparing separately an anionically emulsified wax
emulsion contg. 5-40% by wt. of wax and an aq. soln. of a salt or a
quaternisation prod. of a long chain fatty amine as cationic

and 6-50 mols ethylene oxide. The components are then mixed so
that the final prod. contains 1-20 wt. % wax, 1-10 wt. % biocide and
1-10 wt. % ethylene oxide condensate.

The wax is pref. a polyethylene wax oxidate of mol.wt. 2000-
10000 and acid number 7-70 or a natural or synthetic ester wax of
acid number 5-80 and saponification number 10-40. The cationic
biocide and anionic wax salt form a neutral salt that makes the
emulsion storage stable. (5pp)

ENK ★ D25 72101 D/40 ★ EP -36-162
Low phosphate controlled foam washing agent - contg. alkali aluminosilicate, complexing agent, surfactants and foam regulator

HENKEL KG AUF AKTIEN 17.03.80-DE-010192
A97 E33 (E11) (23.09.81) C11d-01/83 C11d-03/12
03.81 as 101716 (513NS) (G) DE2900063 DE2338468 GB1450580
D-137447 US4136045 DE2544035 E(AT BE CH DE FR GB IT LI UNL SE)

Low phosphate, controlled foam powdered washing agent compsn. comprises (A) 20-50 wt.% finely divided, water-insoluble, bound water-contg. alkali aluminosilicate of formula $B_7-1.5x \cdot 2EO \cdot Al_2O_3 \cdot 1.3-4.0 SiO_2$ (on anhydrous active material), having a binding capacity of 100-200 mg CaO/g dry material- in which a / Na or K; (B) 0.1-3 wt.% water-soluble complex formers chosen from substd. phosphonic acid and their salts; (C) 3-12 wt.% ionic surfactants; (D) 1-15 wt.% non-ionic surfactants, the total amt. of (C) + (D) being 5-18 wt.%; and (E) 0.5-10 wt.% of a foam control agent comprising (E1) a surfactant-free granular carrier and (E2) a silicic acid contg. polysiloxane defoamer adsorbed onto the carrier (E1). (E1) is comprised of at least one of polyphosphates, silicates, carbonates and sulphates of Na and is obt'd. by spray drying a 50-70 wt.% aq. slurry of the anhydrous salt at 120-300 deg. C. (E) is comprised of 85-98 pts. wt. (E1) and 15 wt.% (E2).

Prods. are environmentally benign, have excellent washing action, do not cause greying of polyester fabrics, and are suitable for use in automatic washing machines. (27pp)

ROC D25 18474 B/10 = GB 1599-036
Liq. compsn. for softening textile materials - contg. substd. polyamine and nonionic lubricant for fabrics

PROCTER & GAMBLE CO 30.05.77-GB-022738 (14.07.75-US-595632)

A87 E16 F06 (A25) (30.09.81) *FR2393-099 D06m-13/36
05.78 as ----- Add to 1550205 (965PW)
Liq. textile treatment compsn. comprises (a) 0.5-12 wt.% of a substd. polyamine (partial) salt of formula $R(R_1)(R_2)N(+)(-)(CH_2)_n \cdot N(+)(R_1)_2m \cdot (R_2)A(-)$, b) 0.5-12 wt.% nonionic fabric lubricant and (c) a liq. carrier. R is 12-22C alk(en)yl. The (R_1) s are each independently H, $2H_4O$ pH, $-(C_3H_6O)_gH$ or 1-3C alkyl. p and q are 0 or a number, t (p + q) is not more than 15. m is 1-5 n is 2-6. (R_2) is R or R_1 , but more than 1 of the (R_2) s is R. $A(-)$ is 2 or more anions, with total charge balancing the N atoms. (b) is either (i) ester of 12-24C fatty alcohol and mono- or poly 1-8C carboxylic acid; (ii) monoether of 24C fatty alcohol and mono or poly 2-8C alcohol or (iii) $(R_3)-X-4$. R_3 is 12-24C hydrocarbyl and R_4 is 1-6C hydrocarbyl opt. OH substd. and interrupted by 1 O link, X is S, $-NHC(:O)-$ or $C(:O)NH-$. and (ii) contain at least 16C atoms.

The compsns. are liq. rinse softening compsns. that give excellent deposition onto the fabric surface from aq. soln. (9pp)

TK ★ D25 72577 D/40 ★ J5 6103-246
Fluorescent whitening dye for detergent - obt'd. by heating triazinyl-amino:stilbene deriv. in presence of aromatic sulphonic acid deriv. and/or surface activator

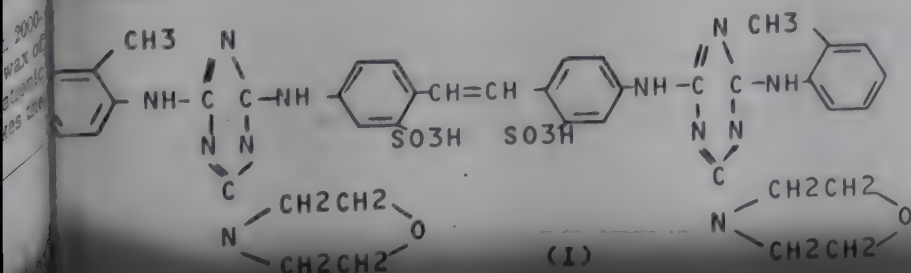
MITSUI TOATSU CHEM INC 22.01.80-JP-005262

E23 (18.08.81) C09b-57

01.80 as 005262 (136HM)

Triazinyl-aminostilbene deriv. crystal is produced by (1) bis-triazinyl-aminostilbene deriv. salts of formula (I) at 50-100 deg.C in the presence of (2) one or more of aromatic sulphonic acid salt-contg. cpd., anionic cationic surface and amphoteric surface activator, in an amt. of above 0.5% of (1) in aq. medium. Component (1) is synthesised using acetone as the solvent for anuryl chloride or by condensn. in the presence of alkaline with metal carbonate and surface activator in aq. solvent. Component (1) is yellow crystal (alpha-type). Component (1) is mixed with 5-20 times the wt. of water and mixed with above 0.5% (2) and heated at 90-100 deg.C in slightly alkaline state. Component (2) is e.g. anthraquinone-1-sulphonic acid, Na anthraquinone-2-sulphonate, beta-naphthalene-sulphonic acid-maline condensate.

The beta-type crystal is white and, when mixed with detergent, improves the whiteness of detergent and whitens the washed re. (4pp)



ASAG ★ D25 72845 D/40 ★ J5 6105-000
Particulate detergent compsn. - consisting of surfactant, builder comprising sodium potassium carbonate and filler

ASAHI GLASS KK 25.01.80-JP-006764

E34 (21.08.81) C11d-03/10

25.01.80 as 006764 (126AT)

A particulate detergent compsn. consists of a surfactant builder and filler. The builder consists of sodium potassium carbonate. The content of sodium potassium carbonate is 5-40 wt.%. The surfactant pref. consists of a salt of alkylbenzene sulphonic acid or a higher fatty alcohol.

Pref. content of sodium potassium carbonate in the detergent compsn. is 5-40, esp. 15-35 wt.%. Hexahydrate of sodium potassium carbonate is used conventionally. Conventional spray-drying process are used for the particulation of the detergent compsn.

Sodium potassium carbonate is used as the builder in place of phosphate. Pollution e.g. eutrophication of river water etc. due to phosphates is avoided, and satisfactory detergency is obt'd. without using phosphates. (3pp)

SUNP- D25 75924 B/42 = J8 1038-640

Acidic powder cleaner for applying to inside of pipes etc. - contains sodium hydrogen sulphate and/or sulphamic acid, (bi)carbonate as effervescent substance, solidification inhibitor and extender

SUNPOLE KK 27.02.78-JP-020944

E34 (E36) (08.09.81) *J54113-607 C11d-07/10

27.02.78 as 020944 (117AT)

The powder cleaner contains (i) $NaHSO_4$ and/or sulphamic acid as active components. (ii) an effervescent substance e.g., K-Na sodium carbonate, K_2CO_3 , Na_2CO_3 , $NaHCO_3$, etc., (iii) 2.5-50 wt.% a solidification inhibitor, e.g. the same compounds as the aforesaid effervescent substance other than $NaCO_3$ and (ii) an extender, e.g., Na_2SO_4 .

The powder acid cleaner enables one to clean the insides of drain pipe, traps, filter pipes, etc., without the need to remove or disassemble pipe arrangement etc. (J54113607) (5pp)

CONO ★ D25 73037 D/40 ★ RD -209-042
Pumpable amide compsn. for dish-washing foam booster - contains ethoxylated alcohol sulphate(s) and lauric or myristic mono:ethanolamide

CONOCO INC 20.08.81-RD-209042

A97 (10.09.81) C11d-00/*

20.08.81 as -----

Amides e.g. lauric/myristic monoethanolamide (LMMEA) are used as foam boosters in dishwashing liq detergents esp where a high foam level is desired. Normally these materials are solids at room temp and are not readily soluble in water so special handling and heating are required in order to incorporate the LMMEA into the prod.

A blend of LMMEA and ethoxylated alcohol sulphate is pumpable at ambient temp and is temp stable. Because of this, the resulting blend can be used to introduce the LMMEA into the detergent prod. (--pp)

CONO ★ D25 73040 D/40 ★ RD -209-045
Liq. washing agents contg. fabric softener - contg. nonionic ethoxylated alcohol detergent with peaked ethoxy content

CONOCO INC 20.08.81-RD-209045

A97 (10.09.81) C11d-00/*

20.08.81 as ----- (513HM)

The use of peaked distribution ethoxylates (I) in liq laundry formulations contg a fabric softener, esp a quat ammonium salt softener, gives an improvement w.r.t the use of conventional ethoxylates. The (I) is a non-ionic ethoxylated alcohol detergent having a higher concn of the median number of moles of ethylene oxide, a lower amt of one- and two-mole ethoxylates, a lower amt of high mole ethoxylates and a lower unethoxylated alcohol content as compared to conventional ethoxylates. In an example, a conventional ethoxylate (II) of 80% C12 and 20% C14 alcohols and contg 58% ethylene oxide was used, contg 9.5-10% contg 7 moles EO and less than 10% ethoxylates contg 6,7 and 8 moles EO. A peaked ethoxylate (I) was used with the same basic compsns but contg 13.5-14% ethoxylates contg 7 moles ethylene oxide and above 11 moles each of ethoxylates contg 6,7,8 and 9 moles EO.

Fabric softeners used were methyl(1)oleylamidoethyl(a)oleyl imidazolinium methosulphate (III) and dialkyl dimethyl ammonium chloride (IV). The cloud/clear temps (deg F) and viscosities (cp) of compsns comprising 25% ethoxylate, 4% fabric softener, 10% Ethanol and remainder water. were as follows: (II) + (III) 17/26, 133; (II) + (IV), 48/58, 212; (I) + (III), 10/21, 82; (I) + (IV), 40/51, 144. (--pp)

VOLG = ★ D25 73079 D/40 ★ SU-794-001
 Prodn. of alkyl sulphate or sulphonate for detergent mfr. prepn. - by treating higher fatty alcohol or alkyl-benzene with gaseous sulphation or sulphonation agents in film-type reactor
VOLGODON SURFACTANT 05.10.78-SU-669475
E19 (07.01.81) C07c-139 C11d-03/34
 05.10.78 as 669475 (114VE)
 Prepn. of sulphate or sulphonate cpds. by sulphonation or sulphatisation of higher fatty alcohol or alkylbenzene in a film (which is introduced into the top part of the reactor and turned by gas stream of velocity 10-30 m/sec with the aid of asymmetrical vortex-formers situated along the flow path) with gaseous sulpho-agent contg. 6-20 vol. % SO₃ (which is introduced from the top into the central part of the air-flow in the form of a fine jet at rate of 20-100 m/sec into a zone of SO₃ concn below 1 vol. %) and processing in molar ratio (alcohol or alkylbenzene):SO₃ = 1:0.02-1.5 is made more economical by turning the film with reactor-zone exhaust gas (pref. freed of sulpho-prod. droplets and H₂SO₄ fog).
 The process lowers overall air expenditure by 1/3. (2pp)

NOVO = ★ D25 73080 D/40 ★ SU-794-002
 Prepn. of alkyl sulphate detergents - from higher aliphatic alcohol by treatment with sulphuric acid and phosphorus pentoxide and then with alkali
NOVOMOSKOVSK CHEM 09.10.78-SU-672055
E17 (07.01.81) C07c-139/10 C11d-03/34
 09.10.78 as 672055 (1471VE)
 The prepn. of alkyl sulphates is carried out by the treatment of higher fatty alcohols (or primary 10-18C alcohols) with a mixt. of 90-100% H₂SO₄ and phosphoric anhydride in molar ratio alcohol:acid: phosphoric anhydride equal to 1:1:(0.33-1) at 20-40 deg.C, followed by neutralisation of the reaction mixt. with a base.
 The degree of sulphation is 99%. The products do not contain any free alcohols or Na₂SO₄, but contain polyphosphoric sodium salts, which enhance the props. of the detergent compositions. (3pp)

CIBA D25 19949 Y/12 = SU-795-501
 Washing powder compsn. based on nonionic surfactants - contg. organic polymer to improve storage and free-flow properties
CIBA GEIGY AG 17.09.75-GB-038146
A97 (07.01.81) *BE-846-258 C11d-01/83 C11d-03/37
 16.09.76 as 403393 (GW)
 A solid detergent compsn. comprises (a) 0-50 wt. % (pref. 5-50%) of a synthetic non-ionic surfactant, (b) 50-80 wt. % of active change additive (such as carbonates, borates, phosphates, silicates, etc. sequestrants, perborates, percarbonates and persulphates, (c) 0-25 wt. % of an anionic surfactant and (d) 0.01-2.5 wt. % (pref. 1-2%) of a water insoluble dispersed organic polymer provided the compsn. contains at least 5% (a) or (c). The compsns. are prepd. by mixing the ingredients, esp. an aq. slurry of a, b and c.
 The compsn. is used for washing powder. Recent compsns. have been slightly sticky with an oil sepn. appearance, giving flow problems in manufacture and having a caking tendency on storage. The above compsn. is more free-flowing avoiding the other disadvantages without adversely affecting the detergency quality. Bul. 1/7.1.81. (9pp)

COLG D25 39265 W/24 = US 4289-640
 Abrasive cleaning compsn. - contg. org. hydrotropic agent for improved detergency and foaming
COLGATE PALMOLIVE CO 21.01.74-US-434853
E12 + P43 (15.09.81) *BE-824-591 C11d-03/06 C11d-07/12
 21.01.74 as 434853 (964RP)
 Dry powder cleaning compsn. comprises particulate base which is an abrasive and/or detergent builder; synthetic organic detergent, and an organic hydrotrope. The proportion of hydrotrope to detergent is 0.4-5 in molar basis. At least 8 wt. % of any abrasive particles have a dia. of at least 0.037mm.
 Specifically the compsn. is a scouring powder comprising (1) up to 95% powdered abrasive material; (2) 0.1-15% organic detergent and (3) up to 4% builder salt. Pref. trichloroisocyanuric acid bleach and CaO desiccant are also included in the compsn.
 The compsn. has good grease cutting and foaming characteristics. (8pp)

HENK D25 75421 C/43 = US 4289-640
 Textile detergents with sizing action - contg. polysaccharide ether(s) with quat. ammonium gps.
HENKEL KG AUF AKTIEN 26.03.79-DE-911857
A97 (15.09.81) *DE2911-857 C11d-03/22
 29.02.80 as 126037 (964RP)
 Liq. detergent compsn. with sizing effect comprises (a) 0.5-5 wt. polysaccharide amino ether contg. quat. ammonium gps.; (b) 3-10 wt. % nonionic surfactant; (c) 0-20 wt. % water-soluble builder salt; (d) 0-20 wt. % sequestering agent; (e) 2-20 wt. % or organic solvent selected from alkanols, diols, ether alcohols and glycol ether having 1-3C per alcohol moiety; (f) 0-1 wt. % dyes, fragrances and preservatives; and (g) balance water.
 Component (a) is e.g. polygalactomannan aminoether or starch aminoether. Builder is pref. sodium or potassium pyrophosphate or triphosphate. Compsn. has sizing and stiffening properties and makes sec. treatment of washed textiles unnecessary. (-pp)

RHON D25 60856 A/34 = US 4289-640
 Dust-free stabilisation of anhydrous sodium metasilicate - by heating it with a cpd. releasing its water of crystallisation at temps. below the m. pt. of the silicate pentahydrate (BE 16.8.78)
RHONE-POULENC INDUSTRIES 16.02.77-FR-004380
E34 (15.09.81) *DE2806-161 C11d-07/54
 30.08.79 as 071028 (+ 15.2.78-US-877882) (964RP)
 Novel compsn. comprises (i) anhydrous sodium metasilicate; and (ii) minor amt. of inorganic molecular water donor including either bound water of hydration or free water of sorption which will evolve its water content to the metasilicate at a temp. less than that required for fusion of sodium metasilicate pentahydrate (72.2 deg.C), and as will convert 1-20 wt. % of the metasilicate into its pentahydrate. The water donor is Na₂B₄O₇·10H₂O; Na₂CO₃·7H₂O; Na₂HPO₄·7H₂O; Na₂HPO₄·12H₂O; (NaPO₃)₃·6H₂O; Na₂SO₄·10H₂O, a caustic cpd. or silica.
 Compsn. is used as antiredeposition agent for detergents and stabilised against attrition or dusting. (4pp)

ARMO ★ D25 73556 D/40 ★ US 4289-640
 Pre-wash stick cleaner compsn. - contg. paraffinic hydrocarbon and nonionic detergent, tallow soap, and sorbitol
ARMOUR-DIAL INC 04.06.80-US-156324 (11.09.78-US-941829)
E19 (15.09.81) C11d-09/26 C11d-17 C11d-50
 04.06.80 as 156324 (478NS)
 Compsn. is a solid, non-thixotropic stick contg. (by wt.): (a) ca 70% of a balanced system of paraffinic hydrocarbon solvents (I) and non-ionic detergents (II); (b) ca. 15% tallow p (III); and (c) ca. 15% sorbitol (IV) (70% soln.). (I) have average mol.wt. ca 143 and b.pt. 300+5 deg.F. (II) have equiv. of ca. 3 ethylene oxide units. Pref. (I) is shell Sol 70 (RTM); pref. (II) is 'Tergitol 15-5-3' (RTM). Wt. ratio (I):(II) is ca. 80:20. A prefd. (I)-(II) mixt. is 'Ucar 5076' (RTM). (III) may contain up to 15% of other 12-15C fatty acids.
 Solid stick is more convenient than conventional aerosol or liq. pre-wash cleaners, and keeps its form both in storage and in use (3pp)

AIRW. D25 02267 C/02 = US 4289-81
 Pouch for uniform release of chlorinating agents etc. - to media is made of insol. PVA
AIRWICK IND INC 04.05.79-US-035369 (26.06.78-US-919120)
A96 B07 C03 + Q32 Q34 (D15) (15.09.81) *GB2024-193 B65d 01/20 B65d-11/20
 04.05.79 as 035369 (936TM)
 A sealed pouch for the controlled release of chlorinating agent into an aq. medium at up to 60 deg.C is described. It comprises an envelope of cold water insoluble PVA (I) in film form contg. chlorinating agent (II) having at least a min. solubility in water.
 Aq. soln. of (II) has pH 2.5-10.0 (4.0-10.0). Pouch has max. ratio of wt. of active ingredient to pouch vol. of about 50 lb/cubic foot (I) is at least 99% hydrolysed and has min. degree of swelling in water of 120%. Pref. up to 30 wt. % (II) is replaced by alkali metal halide. Pref. (II) is trichloroisocyanuric acid, Na trichloroisocyanurate and/or K dichloroisocyanurate. An initial high rate of release is achieved after which uniform and controlled release occurs. (8pp)

D25

See Also

D23 US4289660

ABBO 07.01.80 ABBOTT LABORATORIES B04 D16 = J5 6102-790
Stabilisation of peroxidase in serum protein based medium - 19303D/11

AGEN 21.01.72 AGENCY OF IND SCI TECH D17 = J8 1038-597
Sepn. of maltulose from maltose-maltulose mixtures - 42272V/23

AGEN 09.03.78 AGENCY OF IND SCI TECH A23 D16 = J8 1038-115
biodegradation of polyesteramide copolymer - 78350B/43

AGEN 26.10.78 AGENCY OF IND SCI TECH D16 E17 G02 = J8 1038-137
Microbial prepn. of 4,6-di:methyl-3,6-heptadienoic acid - 42355C/24

*AGEN 23.01.80 AGENCY OF IND SCI TECH A96 B04 D22 (A12) *J5 6104-670
1,2-Polybutadiene heparinised material - 72696D/40

*AGEN 29.01.80 AGENCY OF IND SCI TECH A88 D15 E14 J01 (A14) *J5 6105-706
Ion concentrating membrane prodn. - 72904D/40

*AGRI= 10.07.79 AGRIC CHEM LAB C03 D16 (D13) *SU -794-072
Treatment of bacterial biomass for fodder mfr. - 73136D/40

*AGRO- 07.03.80 INST AGRONOMIC D16 *BR 8001-360
Prodn. of alcohol from bamboo - D/40

*AGRO- 07.03.80 INST AGRONOMIC D16 *BR 8001-361
Prodn. of alcohol from bamboo - D/40

*AGRO- 07.03.80 INST AGRONOMIC D16 *BR 8001-362
Prodn. of alcohol from bamboo - D/40

AIRL 20.11.78 AIR LIQUIDE L' D15 = EP G011-573
Treatment of sewage and septic sludge - 38767C/22

AIRP 12.04.76 AIR PRODUCTS & CHEM INC D15 = IL --51-663
Activated sludge treatment ok phosphate-contg. aq. effluent - 55841Y/32

AIRW- 26.06.78 AIRWICK IND INC A96 B07 C03 D25 (D15) = US 4289-815
Pouch for uniform release of chlorinating agents etc. - 02267C/02

AJIN 17.04.78 AJINOMOTO KK B04 D16 S03 S05 = J8 1038-120
Rapid quantitative analysis of vitamin or aminoacid - 88318B/49

AJIN 31.08.78 AJINOMOTO KK B05 D13 = J8 1038-126
Aminoacid compsn. - 28434C/16

AJIN 08.09.78 AJINOMOTO KK B05 D13 = J8 1038-127
Aminoacid soln. for intravenous feeding - 22341C/13

*AJIN 01.05.79 AJINOMOTO KK B03 D16 *J5 6102-794
Pyrimidine-ribonucleoside and deoxyribonucleoside cpds. - 72453D/40

*AJIN 28.12.79 AJINOMOTO KK B04 D16 *J5 6102-792
Nuclease inhibitor mfr. - 72452D/40

*AJIN 28.12.79 AJINOMOTO KK B05 D16 E16 *J5 6103-146
Lysine deriv. and acid addn. salts - 72527D/40

*AJIN 22.01.80 AJINOMOTO KK D13 *J5 6102-766
Heat resistant oil-water emulsion seasoning - 72447D/40

ALBR 20.06.77 BUSH BOAKE ALLEN D22 E15 (D21 D25) = CA 1107-201
Space deodorant compsn., used esp. as aerosol spray - 00325B/01

*ALEX/ 18.04.78 ALEXANDER DS A97 D15 H03 *CA 1107-267
Hydrophobic, oleophilic porous granular oil absorbent compsn. - 71809D/40

ALFA 27.02.79 ALFA-LAVAL AB C04 D15 E17 = BR 8001-126
Ethanol prepn. by carbohydrate fermentation - 64462C/37

ALFA 15.01.80 ALFA-LAVAL AB D13 S02 = J5 6105-736
Appts. for weighing and mixing powder and liq. - 55492D/31

ALKU 12.03.77 AKZONA INC D22 E36 = CA 1107-643
Disinfectant compsn. for drinks industry - 51652A/29

ALKU 00.00.79 AKZO NV D16 = DE 3009-829
Prodn. of fermented drinks with reduced alcohol content - 72108D/40

*ALKU 14.03.80 AKZO GMBH D16 *EP --36-175
Prodn. of fermented drinks with reduced alcohol content - 72108D/40

*AMAN 17.01.80 AMANO PHARM KK B04 D16 *J5 6102-788
Betaine aldehyde dehydrogenase - 72450D/40

AMCY 02.05.77 AMERICAN CYANAMID CO A91 D15 J01 (A14) = CA 1107-414
Clarification of coal washing waste water - 19903B/10

AMCY 14.08.78 AMERICAN CYANAMID CO A96 D22 F01 (A23 A25) = IL -56-665
Non-absorbable surgical suture or ligature - 15121C/09

*ANDR/ 28.01.77 ANDREEV YUB D15 J01 *SU -795-550
Filter for purifying liquids - 73215D/40

ANIO- 14.01.80 LABS ANIOS SARL D22 = EP --36-339
Portable aerosol spray unit for disinfecting hospital areas etc. - 62734D/35

*AQUA- 16.05.74 AQUATAIN PARTNERSHI A96 B05 D22 E32 (E19) *US 4289-758
Aq. biocidal compsn. esp. for topical use - 73607D/40

*ARMO 11.09.78 ARMOUR-DIAL INC D25 E19 *US 4289-644
Pre-wash stick cleaner compsn. - 73556D/40

*ASAG 25.01.80 ASahi GLASS KK D25 E34 *J5 6105-000
Particulate detergent compsn. - 72845D/40

*ASAN= 29.02.80 AS USSR ANIMAL EVOL B05 C04 D13 *DE 3007-829
Prodn. of vitamin-B concentrate for nutritional purposes - 71867D/40

*ASBI= 24.07.79 AS USSR BIOCHEM MIC D16 J04 *SU -794-075
Preparing samples of root rhizosphere for electron-microscopic study - 73137D/40

*ATUP= 24.05.78 AS TURK PHYS TECH D15 *SU -794-339
Solar still for distilling impure and salt water - 73179D/40

*AUTH= 10.03.80 AS UKR THERMO PHYS D12 *DE 3009-119
Sausage drying system - 71895D/40

AVON 24.09.79 AVON PRODUCTS INC A86 D23 = J5 6103-299
Transparent candle with bottom safety layer - 29553D/17

*AVTE- 11.06.76 AVTEX FIBERS INC A96 D22 (A11) *US 4289-824
Surgical dressing or tampon comprising highly absorbent fibres - 73645D/40

BADI 01.10.76 BASF AG C03 D13 = CA 1107-122
Aq. preservative for animal feed - 25194A/14

BADI 06.10.77 BASF AG A26 D15 E16 H07 (A97 D22) = EP G001-436
Poly:alkylene poly:amine prepn. - 31930B/17

BADI 15.07.78 BASF AG A89 D15 E14 G06 = EP G008-638
Quat. ammonium cpds. of benzoin derivs. - 09318C/06

BAXT 01.11.79 BAXTER TRAVENOL LAB B07 D22 = NO 8102-186
Preparing sterile intravenous feed for hyperalimentation of patient - 15658D/10

BAYL- 25.09.78 BAYLOR COLLEGE MED B04 D16 S03 = J8 1038-196
Determin. of gram-positive and gram-negative bacteria - 24041C/14

BEEC 12.06.71 BEECHAM GROUP LTD B03 D16 = J8 1038-119
Antibiotic pseudomonic acid - 02884U/03

BEEC 12.06.71 BEECHAM GROUP LTD B03 D16 = US 4289-703
Antibiotic pseudomonic acid - 02884U/03

BEEC 12.11.77 BEECHAM GROUP LTD B02 C02 D22 = US 4289-696
3-Hydrocarbyl:sulphonyl-7-oxa-1-aza bi:cycloheptene derivs. - 47511B/26

BEEC 12.07.78 BEECHAM GROUP LTD D21 E34 = DS 2960-420
Inhibiting corrosion of aluminium tooth-paste tubes - 05825C/04

BEEC 16.01.79 BEECHAM GROUP LTD A96 B04 D16 = US 4289-850
In vitro interferon prodn. - 57349C/33

BEHW 05.01.80 BEHRINGWERKE AG A96 B04 D16 (B02) = J5 6103-199
Indoxyl-malto:dextrin derivs. useful as chromogenic substrate - 51842D/29

BEHW 19.01.80 BEHRINGWERKE AG A96 B04 D16 S03 = J5 6104-901
Carboxy- or hydroxy-alkyl polysaccharide derivs. - 55330D/31

*BEIN/ 19.03.80 BEINY D H M D21 *GB 2072-215
Floating soap - 72359D/40

BEPE- 16.05.77 BEPEX CORP D13 = GB 1599-018
Appts. for dewatering curd cheese - 44848C/25

*BETZ 14.07.80 BETZ LABS INC D15 E16 (E14) *US 4289-645
Compsns. for reducing oxygen content of aq. media - 73557D/40

BIAL- 14.03.77 BIALETTI R & C SPA D11 = CA 1107-567
Domestic dough mixer - 29339B/15

BIOK- 24.01.77 BIO-KINETICS INC C03 D15 (D13) = CA 1107-561
Purifying of effluents rich in sugar and starch - 36438A/20

*BIRU- 25.01.80 BIRU DAIKO KK D15 J01 *J5 6105-718
Filter system for waste water contg. magnetic substances - 72910D/40

*BIRU- 25.01.80 BIRU DAIKO KK D15 K07 *J5 6105-719
Electromagnetic filter for nuclear power plant liq. waste - 72911D/40

*BNEU= 30.06.78 BELO NEUROLOGY NEUR B04 D16 S03 *SU -794-071
Dehydrogenase activity determ. - 73135D/40

BOEF 12.04.72 SUDEUTSCHE ZUCKER B03 D17 = J8 1038-599
Isomaltitol by hydrogenation of isomaltose - 54151U/37

BOEF 09.06.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 S03 (S05) = IL --52-047
Substrates compsn. or enzymatic activity evaluation - 81194Y/46

BOEF 18.07.78 BOEHRINGER MANNHEIM GMBH B04 D16 E17 S03 (S05) = J8 1038-199
Glycerol determination using glycerol dehydrogenase - 05764C/04

BOHT 19.07.75 BOHME DR T KG D18 = SU -795-502
Leather prodn. from pelts contg. water - 05993Y/04

*BOLI 05.03.80 BOLIDEN AB D15 E37 *WP 8102-569
Heavy metals removal from acidic aq. solns. - 73713D/40

BONG/ 04.03.80 BONGARD P D11 = WP 8102-506
Truck for bakery oven with air-recycling - 51688D/29

*BOSH/ 06.03.80 BOSHOLM J D15 *DD -149-355
Water and steam cycle alkalisation to prevent corrosion - 71830D/40

*BOUK/ 09.10.78 BOUKHRIS Y D12 *IL --55-701
Food-slicing machine partic. for fish - D/40

BROO- 29.10.74 BROOKSBANK A88 D18 F07 = J8 1038-691
Leather conveyor belt for fibres - 18856X/11

BRPE 17.01.80 BRITISH PETROLEUM LTD C01 D22 E12 L02 (D11) = J5 6103-133
Solid di:potassium penta:propionate - 57279D/32

BRTA 08.03.80 BAT CIGARETTEN-FAB D18 = BR 8101-303
Aromatising agent mfr. from chlorophyll free alcohol tobacco extract - 70114D/39

BRTA 08.03.80 BAT CIGARETTEN-FAB D18 = BR 8101-306
Aromatising agent prodn. from alcoholic tobacco di:terpene extract - 70115D/39

BRUH 14.03.80 BRUNSWICK CORP A88 D15 J01 = BR 8101-508
Highly asymmetric polymeric membrane cast from dope - 72163D/40

*BRUH 14.03.80 BRUNSWICK CORP A88 D15 J01 *EP --36-315
Highly asymmetric polymeric membrane cast from dope - 72163D/40

BRYA/ 15.02.80 BRYANT B J B04 C03 D16 S03 = BR 8001-254
Mono-specific antibodies prodn. - D/38

BUCH 24.08.77 BUCHERGUER MASCH D16 = AT 7805-364
Large horizontal container drive - 18245B/10

BUHL- 05.09.78 FA BUHLER E D15 E36 S03 S05 (D16) = EP G008-725
Oxygen transfer rate measurement - 20432C/12

BUXD 26.09.78 BUXTED CHICKEN CO D12 = AT 7906-313
Prodn. of treated meat products - 11169C/07

CASS

- CASS 23.12.77 CASSELLA AG A87 D18 E19 F06 = EP G002-773
Compsn. for treating cellulosic textiles and leather - 49263B/27
- CASS 23.12.77 CASSELLA AG A87 D18 E19 F06 = US 4289-665
Compsn. for treating cellulosic textiles and leather - 49263B/27
- CELA 13.03.78 CELANESE CORP A97 D18 (A18) = CA 1107-046
Tobacco substitute contg. cellulose deriv. - 70271B/39
- CELF- 11.08.77 CELFIL CO D18 F09 = AT 7706-706
Mfr. of paper band for cigarette filter tips - 89704A/50
- CELF- 11.08.77 CELFIL CO D18 F09 = US 4289-725
Mfr. of paper band for cigarette filter tips - 89704A/50
- CELL- 14.12.77 CELLCOR CORP CANADA D17 T06 (D13) #CA 1107-727
Continuous starch hydrolysates prepn. using acid starch suspension - 28873A/16
- * CETU- 10.03.80 CETUS CORP B04 D16 *EP --36-259
Prodn. of predetermined protein - 72134D/40
- * CETU- 14.03.80 CETUS CORP B05 D13 E14 *EP --36-258
Aspartame prodn. from synthetic polypeptide - 72133D/40
- CHEF 11.03.80 GRUNENTHAL GMBH C03 D13 (D16) = DE 3009-210
Dietic foods contg. plant polysaccharide - 70099D/39
- * CHEM- 10.03.80 CHEMETRON PROCESS E D14 J04 *GB 2072-030
Universal batch processor for foods and chemicals - 72309D/40
- CHIN 25.03.77 CHINOIN GYOGYSZER D16 (D13) = CA 1107-210
Plant waste conversion to protein by hydrolytic process - 73096A/41
- CIBA 17.09.75 CIBA GEIGY AG A97 D25 = SU -795-501
Washing powder compsn. based on nonionic surfactants - 19949Y/12
- CIBA 21.05.76 CIBA GEIGY AG B05 C03 D22 E11 = SU -795-484
Substd. (1)-amino-methane-phosphonous acid derivs. - 82995Y/47
- COLG 21.01.74 COLGATE PALMOLIVE CO D25 E12 = US 4289-640
Abrasive cleaning compsn. - 39265W/24
- COLG 03.12.79 COLGATE PALMOLIVE CO D22 F07 = DK 8004-230
Disposable napkin - 27261D/16
- COLG 03.12.79 COLGATE PALMOLIVE CO D22 = DK 8004-776
Absorbent pad such as sanitary towel or baby's napkin - 25453D/15
- CONO 14.02.80 CONOCO INC D25 E14 = NO 8100-212
Alkoxylation of cresylic acid using barium or strontium catalyst - 66282D/37
- * CONO 20.08.81 CONOCO INC A97 D25 *RD -209-042
Pumpable amide compsn. for dish-washing foam booster - 73037D/40
- * CONO 20.08.81 CONOCO INC A97 D25 *RD -209-045
Liq. washing agents contg. fabric softener - 73040D/40
- CONO- 13.02.80 CONOCO INC D25 E17 = NO 8100-197
Alkoxylation of alcohol using promoted barium contg. catalyst - 66283D/37
- COOX 14.12.79 COORS PORCELAIN CO A96 D21 L02 = DK 8005-316
Method of mfr. of dental appliance - 48114D/27
- CORG 13.09.79 CORNING GLASS WORKS B04 D16 = J5 6102-786
Isolating specific population gps. of viruses - 25730D/15
- CORG 13.12.79 CORNING GLASS WORKS D16 (D13 D17) = DK 8005-309
Disinfecting immobilised enzyme compsns. - 46417D/26
- CORP 26.10.71 CPC INTERNATIONAL INC D16 (D17) = J8 1038-114
Glucose isomerase enzyme prepn. - 39458B/21
- * CORP 26.03.80 CPC INTERNATIONAL INC D17 *GB 2072-209
Starch and protein recovery from starch bearing materials - 72356D/40
- * COUL 20.03.80 COUNCIL SCIE IND RES D16 *GB 2072-218
Shelf stable sorghum beer prodn. - 72360D/40
- CRIN- 27.02.80 CRINA CENTRE RECH1 C03 D13 #FR 2476-446
Ruminant feed contains urea salt with Krebs cycle acid - 49872C/29
- CURT- 13.02.80 CURTIS H IND INC A96 D21 (A14) #NO 8000-386
Water-based creme rinse compsn. for hair - 51483C/29
- CURT- 14.03.80 CURTIS H IND S A96 D21 (A14) #BR 8001-544
Water-based creme rinse compsn. for hair - 51483C/29
- * DAIL 24.01.80 DAIICHI KOGYO SEIYAKU A25 D13 (D21) *J5 6104-936
Purificn. of polyether poly:ol - 72812D/40
- * DAIL 06.03.79 DAISEI KIKAI KK D13 *US 4289-614
Appts. for sepg. rubbish from bean sprouts - 73539D/40
- DAIL 21.08.79 DAICEL KK A96 D22 F07 (A18) #US 4289-130
Liq. absorbing material for sanitary articles - 57199B/31
- DAIR- 10.05.78 DAIRY DEV LTD A97 D13 = J8 1038-168
Dairy blend butter substitute - 86444B/48
- * DEBA- 14.03.80 DEBAG DEUTSCHE BACK D11 *DE 3009-890
Baking oven - 71940D/40
- * DEGM 16.05.79 DEGREMONT SA D15 *FR 2476-629
Denitrification and nitrification reactors for water treatment - 72226D/40
- DEGS 26.02.80 DEGUSSA AG D25 E33 = BR 8101-075
Crystalline zeolite A powder having defined particle size prepn. - 66301D/37
- DIAS 25.05.77 DIAMOND SHAMROCK CORP D15 E36 J03 X25 (E34) = CA 1107-677
Maintaining efficiency of sea-water electrolysis cells - 45573A/25
- * DINN/ 00 00.80 DINNENDAHL M D15 *DE 3010-351
Vertical counterflow sludge aeration - 71980D/40
- * DINN/ 07.03.80 DINNENDAHL M D15 *DE 3008-791
Aeration system with aeration tube near impeller - 71881D/40
- DNIN 09.02.78 DAINIPPON INK CHEM KK D16 = J8 1038-112
Actinomyces mycelium prodn. - 72507B/40
- DNT0 17.10.74 DAINIPPON TORYO KK D15 J01 = J8 1038-271
Purifying waste water contg. heavy metals - 41197X/22
- DNT0 18.10.74 DAINIPPON TORYO KK D15 J01 = J8 1038-272
Treatment of waste water contg. heavy metals - 42812X/23
- DOKO/ 15.03.80 DOKOUPIL J D18 = BR 8101-510
Leather stretching and drying device - 72111D/40
- DOKO/ 15.03.80 DOKOUPIL J D18 = DE 3010-003
Leather stretching and drying device - 72111D/40
- * DOKO/ 15.03.80 DOKOUPIL J D18 *EP --36-183
Leather stretching and drying device - 72111D/40
- DORO 24.05.78 DORR OLIVER INC D15 J04 = CA 1107-481
Flow distributor for fluid bed reactor - 86324B/48
- DOWC 28.02.77 DOW CHEMICAL CO D23 E14 H04 (H09) = CA 1107-215
Hydrogenation of hydrocarbon(s) in water immiscible liq. phase - 63841A/36
- DOWC 26.12.79 DOW CHEMICAL CO A14 D15 E16 F09 (A97) = J5 6103-148
Water immiscible, acid soluble N-(aminomethyl) carboxamide prepn. - 53623D/30
- * DUIN 26.07.78 DUPHAR INT RES BV C03 D22 E14 *GB 2072-188
Algicidal N,N-di:ethyl-N'-aryl-ethylene-di:amine(s) - 72347D/40
- DUMA- 10.01.80 DUMAS ET INCHAUSPE SOC D25 E17 = J5 6103-156
Continuous prodn. of sulphonated fatty acid methyl ester(s) - 55495D/31
- DUPO 21.10.76 DU PONT DE NEMOURS CO A88 D15 J01 = CA 1107-424
Permselective membrane for ultrafiltration or reverse osmosis - 32460A/18
- DUPO 30.01.78 DU PONT DE NEMOURS CO D18 E16 (E17) = CA 1107-006
Solvent-drying wet animal hides - 29561B/15
- DYNL 27.09.76 DYNAPOL A97 D13 E24 = CA 1107-888
Polymeric dyes for foodstuffs - 25695A/14
- DYNL 17.12.76 DYNAPOL A97 B07 D13 E22 (A96 D21) = CA 1107-728
Red anthraquinone dyes - 30266A/17
- EBAI 14.10.75 EBARA INFILCO KK D15 = J8 1038-273
Heavy metal ions removal from industrial waste waters, sewage, etc. - 37390Y/21
- * EBAI 22.01.80 EBARA INFILCO KK D15 *J5 6102-987
Absorption of organic matters from waste water - 72501D/40
- EHRN/ 16.03.76 EHRNFORD LEM A96 D21 = CA 1107-879
Fine porous glass mesh reinforcement for dental cements - 48861Y/28
- ELRO 25.06.81 ELKEM A/S D12 = NO 8102-166
Butchers powered tool for cleaving meat carcass - 00783D/02
- EMEY 28.06.71 EMERY INDUSTRIES INC D23 E17 H07 = J8 1038-618
Sperm oil substitute - 03126U/03
- * ENDE/ 17.03.80 ENDER J D13 *DE 3010-240
Coffee beverage laced with exotic fruit juice - 71969D/40
- * ENGC 18.03.80 ENGLISH CLAYS LOVER D15 J01 *EP --36-318
Tube pressure filter esp. for clay slurries - 72165D/40
- ENG C 18.03.80 ENGLISH CLAYS LOVER D15 J01 = GB 2072-032
Tube pressure filter esp. for clay slurries - 72165D/40
- ENGH 12.02.80 ENGELHARD MINERALS CORP D15 J01 M25 = US 4289-531
Recovery of precious metals from soln. - 62855D/35
- ENIE- 01.02.80 ENIENTE NAZ IDROCA D16 (D17) = DE 3049-308
Alpha-galactoxidase prodn. from Saccharomyces cerevisiae - 58793D/33
- ERAP 22.02.80 SOC NAT ELF AQUITAINE D21 E19 = FR 2476-484
Hydrating agents for keratinic materials - 47865D/27
- ESMI- 13.09.77 ESMIL BV D15 = IL --55-508
Appts. for distilling water esp. sea water - 24314B/13
- * ESMI- 28.02.80 ESMIL BV D15 *EP --36-225
Sludge scraping appts. for removing floating sludge - 72124D/40
- ESMI- 07.03.80 ESMIL BV D15 J01 = BR 8101-365
Flotation sepn. of flocculated solids in liquid - 70181D/39
- EURO- 22.02.80 EUROTECH INT LTD D15 H03 J01 = FR 2476-714
Pumping apparatus for collecting polluted liquids - 64691D/36
- EYLA- 26.12.78 E-Y LABS INC B04 D16 J04 S03 (S05) = US 4289-747
Immunoassay method having one component bonded to lectin - 50105C/29
- FARB 27.04.77 BAYER AG B03 C02 D13 = IL --54-571
Animal growth stimulant and antioocidial compsns. - 78333A/44
- FARB 15.12.77 BAYER AG B07 C03 D16 E19 = IL --55-421
Stable microorganism preparations for degradation of organic material - 20031B/11
- FARB 19.07.78 BAYER AG A41 C03 D21 E17 = EP G007-101
Polyhydric alcohol prepn. by formose hydrogenation - 05787C/04
- FARB 27 10.78 BAYER AG C03 D21 E17 G04 = US 4289-646
Propellant gas for e.g. hair sprays or insecticidal compsns. - 34868C/20
- FARB 06 03.79 BAYER AG A82 D18 G02 (A25) = US 4289-827
One-component lacquer for leather coating - 66303C/38
- FARB 13.07.79 BAYER AG D23 E15 = US 4289-913

- FARB 19.01.80 BAYER AG A91 D15 (A14) = J5 6105-758
Polyacrylamide anion-exchange resin with quat. ammonium gps. - 55320D/31
- *FARB 03.03.80 VEB CHEMIEKOMB BITT A97 C03 D22 E12 (D15) *DD -149-302
Long-acting biocidal agents for use in water - 71816D/40
- FARB 01.12.76 HOECHST AG A11 D12 (A25 A97) = GB 1599-060
Shaped objects, esp. packaging materials, such as sausage skins - 38502A/22
- FARB 19.01.77 HOECHST AG B04 D16 = GB 1599-372
Alpha-amylase inhibitor for treating diabetes and obesity - 53463A/30
- FARB 29.10.77 HOECHST AG B02 D16 = DS 2860-789
Isolation of cephalosporin C - 37249B/20
- FARB 26.05.78 HOECHST AG A97 D12 (A11 A21 A92) = US 4289-171
Tubular packing film, esp. sausage skins - 87852B/49
- FARB 06.06.78 HOECHST AG A82 D25 G02 (A17 A97) = EP G005-829
Anionically emulsified wax emulsion contg. cationic germicide - 89744B/50
- FARB 15.01.79 HOECHST AG A88 D15 J01 = US 4289-627
Three dimensional filter element esp. for sewage or sludge - 25733C/15
- FARB 03.03.79 HOECHST AG C02 D22 E13 = DD -149-304
Fungicidal 2-phenyl-3,3-bis-triazolyl-propionic acid ester(s) - 69838C/40
- FARB 05.06.79 HOECHST AG D15 = US 4289-628
Solids liquid separation - 90335C/51
- FARB 19.01.80 HOECHST AG B05 C03 D22 E16 (E14) = J5 6104-862
Antimicrobial isothiourenium ether and polyether derivs. - 55319D/31
- FARB 19.01.80 HOECHST AG B04 D16 = J5 6104-897
Polypeptide with amino acid sequence of primate pro:insulin - 55640D/31
- FARB 16.02.80 HOECHST AG B04 D16 = SE 8101-004
Microbiologically prep'd. human interferon - 62879D/35
- FARB 16.02.80 HOECHST AG B04 D16 = SE 8101-005
Microbiologically produced interferon poly:peptide - 64373D/36
- *FARB 08.03.80 HOECHST AG A97 D12 (A14) *DE 3008-920
Tubular cellulose hydrate sausage skin - 71884D/40
- *FATT- 14.03.80 SOC FATTO FOLLI GIU D11 *DE 3030-757
Automatic dough ring laying machine - 72024D/40
- FERN/ 03.03.77 FERNANDOPULLE P D D16 X25 = GB 1599-044
Solar still for brine - 82411C/46
- *FIND- 06.03.80 PRODUITS FINDUS SA D11 *EP --36-088
Machine to roll up pancakes, croissants, meat rolls etc. - 72061D/40
- FINN/ 15.03.80 FINNAH J D13 = DE 3010-013
Ultrahigh temp. treatment of prods. contg. bacteria - 72074D/40
- *FINN/ 15.03.80 FINNAH J D13 *EP --36-124
Ultrahigh temp. treatment of prods. contg. bacteria - 72074D/40
- FIRM 29.01.74 FIRMENICH SA B03 C02 D23 E15 = US 4289-659
Organoleptic oxygenated alicyclic derivs - 52777W/32
- *FISC- 19.03.80 FA FISCHHAUS HOLST D12 *DE 3010-473
Mackerel treatment to achieve smoked salmon taste - 71990D/40
- FIVE 04.10.79 FIVES-CAIL BABCOCK D17 = US 4289-734
Rotary drum for liq.-solid mass or heat transfer - 31198D/18
- FRAU 28.12.77 FRAUNHOFER GESELLSCHAFT A96 B04 D16 S03 (A26 S05) = CA 1107-208
Stabilised, insolubilised biochemical products - 31618B/17
- FREU 04.12.76 FREUDENBERG C A88 D15 F04 J01 = CA 1107-580
Osmotic semipermeable matted fibre web - 42401A/24
- FRIT- 19.09.79 FRITZSCHE DODGE & O D23 E15 = US 4289-658
Subst. cyclic alcohol(s), fragrance cpds. - 29035D/16
- FRIT- 13.03.80 FRITZSCHE DODGE OLC D23 E15 = WP 8102-518
3-Methylene-4-halo-1,1-di:methyl-cyclohexane(s) - 47689D/26
- FRRR 21.09.77 FERRERO P & CIA SPA D13 = CA 1107-129
Filled floatable spherical food prod. - 08058B/05
- FRYM- 01.03.74 FRYMASTER CORP D13 = US 4289-477
Foodstuffs frying appts - 47833U/34
- FUJI 06.03.80 FUJISAWA PHARM KK B05 C03 D16 *WP 8102-574
1,4-Naphthoquinone(s) and salts of their carboxyl Gps. - 73715D/40
- FUJI- 10.08.79 FUJIZOKI SEIYAKU B04 D16 J04 = J8 1038-198
Colorimetric determ. of micro-amts. of e.g., cholesterol in serum - 31644D/18
- FUJI- 21.08.79 FUJI SANITARY INDS KK A96 D22 F07 (A18) #US 4289-130
Liq. absorbing material for sanitary articles - 57199B/31
- FUNK/ 13.09.78 FUNK M D15 = EP G008-810
Active sludge treatment of waste water - 20621C/12
- GADD/ 05.03.80 GADDERK D15 E37 *WP 8102-569
Heavy metals removal from acidic aq. solns. - 73713D/40
- GCDE- 24.02.76 G-C DENTAL IND A96 D21 (A14) = J8 1037-965
Hardening soln. for ionomeric dental glass cements - 61434Y/35
- GENM 30.04.80 GENERAL MILLS INC D11 *US 4289-470
Dough ribbons shaped as lasagna strands - 73468D/40
- GENO 05.12.72 GENERAL FOODS CORP D13 #CA 1107-124
Xylitol-contg. chewing gum compsn - 57118W/34
- GENO 26.10.76 GENERAL FOODS CORP C03 D13 *CA 1107-123
Prod'n. of intermediate-moisture pet foods - 71806D/40
- GENO 15.03.77 GENERAL FOODS CORP D13 = CA 1107-125
Two-component chewing gum, esp. bubble gum - 67030A/38
- *GENO 25.02.80 GENERAL FOODS FRANC D13 *US 4289-790
Effervescing and crunchy chocolate candy - 73620D/40
- *GENO 12.03.80 GENERAL FOODS CORP D13 *US 4289-794
Gasified candy with pronounced popping sensation when eaten - 73624D/40
- *GERA/ 26.03.79 GERASIMENKO A A D22 E14 *SU -796-348
Structures protection against fungal attack - 73398D/40
- GETF- 26.02.80 GETFRESH FOOD LTD D13 = FR 2476-448
Formation of filled food products - 00360D/01
- GIVA 11.08.77 GIVAUDAN L & CIE SA D13 E13 T05 = DS 2860-774
4-Cyano-tetra:hydro-furan-3-one(s) and 4-hydroxy derivs. - 14604B/08
- GLSM 05.11.79 MARVIN GLASS & ASSO D13 = SE 8104-121
Flat disc confectionery novelty - 40173D/22
- GOOR 04.04.77 GOODRICH B F CO A14 D22 (A96) = CA 1107-895
Interpolymers of increased water-absorption capacity - 65319A/37
- GRAC 22.02.80 GRACE W R CO D25 E16 (D15) = FR 2476-641
Sec. amine prodn. from olefin cpds. - 47872D/27
- GRAC 22.02.80 GRACE W R CO A26 D15 E16 G02 (E14) = FR 2476-642
Alkylation of poly:amine for mfr. of surfactants, softeners, etc. - 47873D/27
- GRAC 22.02.80 GRACE W R CO A14 D25 G02 (D15) = FR 2476-655
Prepn. of poly:amine:amide polymer - 47871D/27
- GROT/ 13.12.79 GROTZ W D15 J02 = DK 8000-515
Agitator with shaft contg. holes - 41523C/24
- GUNT/ 17.03.80 GUNTER E D16 = DE 3010-183
Farmyard manure gas mfr. - 72052D/40
- *GUNT/ 17.03.80 GUNTER E D16 *EP --36-065
Farmyard manure gas mfr. - 72052D/40
- HAAS/ 27.02.80 HAAS F D11 = FR 2476-442
Wafer baking compartment with lateral sealing strips - 64588D/36
- HAIM 14.12.79 ALPMA ALPENLAND MAS D13 = DK 8005-293
Continuous sepn. of whey from cheese - 46160D/26
- *HALL/ 25.06.77 HALLACK R D D15 J01 M14 *US 4289-616
Apparatus for removal of pptes. from water - 73540D/40
- *HANO- 01.09.76 HANOVER RES CORP D15 *US 4289-578
Recovery of clean water and solids from aq. solids - 73516D/40
- *HARA/ 18.01.80 HARA K D15 J01 *J5 6102-937
Compsn. for removing impurities from muddy water - 72492D/40
- *HARA/ 19.01.80 HARA K D15 J01 *J5 6102-938
Filtration material for treatment of muddy water - 72493D/40
- HENK 05.02.77 HENKEL KG AUF AKTIEN D21 E16 = GB 1599-324
Hair decolourising product based on peroxide cpds. - 58758A/33
- HENK 26.06.78 HENKEL KG AUF AKTIEN D23 E13 = EP G006-572
13,15-Di:oxa-bi:cyclo-(10,50)-heptadecane cpds. - 02158C/02
- HENK 12.08.78 HENKEL KG AUF AKTIEN D23 E15 (D21 D25) = US 4289-660
Esters of mixed tri:cyclo-decane carboxylic acid cpds. - 15093C/09
- HENK 26.03.79 HENKEL KG AUF AKTIEN A97 D25 = US 4289-642
Textile detergents with sizing action - 75421C/43
- HENK 13.12.79 HENKEL KG AUF AKTIEN D21 E24 = DK 8004-897
Oxidn. dye-based hair-dyeing compsn. - 48041D/27
- HENK 26.02.80 HENKEL KG AUF AKTIEN D25 E33 = BR 8101-075
Crystalline zeolite A powder having defined particle size prepn. - 66301D/37
- HENK 01.03.80 HENKEL KG AUF AKTIEN A23 D25 F06 (A97) = DE 3007-930
Tert. amino gp.-contg. polyester and salt derivs. - 68257D/38
- *HENK 01.03.80 HENKEL KG AUF AKTIEN D21 E24 *DE 3007-997
Beta-amino-bis:beta-hydroxy:ethyl-amino-phenoxy ethanol prepn. - 71870D/40
- HENK 01.03.80 HENKEL KG AUF AKTIEN D25 = DE 3007-998
Dish-washing compsns. - 55410D/31
- *HENK 12.03.80 HENKEL KG AUF AKTIEN D18 *BR 8101-432
Liquid agent for treatment of shoes and leather - D/40
- HENK 13.03.80 HENKEL KG AUF AKTIEN D21 E14 (E13) = DE 3009-542
Deodorant cosmetic compsn. - 72082D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D22 E19 *DE 3009-543
Deodorant cosmetic compsn. e.g. sprays and sticks - 71912D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D22 E14 (E13) *DE 3009-544
Deodorant cosmetic compsns. e.g. sprays - 71913D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D22 E19 *DE 3009-545
Deodorant cosmetic compsn. e.g. spray - 71914D/40
- HENK 13.03.80 HENKEL KG AUF AKTIEN D21 E19 = DE 3009-546
Deodorant cosmetic compsn. - 72081D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D22 E13 *DE 3009-547
Deodorant cosmetic compsns. e.g. sprays and sticks - 71915D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D21 E19 *EP --36-134
Deodorant cosmetic compsn. - 72081D/40
- *HENK 13.03.80 HENKEL KG AUF AKTIEN D21 E14 (E13) *EP --36-135
Deodorant cosmetic compsn. - 72082D/40
- *HENK 17.03.80 HENKEL KG AUF AKTIEN A97 D25 E33 (E11) *EP --36-162
Low phosphate controlled foam washing agent - 72101D/40
- *HERC 08.09.78 HERCULES INC D23 E16 *US 4284-814
Propene trimer or tetramer oxime mixts. - 73400D/40
- HERC 10.03.80 HERCULES INC D23 E19 #DE 3009-087
Perfume compsns. contg. oxime cpds. - 73449C/42

- * HERO/ 11.12.79 HEROLZER R H D12 *US 4288-888
De-feathering game fowl by rotating picking head - 73403D/40
- * HIEJ 21.01.80 HITACHI PLANT ENG CONST D15 *J5 6102-911
Sludge scraper for de-sedimentation tank - 72472D/40
- HOUS- 28.01.80 HOUSE SHOKUHIN KOGY D13 = J5 6104-998
Prodn. of porous saccharide granules - 64539D/36
- * HUBE 10.07.80 HUBER J M CORP D15 E37 *US 4289-629
Removing chloride and carbonate from strongly alkaline solns. - 73547D/40
- * IBM 09.05.80 IBM CORP D15 M13 *US 4289-594
Treatment of liq. waste compns. contg. copper and complexing agent - 73524D/40
- ICIL 30.03.78 ICI AMERICAS INC D17 E17 = CA 1107-764
Mannitol-rich soln. mfr. from glucose and mannose and/or fructose - 75701B/42
- ICIL 04.12.79 IMPERIAL CHEM INDS LTD D25 E34 (E19) = DK 8005-008
Liq. detergent compsn. of low pour point - 44457D/25
- * ICIL 31.01.80 IMPERIAL CHEM INDS LTD D22 E16 F09 (D15) *EP --36-055
Protecting aq. media from microbial fouling - 72048D/40
- * ICIL 07.03.80 IMPERIAL CHEM INDS LTD D16 *BR 8101-330
Prodn. of genetically-modified microorganism - D/40
- * IGTE 18.01.80 INST OF GAS TECHNOL D15 H06 *US 4289-625
Hybrid bio:thermal gasification - 73545D/40
- IIZU/ 30.10.78 IIZUKA H C03 D16 = J8 1038-116
Insecticide Meledine mfr. - 43994C/25
- * IKUS/ 06.03.80 IKUSHIMA K B05 C03 D16 *WP 8102-574
1,4-Naphthoquinone(s) and salts of their carboxyl Gps. - 73715D/40
- ILLI- 07.05.80 ILLINOIS WATER TREA D16 = US 4289-853
Inactivation of enzymes - 74004B/41
- IMPU- 01.07.75 VEB KOMB IMPULSA D13 S03 T06 = AT 7604-327
Butterlike products of low fat content - 59749X/32
- IMPU- 07.06.77 VEB KOMB IMPULSA D13 = AT 7804-114
Spreadable, low-fat dairy product mfr. from cream - 56880A/32
- INFL 07.10.75 INT FLAVORS & FRAGR INC D23 E15 = DS 2643-062
Fragrant methyl hydroxyamyl-cyclohexene carboxaldehyde prepn. - 27500Y/16
- * INFL 24.08.77 INT FLAVORS & FRAGR INC B03 D13 E13 (D21) *US 4289-700
2-(1-Methyl-1-butenyl)-3-methyl-1,3-dioxolan - 73584D/40
- * INFL 20.10.78 INT FLAVORS & FRAGR INC D18 E15 *US 4289-146
Augmenting or enhancing aroma or taste of tobacco - 73439D/40
- * INFL 20.10.78 INT FLAVORS & FRAGR INC B05 D13 E14 (D23) *US 4289-661
Augmenting aroma of perfumes - 73565D/40
- * INFL 20.10.78 INT FLAVORS & FRAGR INC B02 D13 E13 (D23) *US 4289-705
1,3,5,5-Tetra:methyl-2-oxa-bi:cyclo-(2,2,2)-octane - 73587D/40
- * INFL 26.10.79 INT FLAVORS & FRAGR INC B05 D18 E15 (D13 D23) *US 4289-145
Augmenting aroma or taste of smoking tobacco - 73438D/40
- * INMR 17.03.80 INST MERIEUX B04 D16 *EP --36-372
Partially deacylated N-acyl ganglioside(s) and glyco:lipid(s) - 72187D/40
- INOT- 25.02.80 IND OTTICHE RIUNITE D22 = FR 2476-489
Sterilisation of contact lenses - 64590D/36
- INPL 17.05.78 INT PLAYTEX CORP A11 D22 (A96) = CA 1107-268
Particulate water-insoluble CMC prepn. - 84161B/47
- INSP 05.12.79 INST PASTEUR B04 D16 = DK 8005-186
Microparticles having a surface formed of crosslinked protein - 48129D/27
- INTE- 21.09.78 INTERMEDICAT GMBH A96 D22 = EP G010-171
Laminated foil for stomatic excretion disposable bags - 33038C/19
- INTE- 15.01.80 INTEROX CHEM LTD A91 D15 J01 M11 = J5 6102-993
Oxidative removal of cyanide from aq. alkaline soln. - 55474D/31
- * INTE- 29.02.80 INTERDRUCK C03 D13 (D16 E19) *DD -149-307
Organic solvent-contg. waste air purificn. - 71818D/40
- * INTO 24.11.75 INT PAPER CO A96 D22 (A26) *US 4289-125
Polymeric sheets of silicone rubber - 73435D/40
- * IPOS- 29.08.80 IPOS GES PROSTHESEN D22 *AT 8004-386
Moulded plaster of paris bandage for upper thigh - D/40
- * ITAL- 07.03.80 ITAL INST TECN ALIM D16 *BR 8001-360
Prodn. of alcohol from bamboo - D/40
- * ITAL- 07.03.80 ITAL INST TECN ALIM D16 *BR 8001-361
Prodn. of alcohol from bamboo - D/40
- * ITAL- 07.03.80 ITAL INST TECN ALIM D16 *BR 8001-362
Prodn. of alcohol from bamboo - D/40
- ITIL- 22.11.78 ITILTD D15 = US 4289-423
Protective skirt for tabular iceberg - 43808C/25
- JACC- 22.11.77 JACCARD CORP D12 = CA 1107-178
Meat tenderising tool - 42673B/23
- JAPC 18.05.78 NIPPON SHOKUBAI KAGAKU A96 B05 D22 (A14 B07) = J8 1038-129
Thickener for wet pack compsn. - 02674C/02
- JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A88 D18 F04 (A11) = CA 1107-171
Mfg. synthetic fibre sheet for cigarette filter tips - 18063B/10
- KALI 13.03.80 KALI-CHEMIE AG C03 D13 E36 (C04) = DE 3009-622
De-fluoridation of phosphoric acid - 40229D/23
- KALI 22.03.80 KALI-CHEMIE AG B05 D23 E11 (D13 D21) = GB 2072-189
Purifying lecithin by extrn. with gas under hyper critical conditions - 53458D/30
- KALL/ 05.03.80 KALLENIOUS G P B04 C03 D16 S03 = WP 8102-520
Therapeutic and diagnostic compsns. - 68337D/38
- KANE 30.06.78 KANEBO KK D21 E17 (E34) = J8 1038-124
Storage stable foamable bath salts - 15381C/09
- KANE 15.12.78 KANEBO KK B04 D16 (D13 D17) = J8 1038-193
Enzyme-contg. membrane prodn. - 54519C/31
- * KANE 08.03.80 KANEBO KK D21 E13 *GB 2072-014
Stable cosmetic emulsions - 72301D/40
- * KANE 15.03.80 KANEBO KK D21 *EP --36-199
Powder or cake make/up compsns. - 72116D/40
- KATA- 05.04.78 KATAYAMA CHEM WORKS A97 C03 D22 F09 (A25 D15) = US 4289-581
Microbicide for industrial cooling water and paper pulp - 77643B/43
- * KATA- 21.01.80 KATAYAMA KAGAKU KOG A97 D15 (A14) *J5 6102-997
Suppressing calcium phosphate scale formation in industrial water - 72502D/40
- * KATA- 26.01.80 KATAYAMA KAGAKU KOG C03 D22 E16 *J5 6104-804
Industrial sterilisation process - 72746D/40
- * KATA- 28.01.80 KATAYAMA KAGAKU KOG D15 M24 *J5 6105-793
Processing cooling water effluent from damped down blast furnace - 72945D/40
- KEND 05.12.79 KENDALL CO A96 B04 D22 L01 (A18 B07) = DK 8005-214
Transparent water absorbing polymer mixts. - 27279D/16
- KERJ 15.12.76 KERNFORSCHUNGS JULICH B07 C03 D16 K08 = US 4289-756
Prodn. of cells loaded with active substance - 47931A/27
- * KIRK- 22.05.80 KIRK CHEMICALS A/S D13 *BE -888-897
Prepn. of high quality ice cream with fat added after a first mixing - 71797D/40
- KNVS 23.01.78 GKSS-FORSCHUNG GEES D15 = IL --56-478
Water desalination and purification - 54635B/30
- * KOBA/ 19.01.80 KOBAYASHI J D15 *J5 6102-929
Gas liquid contacting device - 72485D/40
- * KOBA/ 11.03.80 KOBAYASHI M D15 *BR 8001-422
Purification of effluent water - D/40
- KOGA- 30.11.79 KOGAI BOSHI SOGO D15 X25 = US 4289-599
Electrolytic prodn. of alkaline and acidic water - 42615D/24
- KRFT 30.11.77 KRAFT INC D13 = CA 1107-130
Cheese-making process using concentrate of protein fat and salts - 25998B/14
- KURE 01.01.76 KUREHA KAGAKU KOGYO A97 B04 D16 = US 4289-688
Polysaccharides bonded to proteins - 46972Y/27
- KURE 20.05.77 KUREHA CHEM IND KK A96 D21 L02 (A18 A28) = CA 1107-582
Compsn. contg. sintered apatite and resin - 86473A/48
- * KURK 21.01.80 KURITA WATER IND KK D15 *J5 6102-910
Scraper for removing sludge from bottom of pond - 72471D/40
- * KURS 21.01.80 KURARAY KK A96 D21 *J5 6103-103
Dental cavity-sealing agent - 72505D/40
- KYOW 19.04.77 KYOWA HAKKO KOGYO C D16 E17 S03 S05 = GB 1599-384
Glycerol-oxidase, prepd. from Aspergillus or Neurospora microorganism - 80437A/45
- KYOW 20.04.78 KYOWA HAKKO KOGYO B04 D16 = J8 1038-159
Antibiotic DC-11 from Micromonospora sp. NRRL 11289 - 79569B/44
- * LAND- 08.01.79 LAND OLAKES INC D13 *US 4289-793
Mfr. of large rectangular cheese blocks - 73623D/40
- * LASC/ 07.03.80 LASCHETE D13 *DE 3008-836
Food (supplement) extract for liq. consumption - 71883D/40
- * LEAF- 15.11.79 LEAF PROTEINS INC D18 *US 4289-147
Mfg. smoking tobacco prod. with good flavour - 73440D/40
- * LEAT= 04.01.79 LEATHER SHOE IND D18 E17 *SU -794-076
Prodn. of oiling compsn. for leather - 73138D/40
- * LENC/ 22.02.80 LENCOT G D11 *FR 2476-443
Tool for cutting paste blanks for pizzas art bases etc. - 72210D/40
- * LENL 05.01.79 LENINGRAD FORESTRY ACAD A88 B04 D23 (B07 D21) *SU -794-018
Biologically active phytosterol emulsifier prepn. - 73090D/40
- LINM 11.12.79 LINDE AG D15 = DK 8005-266
Water purificn. by ozone - 49820D/28
- * LINM 10.03.80 LINDE AG D15 *DE 3009-151
Inoculant waste water nitrification sludge prepn. - 71898D/40
- LIOR/ 27.04.79 LIORETTE P D12 = FR 2476-444
Machine to strip skin, sinew etc. from meat - 34403D/20
- LIOY 06.04.77 LION DENTIFRICE KK D13 E13 = GB 1599-365
Spiro-5-isopropyl-bi:cyclo(3,1.0)hexane-2,2' oxirane isomers - 76755A/43
- * LIOY 23.01.80 LION DENTIFRICE KK A96 D21 *J5 6104-811
Compsn. for oral use e.g. tooth-paste - 72750D/40
- LISH/ 21.03.78 LISHMAN P D18 F07 = CA 1107-487
Fabric made of twisted fur strip - 72169B/40

* LOCA- 22.09.78 LOCATION COUCHES HO D22 *CA 1107-411
Absorbent bed pad - 71811D/40

MACH- 17.03.78 MACHIDA SHIGYO KK D13 = J8 1038-107
Frozen custard pudding prepn. - 81729B/45
MAGG/ 25.01.80 MAGGESIL A96 D21 = J5 6104-810
Shaving compsn. contg. cationic ammonium cpd. or polymer - 62687D/35
* MAIA/ 12.03.80 MAIA N A D15 *BR 8001-447
Continuous charge and discharge anaerobic digester - D/40
* MAJA- 29.05.80 MAJA-MASCH SCHILL H D12 *BE -888-858
Machine for stripping skin from meat, bacon, fish etc. - 71788D/40
* MARU- 16.01.80 MARUHO KK B04 D16 *J5 6102-798
Reagent for determining pepsin activity - 72455D/40
* MARZ 19.01.80 MARUKO SEIYAKU KK B04 D16 (B02) *J5 6102-797
Reagent for determining the activity of enzymes - 72454D/40
* MASO/ 23.04.79 MASON R D F D22 *US 4289-122
Ankle movement control brace - 73434D/40
* MASW 00.00.76 MASCH BUCKAU WOLF R D15 *DE 3008-725
Water treatment system - 71874D/40
MATU 31.07.72 MATSUSHITA ELEC IND KK D14 = DS 2338-504
Domestic fruit juice extractor with centrifugal separator - 78372W/47
* MATU 14.04.78 MATSUSHITA ELEC IND KK D14 X27 *CA 1107-170
Vegetable peeler with rotating slotted concave disc - 71808D/40
* MAYR 10.03.78 MARYLAND CUP CORP D13 *US 4289-791
Ice cream cone with sanitary jacket - 73621D/40
* MAZN 27.02.80 MARUZEN OIL KK A13 B04 C03 D22 (A96 A97) *FR 2476-441
Poly para-hydroxy styrene(s) - 72209D/40
* MAZN 08.03.80 MARUZEN KASEI CO LTD D21 E13 *GB 2072-014
Stable cosmetic emulsions - 72301D/40
MECC- 13.05.77 MECCANICA DI REFFO C03 D13 J04 = GB 1599-003
Pelletiser drum quick coupling device - 84354A/47
* MEDE/ 08.02.80 MEDEIROS C S D15 E17 *BR 8001-295
Methane gas digester - D/40
MEIJ 23.01.80 MEIJI SEIKA KAISHA B04 D16 *J5 6103-194
Antitumour substance cw-5 - 72543D/40
MEIP 04.11.77 MEIJI NYUGYO KK D14 J04 = GB 1599-151
Appts. for easily-wettable granules prodn. from powder - 50037B/27
* MERE 20.05.77 MERCK PATENT GMBH D21 E24 (E23) = GB 1599-010
Hexadiene acetal cpds. - 84121A/47
MERI 03.12.79 MERCK & CO INC B04 D16 = DK 8005-127
Lyophilisation of conc. virus compsn. - 44502D/25
MERI 03.12.79 MERCK & CO INC B02 C02 D22 (D13) = DK 8005-129
1-Carba:de:thia:pen-2-em-3-carboxylic acids - 44425D/25
MERI 03.12.79 MERCK & CO INC B02 C02 D13 E13 (D22) = DK 8005-130
Substd. penem-3-carboxylic acid derivs. - 32459D/18
MERI 22.04.80 MERCK & CO INC C02 D13 = US 4289-784
N-Mono and N,N'-di:substd.-pyromellitic di:imide cpds. - 33136C/19
* METB 02.12.76 METAL BOX CO LTD D13 *GB 1599-027
Appts. for mfg. arctic roll - 72259D/40
* METG 28.04.77 METALLGESELLSCHAFT AG D15 J01 = AT 7802-611
Ultrafiltration of liquid with pressurised closed loop recirculation - 78364A/44
* MILE 10.12.79 MILES LABORATORIES INC B04 D16 J04 = DK 8005-249
Tester for detecting urea contains urease - 50021D/28
* MINN 29.04.80 MINNESOTA MINING CO A96 D22 E14 S03 (A23 S05) *US 4289-088
Sterilisation indicator for steam autoclave - 73432D/40
MITK 22.01.80 MITSUI TOATSU CHEM INC D25 E23 *J5 6103-246
Fluorescent whitening dye for detergent - 72577D/40
MITN 24.01.80 MITSUBISHI GAS CHEM IND D23 E17 *J5 6104-840
Refining fatty acid - 72761D/40
MITN 25.01.80 MITSUBISHI GAS CHEM IND D23 E17 *J5 6104-841
Refining fatty acid obtd. from alcohol and carbon mon:oxide - 72762D/40
* MITO 22.05.78 MITSUBISHI HEAVY IND KK D16 E17 H09 = J8 1038-117
Methane-producing fermentation of organic waste - 04481C/03
MITO 22.01.80 MITSUBISHI HEAVY IND KK D22 J01 *J5 6102-926
Detecting life of absorbing agent in deodorisation appts. - 72484D/40
* MITQ 21.01.80 MITSUBISHI ELECTRIC CORP D15 *J5 6102-923
Water still for adsorbing water from atmos. - 72481D/40
MITQ 21.01.80 MITSUBISHI ELECTRIC CORP D15 *J5 6102-924
Appts. for collecting fresh water from e.g. desert atmos. - 72482D/40
MITQ 21.01.80 MITSUBISHI ELECTRIC CORP D15 *J5 6102-925
Water producing device uses atmospheric water content as feed - 72483D/40
MITQ 28.01.80 MITSUBISHI ELECTRIC CORP D15 *J5 6105-724
Producing water from atmosphere in desert areas etc. - 72915D/40
* MITR 28.01.80 MITSUBISHI RAYON KK D15 *J5 6105-794
Removing sulphate and heavy metal ions from water - 72946D/40
MITR 28.01.80 MITSUBISHI RAYON KK D15 *J5 6105-795
Phosphate(s) and heavy metals removal from waste water - 72947D/40
* MLCW 28.12.77 BYK-MALLINCKRODT CH A96 B04 D16 S03 (A26 S05) = CA 1107-208
Stabilised, insolubilised biochemical products - 31618B/17
* MOBA- 09.12.77 MOBA HOLDING BARNEV D12 = EP G002-552
Device for enclosing and modelling a fowl - 48335B/26

* MOHN/ 03.03.80 MOHNKE H D12 *DD -149-306
Fish processing transport system - 71817D/40
* MOHR/ 05.03.80 MOHR K H D16 *DD -149-376
Egg liqueur prepn. from pasteurised freeze-stored egg yolk - 71843D/40
* MOHR/ 05.03.80 MOHR K H D16 *DD -149-377
Storage-stable egg liqueur prepn. - 71844D/40
* MOMI= 27.07.78 MOSCOW MINING INST D18 F06 J02 #CA 1107-718
Mixing device - 18662C/11
MONS 02.07.73 MONSANTO CO B04 C03 D16 = CA 1107-211
Culture of animal cells in vitro - 03818W/03
MONS 09.02.77 MONSANTO CO A88 D15 E14 J01 (A17) = IL --53-993
Hollow fibre membranes of ethylene copolymers - 38324A/21
MONS 04.04.77 MONSANTO CO B05 D21 E17 = CA 1107-651
Dental plaque inhibiting compositions - 73163A/41
MONS 04.04.77 MONSANTO CO B05 D21 E17 = US 4289-753
Dental plaque inhibiting compositions - 73163A/41
MONS 22.08.77 MONSANTO CO A25 D25 (A97) = CA 1107-746
Polymeric acetal carboxylate detergent builders - 18418B/10
* MONS 20.06.80 MONSANTO CO D16 *US 4289-854
Suspension culturing cells in flask - 73659D/40
* MPFO- 25.06.79 M P FOOD TECHN INC D13 (D16) *US 4289-788
Instant powdered yogurt compsns - 73618D/40
* MPFO- 25.06.79 M P FOOD TECHN INC D13 *US 4289-789
Instant powdered yogurt drink compsn. - 73619D/40
* NADI 12.03.80 NATIONAL DISTILLERS CORP D16 *BR 8101-391
Prodn. of ethanol by continuous fermentation - D/40
NAGA 17.04.79 VEB KOMBINAT NAGEMA D11 = AT 8000-941
Waffle machine feeder - 66183C/38
* NAGA 07.03.80 VEB KOMBINAT NAGEMA D12 *DE 3045-065
Frozen meat slicing guillotine - 72029D/40
NAGA- 08.04.77 NAGATANIEN HONPO KK A92 D13 = CA 1107-562
Japanese rice snack - 74645A/42
* NATH/ 11.03.80 NATH G A96 D21 S05 *DE 3009-171
Short-wave hardening dental plastics - 71899D/40
NATR 11.01.79 NATIONAL RES DEV CORP D22 E36 = US 4289-728
Sterilisation treatment esp. of spore forming microorganisms - 40016C/23
NBUN 07.09.79 NIPPON BUNKO KOGYO KK B04 D16 = J8 1038-200
Bile acid determ. - 40779D/23
NEST 21.01.74 SOC PROD NESTLE SA B05 D16 E16 V06 = J8 1038-583
Sepg. leucine and isoleucine from aq. soln. - 49354W/30
NEST 16.03.78 SOC PROD NESTLE SA D16 (D13) = IL --56-745
Stable plasmid- contg. Lactobacillus species culture prodn. - 70242B/39
NEST 14.09.78 SOC PROD NESTLE SA D13 = CA 1107-128
Coffee extract deacidification - 22433C/13
NEST 28.12.79 SOC PROD NESTLE SA D16 E16 (D13) = J5 6103-201
Enzymatically produced oligomer contg. L-methionine - 50272D/28
NEST 12.03.80 SOC PROD NESTLE SA D13 = BR 8101-437
Moulding composite confection on ice cream etc. - 67971D/38
NEUH- 28.06.79 PHARMAGLAS NEUHAUS B04 D16 = AT 8001-746
Bacteraemia detection appts. - 73874C/42
NIED/ 15.12.79 NIEDECKER H D12 = DK 8005-323
Sausage machine filler tube - 46167D/26
* NIKK- 23.01.80 NIKKISO KK D22 E17 *J5 6104-672
Blood cleaner sterilisation - 72697D/40
* NINB- 21.01.80 NINBEN KK D13 (D16) *J5 6102-755
Mature dried bonito prepn. - 72446D/40
* NIOF 24.01.80 NIPPON OILS & FATS KK A96 D21 E19 *J5 6104-999
Shampoo compsn. esp. for use in hard water - 72844D/40
NIPE 21.01.80 NIPPON PETROCHEM KK D23 E15 = J5 6103-107
Substd. norbornanone acetal(s) used in perfume compsns. - 53634D/30
* NIPE 07.03.80 NIPPON PETROCHEM KK D23 E13 *EP --36-147
Acyl-norbornane acetal(s) - 72090D/40
NIPK 15.07.76 NIPPON KAYAKU KK A96 D21 E36 (A14) = J8 1037-964
Aq. hardening soln. for dental cement - 20230A/11
* NISB 28.12.79 JAPAN TOBACCO & SALT PUB D23 E13 *J5 6103-184
Di:epoxy:ionone derivs. useful as flavourants etc. - 72541D/40
NISO 24.03.78 NIPPON SHOKUHIN KAK KK D13 = J8 1038-089
Rice cake prepn. - 81728B/45
NISS 22.01.80 NISSHIN FLOUR MILL KK D11 E13 (E16) = J5 6102-776
Improving agent for bread contg. no oxidising agent - 55582D/31
NISW 13.09.79 NISSHIN OIL MILLS KK D13 = J8 1038-167
Coffee whitener not causing feathering - 41212D/23
* NISY 18.01.80 NIPPON SYNTH CHEM IND A96 D22 (A14) *J5 6103-112
Non-peeling plaster - 72511D/40
* NISY 18.01.80 NIPPON SYNTH CHEM IND C02 D22 E13 *J5 6103-170
Germicidal 2-piperidino-3-substd. benzoyl propionic acids - 72535D/40
* NITE- 08.03.80 JAPAN TECTRON INSTR D16 S03 *EP --36-274
Identifying microorganisms by impedance measurements - 72142D/40
* NITL 19.01.80 NITTO ELECTRIC IND KK A96 D22 (A14) *J5 6103-117
Stable base material for plaster - 72513D/40
NITT 28.04.78 NITTO CHEM IND KK A41 D16 E16 = J8 1038-118
(Meth)acrylamide prepn. by (meth)acrylonitrile hydrolysis - 75565B/42

- NMHB 13.04.78 NORDISCHER MASCHINE D12 #GB 1599-268
Fish processing machine conveyor - 59939B/33
- NMHB 30.10.78 NORDISCH MASCH R BAADER D12 = CA 1107-016
Fish filleting machine - 66409B/37
- NODA 29.09.77 NODA INST SCI RES B04 D16 = US 4289-852
Spore-formation inducing factor SF-1 - 43129B/23
- *NOVA- 10.03.80 NORDISKA VATTENPROJ D15 *WP 8102-570
Sheet material for rotating biological contactor - 73714D/40
- *NOVO= 09.10.78 NOVOMOSKOVSK CHEM D25 E17 *SU -794-002
Prepn. of alkyl sulphate detergents - 73080D/40
- NSTA- 19.09.72 NORTH STAR RES & DE A26 D15 J01 (A91) = DS 2346-659
Reverse osmosis membranes from polyethylene imine film - 25323V/14
- NURS/ 27.02.80 NURSE WA D17 = FR 2476-502
Three roller extraction mill - 64601D/36
- *ODER/ 18.03.80 ODERSKY P D13 *DE 3010-325
Garlic-flavoured, meat-spicing and salad dressing compsn. - 71977D/40
- OJIP 12.12.78 OJI PAPER KK D16 E17 F09 J01 (D15 E13 E36) #CA 1107-412
Deodorisation of fluids contg. sulphur cpds. - 75097C/42
- *OKAY- 28.01.80 OKAYAMA-KEN KANKYO A81 D15 J04 *J5 6105-743
Powder e.g. dried dust and sludge granulation - 72930D/40
- ONOD/ 17.10.78 ONODERA F D21 (D16) = J5 5053-213
Boiling and fermenting water oats - 72972D/40
- *ONOD/ 17.10.78 ONODERA F D21 (D16) *J8 1038-125
Boiling and fermenting water oats - 72972D/40
- OREA 06.04.76 L'OREAL SA A14 D21 (A96) = US 4289-752
Copolymer or higher polymer of substd. (meth)acrylamide - 72452Y/41
- OREA 12.08.76 L'OREAL SA A96 D21 E24 = CA 1107-724
Water-sol. cationic polymer dyestuffs - 12277A/07
- OREA 19.08.77 L'OREAL SA D21 E14 (E12) = US 4289-495
Hair colouring compsn. contg. oxidn. dyes - 14189B/08
- OREA 25.01.80 L'OREAL SA D21 E17 = J5 6104-808
Oil solns. of essential fatty acids - 56976D/32
- OREA 18.03.80 L'OREAL SA A96 D21 = BE -887-982
Two/phase compsn. for skin or hair - 70355D/39
- *OREA 24.03.80 L'OREAL SA A96 B05 D21 E19 *GB 2072-016
Stable oil-in-water emulsion - 72303D/40
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8005-171
Hybridoma ATCC CRL-8020 - 46284D/26
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 = DK 8005-172
Mono:clonal antibody against particular human thymocyte antigen - 48100D/27
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8005-173
New mono:clonal antibody against particular human thymocyte antigen - 48101D/27
- ORTH 04.12.79 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8005-174
Hybridoma ATCC CRL-8014 - 46285D/26
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6103-115
Mono:clonal antibody reactive with peripheral T cells and thymocytes - 60747D/34
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = J5 6103-116
Mono:clonal antibody reactive with monocytes and granulocytes - 60748D/34
- OXOI- 30.12.77 OXOID LTD D16 J04 = US 4289-855
Pelleted safety catalyst system held in metal foil net - 53028B/29
- PAKC- 29.02.80 PAKCRAFT LTD D13 = EP --36-227
Lollipop which can be blown like pan-pipe - 49881C/29
- *PALL/ 22.02.80 PALLUREE D12 *FR 2476-445
Brining pieces of meat etc. - 72211D/40
- PASE 17.03.80 PASSAVANTW MICHELbacher D15 = DE 3010-222
Circulating system for aeration basin - 72110D/40
- *PASE 17.03.80 PASSAVANTW MICHELbacher D15 *EP --36-182
Circulating system for aeration basin - 72110D/40
- PATE- 11.11.77 PATENT TECHN D11 = J5 4089-055
Single pack dried baking mixt. - 41693B/22
- PATE- 11.11.77 PATENT TECHNOLOGY D11 = J8 1038-166
Single pack dried baking mixt. - 41693B/22
- PENT- 08.10.79 PENTAPHARM AG B04 D21 (D22) = GB 2072-193
Freeze dried collagen prod. for medical or cosmetic use - 32557D/18
- PEPS 17.01.80 PEPSICO INC D15 J01 #J5 6105-720
Recycling backwashing effluent from filters - 38107C/21
- PERM- 29.10.79 PERMACEL A96 D22 F01 (A18 A23) = DE 3040-768
Non-disintegrable, absorbent from thermoplastic polymer - 36830D/21
- PFIZ 26.10.77 PFIZER INC B04 C03 D16 (D13) = DS 2860-790
Poly:cyclic ether antibiotic 47224 - 35178B/18
- PFIZ 15.09.78 PFIZER INC B04 D16 S03 T01 = J8 1038-197
Determin. of Minimum Inhibitory Concn. of antimicrobials - 36923C/21
- *PHAR/ 14.03.80 PHARAOH PLG D22 S02 *EP --36-307
Appts. for controlled discharge of liquid into second liq. - 72158D/40
- PHIM 05.03.80 PHILIP MORRIS INC D18 = BR 8101-234
Denitration of aq. tobacco extracts - 21215D/12
- PHIM 06.03.80 PHILIP MORRIS INC D18 F04 J01 #EP --36-025
Filamentary cigarette filters - 58516C/33
- PIND- 03.12.79 PINDSTRUP MOSEBRUG D14 = DK 7905-127
Mixed fodder mfg. appts. - 51945D/29
- *POGC 19.03.80 DAVY MCKEE MINERALS D15 J01 *EP --36-283
Mixer settler for liq.-liq. extraction - 72147D/40
- POLA 23.03.77 POLAK'S FRUTAL WORKSBV D23 E15 (D21) = IL --54-331
Tri:methyl-bicycloheptyl acrylonitrile etc. - 70764A/40
- *PRIP- 15.02.80 PRIPPS BRYGGERIER A D13 *SE 8001-244
Drink for supplying water and carbohydrate(s) during exercise - D/40
- PROC 14.07.75 PROCTER & GAMBLE CO A87 D25 E16 F06 (A25) = GB 1599-036
Liq. compsn. for softening textile materials - 18474B/10
- PROC 27.08.76 PROCTER & GAMBLE CO D25 E19 F06 = CA 1107-007
Dry stable bleaching compsn. - 15919A/09
- PROC 23.05.77 PROCTER & GAMBLE CO C03 D12 (D13) = GB 1599-195
Rapidly rehydratable simulated meat prod. - 86090A/48
- PROC 12.10.77 PROCTER & GAMBLE CO D13 = CA 1107-131
Fluid shortening useful in frying or grilling of foodstuffs - 35803B/19
- PROJ- 17.08.77 PROJ CHEM VERFA GES D17 = IL --55-363
Sugars and opt. cellulose and lignin extn. from vegetable material 14176B/08
- PRZE- 22.02.80 INST PRZEMYSLU FERM D16 (D18) #FR 2476-449
Enzymatic processing of opt. fermented tobacco - 62470D/35
- RALS 25.08.77 RALSTON PURINA CO D12 = CA 1107-719
Dispersing powdering liq., e.g. protein in brine - 78310A/43
- RALS 09.01.80 RALSTON PURINA CO D11 = J5 6102-753
Milk substitute for bakery prods. - 38186D/22
- *REGC 12.03.80 UNIV OF CALIFORNIA B04 D16 *EP --36-277
Prodn. of oxidatively activated liposome(s) - 72144D/40
- *REMM- 29.02.80 REMMERS CHEM GMBH A82 C03 D22 F09 (A23) *DE 3007-682
Fungicidal timber preservative also having insecticidal activity 71864D/40
- RENA 09.06.77 REGIE NAT USINES RE D15 = GB 1599-327
Incinerator for industrial waste water treatment sludge - 70839A/40
- RESH 10.01.73 RES INST MED CHEM INC B01 C03 D13 = IL --43-976
1-Alpha-hydroxy vitamin D derivs - 54692V/30
- RETO 20.10.76 REYNOLDS R JIND INC D16 (D17) = CA 1107-209
Glucose isomerase prepn. from Flavobacterium arborescens - 89794Y/50
- RHON 16.02.77 RHONE-POULENC INDUSTRIES D25 E34 = US 4289-643
Dust-free stabilisation of anhydrous sodium metasilicate - 60856A/34
- RHON 18.05.77 RHONE-POULENC INDUSTRIES A91 B04 C03 D13 = CA 1107-127
Pure protein(s) prodn. from milk and milk products - 84094A/47
- RICH- 28.01.77 RICH PROD CORP D13 = CA 1107-120
Food stabilised against microbial decay - 57151A/32
- *RICH- 03.11.80 RICHARDSON-VICKS IN B05 D21 E12 (E34) *US 4289-754
Mouth-wash contg. fluoride cpd., carrier - 73604D/40
- *RICH- 03.11.80 RICHARDSON-VICKS IN B05 D21 E12 (E34) *US 4289-755
Stable mouth-wash contains zinc citrate, sodium fluoride - 73605D/40
- RICT 27.04.77 RICHTER GEDEON VEGY D15 J04 = CA 1107-636
Packing elements for gas-liquid contact apparatus - 61958A/35
- RICT 27.04.77 RICHTER GEDEON VEGY D15 J04 = IL --54-346
Packing elements for gas-liquid contact apparatus - 61958A/35
- RICT 21.02.80 RICHTER GEDEON VEGY B04 D16 #FR 2476-676
Virulent Claviceps purpurea strain OKI 00163 - 48207C/28
- RICT 25.02.80 RICHTER GEDEON VEGY B04 D16 #DE 3006-989
Virulent Claviceps purpurea strain OKI 00163 - 48207C/28
- *RIKA 21.01.80 RIKAGAKU KENKYUSHO B02 D23 E13 *J5 6103-130
Cyclic ketone cpds. obtd. from lactam sulphide - 72516D/40
- ROGE/ 29.04.74 ROGERS O D21 M11 = CA 1107-542
Artificial denture structures - 76099W/46
- ROHM 06.03.72 ROHM & HAAS CO A26 D15 (A91) = J8 1038-262
Anion exchange resin prepn - 57256U/39
- *ROHM 07.03.80 ROHM & HAAS CO A96 D21 (A14) *EP --36-272
Compsns. for preparing permanent dental restorations - 72141D/40
- *ROSE/ 14.03.80 ROSENBERGER R A82 D21 G02 (A96) *DE 3009-755
Protective lacquer for plaster or plastics stump - 71924D/40
- ROUR 04.01.80 ROURE BERTRAND DUPO D23 E15 (D25) = J5 6103-125
Tri:cyclic cpds. having odour of patchouli oil - 53633D/30
- *ROUR- 25.01.80 ROUR DUPONT KASEI K A96 D21 *J5 6104-809
Hair cosmetic - 72749D/40
- *RUBE= 30.03.79 RUBEZHAN VOROSH MAC B05 D13 E14 (D23) *SU - 793-986
Para-methoxy-benzaldehyde prodn. - 73066D/40
- SAKA/ 10.08.79 SAKAIT B04 D16 = GB 2072-210
Pectin prodn. from vegetable tissue, e.g. citrus rind - 17431D/10
- *SAKA/ 16.11.79 SAKAMOTO M D15 J01 *J5 6076-203
Cooling attachment for distn. unit - 72387D/40
- SAKU/ 09.03.78 SAKURAZAWA H D11 = J5 4119-047
Porous noodle prepn. - 72971D/40
- *SAKU/ 09.03.78 SAKURAZAWA H D11 *J8 1038-101

- SALO/ 12.03.80 SALO H D13 *WP 8102-507
Coarse-ground beverage compsns. - 73699D/40
- SAMP/ 11.08.80 SAMPSON M J D15 *US 4289-619
Bar screen for waste water stream - 73542D/40
- SANE 11.08.78 SAN EI CHEM IND KK D13 = J5 5026-817
Colouring foods e.g. candy pink to reddish-violet - 72970D/40
- SANE 11.08.78 SAN EI CHEM IND KK D13 *J8 1038-087
Colouring foods e.g. candy pink to reddish-violet - 72970D/40
- SANK- 24.01.80 SANKYO YUKI KK D17 *J5 6105-748
Drying agent for fermented molasses - 72934D/40
- SANN 16.01.80 SANYO CHEM IND LTD A89 B04 D16 J04 *J5 6102-791
Enzyme-fixing tube - 72451D/40
- SANO 10.05.77 SANDOZ-ERFINDUNGEN B04 D16 = AT 8002-465
Cyclosporin D and its derivs. - 82080A/46
- SANO 10.05.77 SANDOZ-ERFINDUNGEN B04 D16 = AT 8002-466
Cyclosporin D and its derivs. - 82080A/46
- SANO 10.05.77 SANDOZ LTD B04 D16 = US 4289-851
Cyclosporin D and its derivs. - 82080A/46
- SAOC 31.03.77 SANRAKU OCEAN B02 C02 D22 (D13) = IL --54-118
De:thia-penicillin derivs. from new Streptomyces species - 72706A/41
- SAOF 18.01.80 SANKI ENGINEERING KK D15 J04 *J5 6102-933
Fluidised bed system for washing granular solid - 72489D/40
- SCHA/ 24.09.76 SCHANZER C03 D13 = CA 1107-121
Feed or feed additives for cattle from agricultural waste - 12320A/07
- SCHM/ 11.03.80 SCHMID E D22 #WP 8102-516
Skin transplant pressure pad - 70080D/39
- SCHM/ 11.03.80 SCHMID E D22 #WP 8102-517
Skin transplant pressure pad - 70081D/39
- SCHR- 24.03.80 SCHREIBER-KLARANLAG D15 X25 *GB 2072-155
Purifcn. of activated sludge waste water mixt. - 72333D/40
- SCHU/ 20.03.80 SCHUTZ H D16 *DE 3010-758
Long drink alcohol-contg. additive compsn. - 72014D/40
- SCNE- 14.06.77 SCOTTISH AND NEWCA D16 J01 *GB 1599-172
Appts. for mixing two fluent materials - 72272D/40
- SEAR 28.03.77 SEARLE G D & CO B04 C03 D16 = CA 1107-646
Antimycotic compositions - 74694A/42
- SEIW- 21.01.80 SEIWA KASEI KK A96 D21 *J5 6103-106
Hydrolysed keratin- contg. hair treatment compsn. - 72508D/40
- SELW- 00.00.79 SELWIG & LANGE GMBH D17 = DE 3009-575
Sugar beet shreds dewatering - 72062D/40
- SELW- 13.03.80 SELWIG & LANGE MASC D17 *EP --36-090
Sugar beet shreds dewatering - 72062D/40
- SERL 29.01.79 SERLACHIUS G A OY C03 D13 F09 = EP G013-723
Prepn. of non-caking lignosulphonate binder for feedstuffs - 57235C/33
- SETO- 21.01.80 SETON CO A11 C03 D13 (A97) = J5 6104-942
Pure oligopeptide(s) prepn. from collagen - 55639D/31
- SHEL 10.01.80 SHELL EXPLORER LTD D15 H01 = J5 6102-908
Topological separator - 53758D/30
- SHIF 21.01.80 SHINMEIWA IND KK D15 *J5 6102-914
Screening appts. for dirty water contg. suspended solids - 72473D/40
- SHIF 29.01.80 SHINMEIWA IND KK D22 J04 (J01) *J5 6105-745
Gas medium reacting system - 72932D/40
- SHIK- 22.01.80 SHIKAMITSU HONSHA K B05 D13 *J5 6102-774
Intestine-regulating foodstuff prodn. - 72448D/40
- SHIS 12.05.76 SHISEIDO KK A96 D21 = J8 1037-966
Gel compsn. prepn. for nail enamel use - 00905A/01
- SHIS 19.01.80 SHISEIDO KK D21 E19 *J5 6103-104
Oil-in-water type emulsion for cosmetics - 72506D/40
- SHIS 19.01.80 SHISEIDO KK A96 D21 *J5 6103-105
Yellowish red make-up cosmetic - 72507D/40
- SHIS 24.01.80 SHISEIDO KK D21 E17 *J5 6104-807
Stable cosmetic having excellent feel, colour tone etc. - 72748D/40
- SHRS 12.04.78 SHIROIMATSU SHINYAKU KK D13 E24 = CA 1107-278
High yield and purity anthocyan prodn. - 75687B/42
- SIEG/ 17.03.80 SIEGMUND G D15 *DE 3010-208
Sea water desalination - 71965D/40
- SINO- 25.05.81 SINOP AGROQUIMICA D15 *BR 8103-226
Treatment of toxic by-product from alcohol distn. - D/40
- SIOD- 20.11.78 SIO-SOC IND DELLIOSSIGEN D15 = EP G011-573
Treatment of sewage and septic sludge - 38767C/22
- SMHL 23.01.80 SIMON HARTLEY LTD D15 J01 = J5 6105-714
sludge thickening appts. - 60887D/34
- SMIT/ 19.05.76 SMITH D P D14 X27 *US 4289-792
Microwave treatment of food - 73622D/40
- SNAM 15.03.77 SNAMPROGETTI SPA B05 D16 E19 = IL --54-185
Hydrolysis of D,L-hydantoin derivs. to D-(N) carbamoyl-glycine derivs. - 67054A/38
- SNKM 17.01.80 SANKIN KOGYO KK D21 M26 *J5 6102-540
Nickel alloy for dental use - 72409D/40
- SNOW 21.04.73 SNOW BRAND MILK PRODUCTS D13 (D16) = J4 9132-260
Rapidly maturing liq. cheese mfr. - 72973D/40
- SNOW 21.04.73 SNOW BRAND MILK PRODUCTS D13 (D16) *J8 1038-169
Rapidly maturing liq. cheese mfr. - 72973D/40
- SOSH 28.12.79 SODA KORYO KK D23 E13 *J5 6103-184
Di:epoxy:lanone derivs. useful as flavourants etc. - 72541D/40
- SPAD- 20.04.77 LAB SPAD B05 D21 E14 = CA 1107-650
Endodontic treatment paste used esp. for filling infected teeth - 76290A/43
- SPON 23.04.76 SPONCEL LTD A91 D13 L02 = CA 1107-119
Treating protein by absorption on ion-exchange material - 75907Y/43
- SQUI 08.06.77 SQUIBB E R & SONS INC A81 D22 G03 (A18 A96) = GB 1598-966
Adhesive used partic. for abdominal stoma - 89643A/50
- SQUI 08.06.77 SQUIBB E R & SONS INC A96 D22 G04 (A18) = GB 1598-968
Formable compsn. used as protective layer for stoma in surgery - 89644A/50
- *STAA- 20.05.81 STAAR SA D13 *BE-888-877
Volumetric dispenser to deliver successive doses of coffee powder - 71792D/40
- STAG/ 00.00.73 STAGE H D23 = DS 2759-846
Tall oil distn. with prod. temp. control - 14400B/08
- STAG/ 12.08.77 STAGE H D23 = DS 2736-357
Tall oil distn. with prod. temp. control - 14400B/08
- STAK- 24.01.77 STAKE TECHN LTD C03 D13 F09 = GB 1599-092
Feeding natural cellulose fibre into steam pressure vessel - 38581A/22
- STAM 18.10.77 STAMICARBON BV D13 E14 (D23) = CA 1107-299
Pure benzaldehyde prodn. - 34621B/18
- STAM 22.03.78 STAMICARBON BV A41 D15 E13 = EP G004-397
Melamine removal from waste water - 72146B/40
- STAU 23.09.76 STAUFFER CHEMICAL CO A97 D13 = CA 1107-126
Modified whey protein prod. with good whipping properties - 23340A/13
- STAU 31.12.79 STAUFFER CHEMICAL CO D12 = J5 6102-768
Protein-fortified cured meat - 51939D/29
- *STAU 31.12.79 STAUFFER CHEMICAL CO D12 *J5 6102-770
Protein enriched fish meat - D/40
- *STER 19.09.77 STERLING DRUG INC D15 *US 4289-626
Removal of organic constituents from waste water - 73546D/40
- *STRK 17.03.80 STORK FRIESLAND BV D13 *EP --36-235
Multistage evaporation of liquid esp. milk - 72128D/40
- *STRK 19.03.80 STORK BEPAK BV D17 *EP --36-241
Moulding sugar cubes and depositing on tray - 72129D/40
- *SUES/ 19.03.80 SUESS H R D21 *DE 3010-572
Skin-care and -protective compsns. e.g. ointments - 72000D/40
- SUGI/ 24.02.79 SUGIURA E D15 = DD -149-314
Aeration system for effluent treatment plants - 64456C/37
- *SUGI/ 18.01.80 SUGIURA M B04 D16 *J5 6102-787
Human placenta superoxidedismutase prodn. - 72449D/40
- SUMO 05.11.77 SUMITOMO CHEMICAL KK A97 B04 D16 = CA 1107-669
Immobilised enzyme carrier of macroporous anion exchange resin - 37364B/20
- SUMO 10.05.78 SUMITOMO CHEMICAL KK B04 D16 = J8 1038-113
Extraction of urokinase from human urine - 00775C/01
- SUMO 25.01.80 SUMITOMO CHEMICAL KK A88 D15 J01 = J5 6105-702
Tubular semipermeable membrane element - 58993D/33
- SUMO 25.01.80 SUMITOMO CHEMICAL KK A88 D15 J01 = J5 6105-703
Tubular semipermeable membrane element - 58993D/33
- SUNC- 30.01.78 SUNCOR INC A97 D15 H01 J01 = US 4289-540
Flocculation of colloidal sludge suspensions from tar sands - 15922C/09
- SUNP- 27.02.78 SUNPOLE KK D25 E34 (E36) = J8 1038-640
Acidic powder cleaner for applying to inside of pipes etc. - 75924B/42
- *SUOS- 12.03.80 SUOMEN OSUUSKAUPOJ D13 *WP 8102-507
Coarse-ground beverage compsns. - 73699D/40
- *SUZU/ 00.00.79 SUZUKI M D15 *J5 6105-708
Water or aq. soln. deaeration device - 72905D/40
- SVME- 10.05.77 SVENSK MEJER RIKSFO D13 = J8 1038-086
Desalting whey using anionic and cationic exchangers - 65363A/37
- *TABA/ 22.01.80 TABATA T D22 J01 *J5 6102-922
Air purifying system which uses cleaning liq. - 72480D/40
- TAIC 04.10.74 TAIYO KAGAKU KOGYO D13 = J8 1038-184
Acidic foamed instant milk dessert - 38940X/21
- *TAKA- 04.03.80 TAKARA SHUZO KK D16 *BR 8101-155
Continuous fermenter and reactor - D/40
- TAKE 26.01.73 TAKEDA CHEMICAL IND KK D16 = J8 1038-192
L-Asparaginase prodn. - 13402W/08
- TAKE 31.03.77 TAKEDA CHEMICAL IND KK B02 C02 D16 = CA 1107-212
Antibiotic complex C-15003 prepd. from Nocardia species - 72710A/41
- TAKE 28.12.79 TAKEDA CHEMICAL IND KK B02 C02 D16 = J5 6102-793
Improved prodn. of antibiotic C-15003 P-3 - 51885D/29
- TAKE/ 22.03.73 TAKEUCHI M A96 D21 (A14) = J8 1038-566
Anticorrosive filler compsn. for fine crevices - 68636C/39
- *TANA 21.03.80 TANABE SEIYAKU CO L B05 D16 E16 *GB 2072-185
Fermentative prodn. of L-threonine - 72344D/40
- TECH- 05.12.79 INST TECHN SUBFACES ACTI B04 D16 = DK 8005-186
Microparticles having a surface formed of crosslinked protein - 48129D/27
- *TEIJ 30.01.80 TEIJIN KK A88 D15 J01 *J5 6105-705
Selectively permeable membrane - 72903D/40
- TENT/ 22.02.80 TENTA LT B06 D21 E34 (E33) = FR 2476-487
Chewing gum compsn. - 38049D/21

THET-

- THET- 11.11.77 THETFORD CORP D15 = DS 2860-792
Bacteriological closed loop toilet waste system - 409798/22
- THOM 15.03.79 THOMAE K GMBH B02 C02 D13 = US 4289-775
Pyrimidyl-ureido-acetamido penicillin derivs. - 71934C/41
- TOAG 19.03.75 TOA GOSSEI CHEM IND LTD A96 D21 = J8 1037-963
Water soluble dental cement compsn. - 84182X/45
- *TOCO- 23.02.80 TOYO CONTACT LENS D22 E36 *GB 2072-371
Removing adherent contamination from contact lenses - 72382D/40
- *TOKU 28.01.80 TOKUYAMA SODA KK A12 D21 (A96) *J5 6104-914
Di:carboxylic acid ester polymer prepn. used as filler - 72796D/40
- *TORA 28.12.79 TORAY INDS INC D23 E13 *J5 6103-184
Di:epoxy:ionone derivs. useful as flavourants etc. - 72541D/40
- *TORA 18.01.80 TORAY IND INC A88 D15 J01 *J5 6102-907
Feeding raw liq. for reverse osmosis liq. sepn. process - 72469D/40
- *TOSI 25.01.80 TOSHIBA MACH KK D15 J01 *J5 6105-738
Slurry dewatering extruder - 72925D/40
- TOXN 14.09.78 TOYO JOZO KK B03 C02 D13 = AT 7906-074
3", 4"-Di:acyl-tylosin derivs. - 24011C/14
- TOXN 18.01.80 TOYO JOZO KK B04 D21 (D16) = J5 6103-193
Acidic protein obid. from Arthriniium sp. M5071 etc. - 62875D/35
- *TOXN 22.01.80 TOYO JOZO KK B04 D16 *J5 6103-195
Antibiotic A-12918 - 72544D/40
- *TOYJ 21.01.80 TOYO SODA MFG KK D15 E14 *J5 6102-986
Clearing turbidity of aq. soln. of ammonium styrene sulphonate - 72500D/40
- TOYM 10.01.78 TOYOBOKK D15 J01 = CA 1107-657
Semipermeable membrane fluid separator of hollow fibres - 35300B/19
- *TUCH/ 17.03.80 TUCHER W C03 D13 *DE 3010-250
Animal e.g. pig feed pre:concentrate - 71971D/40
- UHDE 13.03.80 UHDE F GMBH C03 D13 E36 (C04) = DE 3009-622
De-fluoridation of phosphoric acid - 40229D/23
- *UNIC 13.03.80 UNION CARBIDE CORP D12 *BE -887-928
Large dia. tubular cellulosic food casing - 71769D/40
- UNIC 13.03.80 UNION CARBIDE CORP D12 = BR 8101-410
Large dia. tubular cellulosic food casing - 71769D/40
- UNIC 13.03.80 UNION CARBIDE CORP D12 = GB 2071-988
Large dia. tubular cellulosic food casing - 71769D/40
- *UNIL 06.10.76 UNILEVER NV D13 *GB 1599-272
Stable hardened ice cream - 72275D/40
- UNIL 18.04.77 UNILEVER NV D21 E19 = GB 1599-414
Aq. hair shampoo inhibiting fat distribution - 76863A/43
- UNIL 12.01.78 LEVER BROTHERS CO D24 = US 4289-641
Deodorising textile washing compsn. - 54834B/30
- *UNIL 11.03.80 UNILEVER NV D23 *BR 8101-355
Material and process for depositing perfume on surface - D/40
- *UNIX 05.03.80 UNISEARCH LTD D16 *BR 8101-334
Continuous process for ethnoal prodn. with cell recycling - D/40
- UNIX 05.03.80 UNISEARCH LTD D16 = BR 8101-335
Continuous process for ethnoal prodn. with cell recycling - D/40
- *UNTC 26.01.78 ECODYNE CORP D15 *CA 1107-413
Hard water treatment providing soft and potable water - 71812D/40
- *URAL= 25.05.78 URAL FOREST TECH IN A97 D15 E11 (A11) *SU -794-057
Compsn. for preventing deposition of mineral salts from aq. solns. - 73125D/40
- *URAY- 29.01.80 URAYAMA SEISAKUSHO KK D22 J04 (J01) *J5 6105-745
Gas medium reacting system - 72932D/40
- USGO 31.05.79 US GOVERNMENT B04 D16 K08 S03 (S05) = US 4289-748
Ultra-sensitive enzymatic radioimmunoassay method - 01983D/02
- UYSH 18.10.78 UNIV OF SHERBROOKE D15 E33 = US 4289-736
Water soluble magnesium salts mfr. - 33990C/19
- VDYK- 13.04.76 VAN DYK & CO INC D21 E16 = CA 1107-294
Quat. dialkylamino-alkanoic acid amides - 55711Y/31
- *VELT/ 14.03.80 VELTMAN PL D17 *EP --36-309
Prepn. of particulate carbohydrate(s) from soln. - 72159D/40
- VENT- 13.12.79 VENTURATOR LTD D15 = DK 8000-119
Freely suspended submersible aerator for diffusing gas into liq. - 64207C/37
- VERB/ 13.03.80 VERBANDT A D15 = EP --36-228
Grid and rake assembly for clarifying fluids - 53362C/31
- *VETE= 10.07.79 VETERINARY EXPTL IN C03 D16 (D13) *SU -794-072
Treatment of bacterial biomass for fodder mfr. - 73136D/40
- *VOIS/ 22.05.80 VOISIN M D23 E19 (D13) *BE -888-911
Lowering the freezing point of essence of anise and anethole - 71800D/40
- *VOIS/ 30.05.80 VOISIN M D23 (D13) *BE -888-912
Stable aq. emulsions of essential oils for cosmetics and food - 71801D/40
- *VOLG= 05.10.78 VOLGODON SURFACTANT D25 E19 *SU -794-001
Prodn. of alkyl sulphate or sulphonate for detergent mfr. prepn. - 73079D/40
- *VOTE= 20.02.79 VORON TECH INST D15 E14 J04 S03 *SU -794-444
Photometric determ. of nitro-phenol isomers in water - 73196D/40
- WACK 10.01.80 WACKER CHEMIE GMBH A26 D21 E11 G02 (A82 A96)
= J5 6103-187
Silicon cpd. addn. to unsatd. aliphatic cpd. - 53546D/30
- *WATE- 30.01.80 WATER RES CENTRE D15 *GB 2072-027
Aeration of waste water pumped downwards - 72307D/40
- *WATE- 05.05.80 WATER REFINING CO D15 *US 4289-617
Water softening and reverse osmosis system - 73541D/40
- *WELA 14.03.80 WELLA AG D21 E19 *DE 3009-763
Three-phase cosmetic liq. compsn. - 71925D/40
- *WHIT- 12.03.80 WHITE LIGHT IND INC D15 X25 *WP 8102-529
Magnetic water treatment appts. with cylindrical magnet - 73702D/40
- WIDM- 27.02.80 WIDMER & ERNST AG D13 = BR 8006-912
Shelling nuts esp. cashew nuts by cutting longitudinal grooves - 66501D/37
- *WILL/ 17.03.80 WILLARD M J D13 *EP --36-179
Formed potato prod. prepn. - 72109D/40
- *WIND/ 22.03.80 WINDLE A B D13 *GB 2071-999
Stripping Brussels sprouts from stacks - 72299D/40
- WOBI 20.01.76 WORTHINGTON BIOCHEM CORP B04 D16 S03 S05 = J8 1038-909
Turbidity test for endotoxins - 55574Y/31
- WORL- 19.05.81 WORLD RESOURCES CO D15 M25 #BE -888-872
Recovery of precious metal values from waste water - 50149Y/28
- *WYSS 20.05.80 ESCHER WYSS GMBH D17 E33 L02 *BE -888-860
Roasting calcium carbonate contg. sludge in granulate form - 71789D/40
- YAKU= 05.06.79 YAKUT LEATHER-SHOE D18 #CA 1107-088
Leather prodn. with hair left on - 30508D/17
- YAMA/ 27.05.77 YAMAGA R D21 E33 (E32) = CA 1107-200
Dental sealing composition - 88144A/49
- *YAMA/ 22.01.80 YAMAZAKI K D15 *J5 6102-915
Filter for dirty water comprises cylindrical filter - 72474D/40
- *YAMA/ 22.01.80 YAMAZAKI K D15 *J5 6102-916
Dirty water filter - 72475D/40
- *YAMA/ 22.01.80 YAMAZAKI K D15 *J5 6102-917
Filter for aq. effluent contg. suspended solids - 72476D/40
- *YAMA/ 24.01.80 YAMAZAKI K D15 *J5 6105-715
Filter for dirty water - 72907D/40
- *YAMA/ 24.01.80 YAMAZAKI K D15 *J5 6105-716
Filtering water contg. scum etc. - 72908D/40
- YAWA 18.10.71 NIPPON STEEL CORP D15 H09 = J8 1038-638
Purification of hcn-contg gas - 26218U/19
- *YAWA 28.01.80 NIPPON STEEL CORP D15 M24 *J5 6105-793
Processing cooling water effluent from damped down blast furnace - 72945D/40
- YOUN/ 27.10.77 YOUNDELIS W V D23 M13 = CA 1107-584
Coating low-melting gold alloy onto metallic substrate - 05148C/03
- *ZEIS/ 00.00.79 ZEISER M D21 *DE 3010-184
Jaw model for replacement part production - 71962D/40
- ZIEH/ 29.01.79 ZIEHN K D D18 = US 4289-148
Improving the packing capacity of tobacco - 43298C/25
- ZIKO- 09.11.79 ZIKONIX CORP D13 S03 X25 = SE 8104-261
Continuously determining water and fat concentration of butter - 39875D/22

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02884-U BD	25323-V ADJ	US 4264-467 D20	GB 1568-998 C28+	CH -622-272 D16+	BE -857-664 A07		BE -864-742 A29
DE 2227-739 U03	DE 2346-659 V14	NL -167-147 D28	J5 6008-339 D12+	AT 7702-359 D19+	DE 2736-266 A08	30266-A ABDE	NL 7802-174 A39
GB 1395-907 W22	FR 2200-030 V25	US 4289-659 D40	SU -731-882 D16+	US 4289-752 D40+	NL 7708-936 A09	BE -861-945 A17	DE 2710-929 A39
US 3977-943 X37	J4 9133-282 W08	57118-W D	DS 2643-062 D40+	75907-Y ADL	SE 7709-083 A12	NL 7713-954 A27	DK 7801-035 A43
CH -584-755 Y16	GB 1441-014 X27	US 3899-593 W34+		BE -853-858 Y43	DK 7703-572 A16	DE 2756-003 A27	FR 2382-898 A50
US 4071-536 A07	IL -43-201 X51	CA 1107-124 D40+	37390-Y D	NL 7704-329 Y45	FR 2361-447 A19	J5 3084-031 A35	AT 7801-663 B40
4 8008-992 B19	CA 1030-711 A21	76099-W DM	J5 2048-259 Y21	DE 2718-046 Y47	BR 7705-325 A24	ZA 7707-309 A46	GB 1584-845 D08
7 9008-753 B19	DS 2346-659 D40	DE 2518-355 W46+	J8 1038-273 D40	SE 7704-673 Y49	DK 8000-494 C35	FR 2382-481 A49	CA 1107-643 D40
5 4095-796 B36		FR 2279-372 X20+	46972-Y ABD	NO 7701-391 Y50	US 4228-259 C44	FR 2382-482 A49	53463-A BD
8 1038-119 D40	42272-V D	ZA 7502-630 X21	BE -850-018 Y27	J5 2151-200 A05	GB 1589-589 D20	US 4182-885 C03	BE -863-089 A30
US 4289-703 D40	J4 8077-038 V23	US 3997-637 X52+	DE 2659-808 Y29	FR 2348-737 A06	GB 1589-590 D20	IL -53-590 D02	NL 7800-630 A31
	J8 1038-597 D40	GB 1502-813 A09+	SE 7614-725 Y32	DK 7701-771 A06	CA 1107-724 D40	GB 1589-672 D21	DE 2701-890 A31
1126-U DEH		IT 1032-781 B40+	J5 2083-996 Y35	ZA 7702-444 A16		GB 1589-673 D21	J5 3090-201 A31
IL 7208-905 U03	54692-V BCD	CA 1107-542 D40+	FR 2337-144 Y41	IL -51-922 C31	12320-A CD	CA 1107-728 D40	FR 2378-041 A43
DE 2232-323 U04	NL 7400-282 V30+		DD -129-794 A18	US 4218-490 C36	BE -859-010 A07+		ZA 7802-064 B18
E -785-416 U05	DE 2400-931 V31+	76372-W D	DS 2659-808 B32	GB 1585-111 D09	DE 2643-093 A14	32460-A ADJ	DK 7801-596 B48
R 2144-334 U16	BE -809-578 V32+	US 3916-776 W47+	GB 1565-090 C16	CA 1107-119 D40	NL 7710-095 A15+	DE 2747-408 A18	NO 7801-267 B48
US 3740-333 U30	FR 2213-053 V44+	CA -984-267 X11+	J8 0023-271 C29		SE 7710-562 A18+	NL 7711-594 A19	SE 7804-095 B48
4 8056-706 U42	J4 9095-956 V46+	GB 1435-224 X20+	CA 1084-488 C39	81194-Y BDJ	DK 7704-203 A22+	J5 3051-184 A25	FI 7801-104 B51
GB 1379-105 W01	NO 7404-259 W04+	DS 2338-504 D40+	US 4271-151 D25	BE -854-407 Y46	FR 2365-299 A25+	FR 2368-289 A29	US 4226-764 C43
GB 1038-618 D40	ZA 7400-158 W18		US 4289-688 D40	DE 2625-834 Y51	ZA 7705-543 A38	GB 1561-200 C07	AT 7800-355 D11
	US 3901-928 W36+			NL 7704-591 A01	DD -131-898 A43+	CA 1107-424 D40	US 4282-318 D34
218-U DH	J5 0100-045 W40+		48861-Y AD	NO 7701-599 A04	DE 2737-295 B10+		CA 1105-404 D38
IL 7214-102 U19	J5 0100-216 W40+	X	BE -852-458 Y28	SE 7705-303 A04	DS 2643-093 B19	36438-A CD	GB 1599-372 D40
E 2250-934 U20	J5 1110-554 X46+	18856-X ADF	NL 7702-774 Y40	J5 2150-692 A05	AT 7706-666 B22	US 4081-367 A20	56880-A D
R 2156-769 U33	GB 1463-985 Y06+	BE -834-927 X11	DE 2711-014 Y40	FI 7701-356 A08	GB 1581-281 C50+	DE 2758-870 A31	DD -131-339 A32
4 8046-568 U45	CH -603-571 A37+	DE 2548-200 X21	SE 7603-313 Y43	DK 7702-026 A10	CA 1107-121 D40+	NL 7800-766 A32	BE -867-855 A45
S 3855-390 W01	CA 1055-011 B23+	J5 1072-621 X32	FR 2344-280 A02	FR 2354-561 A12		SE 7800-808 A36	NL 7806-165 B01
A -974-033 W39	IL -43-976 D40+	FR 2289-611 X36	GB 1581-067 C50	BR 7703-008 A18	15919-A DEF	FR 2377-976 A43	DE 2823-278 B01
GB 1413-521 W46		GB 1474-780 Y21	CA 1107-879 D40	ZA 7702-716 A25	BE -858-144 A09	J5 3112-179 A45	SE 7806-624 B04
GB 1038-638 D40		DS 2548-200 B13		DD -130-178 A30	DE 2737-865 A10	CA 1107-561 D40	NO 7801-979 B05
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7833-U D	03818-W BCD	J8 1038-691 D40	US 4033-763 Y28+	HU T015-210 A32	J5 3029-288 A17	38324-A ADEJ	HU T020-082 D29+
IL 7211-653 U34	BE -817-119 W03		DE 2722-561 A22	DS 2625-834 A42	FR 2362-923 A21	US 4082-658 A21	AT 7804-114 D40
4 8087-063 V04	NL 7408-821 W04	38940-X D	NL 7703-772 A23	AT 7702-340 B26	US 4100-095 A37	DE 2805-189 A33	
US 3809-062 V20	DE 2431-450 W05	J5 1041-474 X21	J5 3064-601 A29	US 4168-205 B39	GB 1582-039 D01	BE -863-764 A34	57151-A D
GB 1401-216 W30	FR 2236-004 W16	J8 1038-184 D40	CH -601-465 A33	CA 1084-393 C39	CA 1107-007 D40	NL 7801-433 A34	DE 2803-634 A32
GB 1401-218 W30	J5 0036-684 W22		FR 2371-387 A34	CS 7703-018 D01		J5 3098-421 A40	BE -863-403 A32
GB 1401-219 W30	ZA 7404-208 W31	41197-X DJ	GB 1553-058 B38	IL -52-047 D40	20230-A ADE	FR 2380-053 A46	NL 7801-039 A33
GB 1401-217 W30	GB 1448-176 X36	J5 1045-455 X22	GB 1553-057 B38+		J5 3010-590 A11	GB 1558-745 C02	SE 7800-962 A36
US 3938-948 X09	IL -45-168 X49	J8 1038-271 D40	CA 1092-360 D06	82995-Y BCDE	J8 1037-964 D40	CA 1103-866 D37	DK 7800-400 A38
US 3948-593 X16	US 3997-396 X52		CA 1093-827 D09	BE -854-843 Y47		IL -53-993 D40	J5 3104-767 A42
E 2265-218 Y07	CH -593-339 A01	42812-X DJ	BE -888-872 D40+	NL 7705-602 Y49	23340-A AD		FI 7800-232 A43
A 1009-138 Y19	J8 0004-395 C08	J5 1046-751 X23		DE 2722-162 Y49	BE -858-970 A13	38502-A AD	FR 2378-456 A44
A 1022-054 Y51	CA 1107-211 D40	J8 1038-272 D40	55574-Y BD	SE 7705-886 A02	DE 2741-670 A14	BE -861-280 A22	US 4146-652 B15
A 1035-690 A33			US 4038-029 Y31	NO 7701-770 A03	NL 7709-332 A15	DE 2654-417 A24	GB 1548-358 B28
S 2262-665 C39		59749-X D	J5 2090-990 Y36	J5 2151-128 A05	SE 7710-633 A18	BR 7707-982 A34	US 4234-611 C49+
S 4289-477 D40+	13402-W D	DD -120-119 X32	GB 1530-748 A44+	DK 7702-214 A07	NO 7703-244 A20	FR 2372-861 A36	IL -53-713 D35
	J4 9094-889 W08	BE -843-665 X47	DE 2722-077 A48+	FI 7701-602 A08	J5 3041-457 A21	US 4198-325 C17	CA 1107-120 D40
151-U BD	J8 1038-192 D40	NL 7607-271 Y04	SE 7705-186 A50+	FR 2360-601 A18	FR 2365-297 A25	CA 1102-044 D25	
E -797-458 U37+		DE 2623-609 Y05	FR 2396-298 B14+	ZA 7703-017 A20	US 4089-987 A27	GB 1599-060 D40	58758-A DE
IL 7305-163 U44	39265-W DE	SE 7607-459 Y07	CA 1060-323 B35+	PT -66-581 A23	GB 1589-742 D21		BE -863-636 A33
E 2217-628 U45	BE -824-591 W24	NO 7602-240 Y08	DS 2722-077 D26+	DD -131-751 A36	CA 1107-126 D40	38581-A CDF	DE 2704-905 A33
E 2264-394 U45	DE 2501-696 W31	DK 7602-593 Y12	J8 1038-909 D40	AT 7709-431 A48		BE -863-159 A22	NL 7800-445 A34
E 2307-299 V35	NL 7500-667 W32	FR 2315-856 Y15		AT 7703-617 A48	25194-A CD	DE 2714-993 A31	FR 2379-281 A45
D -108-323 V48+	SE 7500-348 W37	CS 7604-095 B06	55711-Y DE	GB 1542-938 B13	BE -859-138 A14	SE 7800-730 A36	AT 7800-746 B44
R 2179-966 V03	NO 7500-155 W38	GB 1550-138 B32	US 4038-294 Y31	US 4147-780 B15	DE 2644-351 A15	DK 7800-330 A38	US 4186-186 C06
E 2307-251 V35	DK 7500-162 W42	HU T017-840 C16	DE 2708-823 Y45	CS 7703-353 C28	NL 7710-608 A16	FR 2378-125 A43	US 4226-852 C43
S 3865-957 W08	FR 2258-445 W45	AT 7604-327 D40	J5 2125-123 Y48	CS 7801-917 C28	SE 7710-978 A19	DS 2714-993 B01	GB 1599-324 D40
D -111-803 W23	PT -63-249 X19		FR 2348-190 A06	CA 1081-241 C30	J5 3044-374 A22	BR 7800-392 B37+	
4 9007-492 V13+	ZA 7500-262 X37	84182-X AD	GB 1516-496 A27	RO -73-647 D06	DK 7704-337 A23	CA 1070-537 C08	60856-A DE
T 7302-748 W41	GB 1493-012 Y47	J5 1107-695 X45	CA 1107-294 D40	SU -795-484 D40	FR 2365-965 A26	GB 1599-092 D40	DE 2806-161 A34
S 2264-394 W41	CA 1041-397 A46	J8 1037-963 D40			DS 2644-351 A38		BE -863-997 A35
S 3912-804 W43	GB 1493-012 A47		55841-Y D	89794-Y D	ZA 7705-842 A42	42401-A ADFJ	NL 7801-714 A35
T 7302-748 W41	IT 1026-391 A49		BE -853-318 Y32	US 4061-539 Y50	DD -132-168 A46	DE 2655-014 A24	SE 7801-701 A39
S 2264-394 W41	CH -614-232 B50	Y	NL 7703-788 Y43	BE -859-830 A17	AT 7706-990 B13	ZA 7706-021 A25	DK 7800-673 A40
R 2179-966 V03	AT 7500-413 C36	05993-Y D	DE 2715-256 Y44	DE 2746-939 A18	HU T017-282 B50	NL 7712-123 A25	FR 2380-986 A47
E 2307-251 V35	US 4289-640 D40	DE 2532-393 Y04	US 4056-465 Y45	NL 7711-563 A19	US 4223-045 C40	SE 7713-646 A28	PT -67-657 B11
S 3865-957 W08		DS 2532-393 Y33	SE 7704-090 Y47	SE 7711-054 A22	IL -52-940 D02	J5 3070-986 A30	DS 2806-161 B15
D -111-803 W23	49354-W BDE	AT 7800-510 B22	J5 2124-768 Y48	NO 7703-591 A23	GB 1584-857 D08	DK 7705-398 A32	GB 1562-478 C11
S 3940-481 X10	BE -824-243 W30	SU -795-502 D40+	FI 7701-111 Y51	ZA 7705-921 A25	SU -772-463 D27	FR 2372-922 A36	US 4289-643 D40
B 1429-334 X13	DE 2417-375 W31		DK 7701-418 A02	J5 3052-684 A25	CA 1107-122 D40	DS 2655-014 B02	
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K 7600-467 X33	FR 2258-371 W45	BE -846-258 Y12	ZA 7701-732 A16	FR 2368-538 A29	25695-A ADE	GB 1595-299 D33	DE -866-336 A35
K 7600-468 X33	J5 0123-622 W48	NL 7610-211 Y14	AT 7702-487 B13	BR 7706-944 A29	DE 2743-451 A14	CA 1107-580 D40	DE 2818-557 A45
7601-388 X39	US 3960-942 X24	DE 2641-218 Y14	GB 1543-528 B14	FI 7703-006 A30	BE -859-079 A14		NL 7804-070 A46
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E 2259-956 U41	J5 0105-841 W42	NL 7609-668 Y17+		J8 1037-966 D40	GB 1545-404 B19+	J5 3075-385 A32	CA 1107-636 D40
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S 3784-489 V03	GB 1435-887 X21	US 4031-161 Y26	BE -853-252 Y41+		NL 7713-838 B27+	FR 2374-045 A38	
9011-789 V14	CH -586-551 Y22	FR 2357-513 A15+	NL 7703-734 Y43+		BR 7708-265 B29+	GB 1557-649 B50	
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CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

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25 NOVEMBER 81
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ABSTRACTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	21 SEP - 27 SEP 81	888,011 - 888,109
-Non Delayed	16 SEP 81	888,928 - 889,020
BRAZIL	22 SEP 81	7,909,037 - 8,104,419
CANADA	1 SEP 81 + 8 SEP 81	1,107,901 - 1,108,350 1,108,351 - 1,108,800
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E. GERMANY	15 JUL 81	149,449 - 149,598
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-PS	1 OCT 81	1,798,090 - 3,042,816
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PCT	1 OCT 81	8,102,659 - 8,102,824

*Includes numbered Basics from Week D32 (CPI)

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating,
A+	Polymer Applns.		Photographic Chemistry
B	Pharmaceuticals	H	Petroleum
C	Agricultural Chemistry	J	Chemical Engineering
D	Food, Disinfectants, Detergents	K	Nucleonics, Explosives, Protection
E	General Chemistry	L	Refractories, Ceramics
E+	General Chemistry Applns.	M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	IPC	Patent No
MEDA-	Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids			A89		(SE28.7.75)	69369W/42			=US 3964-992
	MEDAC GES KLINISCHE		11.10.74		DE 448552	(31.12.73)	DE-365284			
	804 J03 R16		(22.06.76)		*FR2256-410	G01n-27/26				

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

OTTO- ★ D11 73745 D/41 ★ BE -888-939
Machine for mixing and extruding edible paste for bakery etc. - has volumetric rotor to control flow of mixt. to extrusion screw
OTTOPRAN SRL 22.12.80-IT-005253 (23.05.80-IT-005160)
(16.09.81) A21c

22.05.81 as 888939 (448HM)
Machine for the prepn. of edible pastes etc. The machine is of the type in which the ingredients are premixed in a bowl and then transferred to an extrusion chamber for final kneading and discharge.

The premixed ingredients are now transferred from the bowl to the chamber via a volumetric rotor. The rotor comprises a hub fixed on the inlet end of the extrusion screw shaft and a radial arm with volumetric pumping paddle.

Pref. the mixing bowl agitator shaft, the extrusion screw shaft and the volumetric rotor are coaxially aligned and coupled together. The bowl is pref. equipped with a vertical agitator shaft which extends upwards to be detachably coupled to the screw shaft of an extrusion chamber which can be raised clear of the bowl top with a removable bowl cover.

The machine can pref. be tilted so that the axis of the bowl agitator shaft is inclined to the vertical and premixed ingredients tend to flow by gravity towards the extrusion chamber.

Used for mixing, kneading and extruding edible pastes partic. for bakeries patisseries. The rotor exercised volumetric control over the rate of transfer of premixed ingredients into the extrusion chamber. This prevents overfeeding and blockage of the extrusion screw. No axial back thrust from screw to drive motor. The machine is easy to dismantle and reassemble for frequent cleaning and simple servicing. (15pp)

GENO ★ D11 73766 D/41 ★ CA 1108-006
Flour compsn. is a mixt. of starch diluent - and pptd. protein micellar mass, used as substitute for wheat flour
GENERAL FOODS CORP 21.07.78-CA-307867
(01.09.81) A21d-02/36

21.07.78 as 307867 (955NS)
Compsn. is a mixt. of at least one dry particulate protein micellar mass with a particulate food grade starch material, and contains 5-95 wt.% protein. The protein micellar mass is pref. prepd. as described in CA Pat. 1,028,552. A protein source is treated with a food grade salt soln. of ionic strength at least 0.2, pref. 0.2-0.8, and pH 5.5-6.5, at 15-35 deg.C to cause solubilisation of protein. The soln. is then pref. diluted to an ionic strength below 0.1 to cause pptn. of a sticky viscous mass of micellar protein which may then be dried and powdered. The proteinaceous starting material is pref. a cereal, legume, oil seed, animal protein or microbial protein.

The compsn. is useful as a fully functional extender or replacement for wheat flour in baked goods. (14pp)

BABW ★ D11 73942 D/41 ★ DE 3011-377
Wheat gluten thermal treatment - in cylinders with high-speed horizontal cutter shafts before ascension tube drying
BABCOCK-BSH AG 25.03.80-DE-011377 (00.00.78-DE-812122)
Q76 (01.10.81) A21d-02/38 F26b-03/12

25.03.80 as 011377 Add to 2812122 (39HM)
The thermal treatment of gum-like viscous material such as wheat gluten, produced in the manufacture of wheat starch, was described in the Parent Patent No. 2812122. The pretreatment chamber with the high-speed shaft carrying radial cutter blades is now arranged horizontally. The ascension tube dryer receives the charge from this chamber at its bottom elbow. The chamber is preferably subdivided into two chambers with independently driven cutter shafts.

These changes are better able to ensure a troublefree operation when the properties of the gluten are most awkward and fluctuating. (10pp)

STEP- D11 27621 C/16 = EP G009-666
Dough mixing and kneading tool - made of bar stock with sine curve outline in side elevation

STEPHAN A & SOHNE 05.10.78-DE-843369
+ Q62 (30.09.81) *EP---9-666 A21c-01/06 + B01f-07/06
10.09.79 as 103365 (39JB) (G) DE-172211 FR1169993 GB-302556 E(CH FR GB IT NLSE)

A mixing and kneading tool for highspeed dough processing machines consists of a hollow shaft to which a round bar, bent to a

sine curve with flattened apices, is welded. The bar is welded to the shaft at one end on the side, straddles the shaft and is welded on the other side halfway along the shaft length, and straddles the shaft at the underside to be welded on the same side as the start but at the end of the shaft.

This tool combines a good mixing effect with a min. temp. rise of the dough due to friction at high speeds. (4pp)

DICK- D11 12039 D/08 = EP --36-593
Coated porous sugar article prodn. - on biscuit base provided with central perforations(s)

DICKMANN & CO GMBH 21.03.80-DE-010898
(30.09.81) *DS3010-898 + A21d-13/08
14.03.81 as 101909 (200DH) (G) No-Citns. E(AT BE CH FR GB IT LI LU NL SE)

Lamellar pastry bases provided with one or more central perforations having dia. 2-5 mm are used in the prepn. of porous sugar prods. by forming a porous sugar compsn. on a pastry base and coating with chocolate, fondant or fat glaze.

The perforations promote air-exchange after coating. Sudden pressure changes, e.g. on transport over mountains roads or by aeroplane, do not cause sudden pressure changes within porous sugar article, leading to air-expansion and damage to coating. (6pp)

WELR ★ D11 74295 D/41 ★ GB 2072-479
Automatic final baking oven with pivoting gondola(s) - each accepting single product and tilted to remove cooked product
WELKER P AG 28.03.80-DE-012043
(07.10.81) A21b-01/42

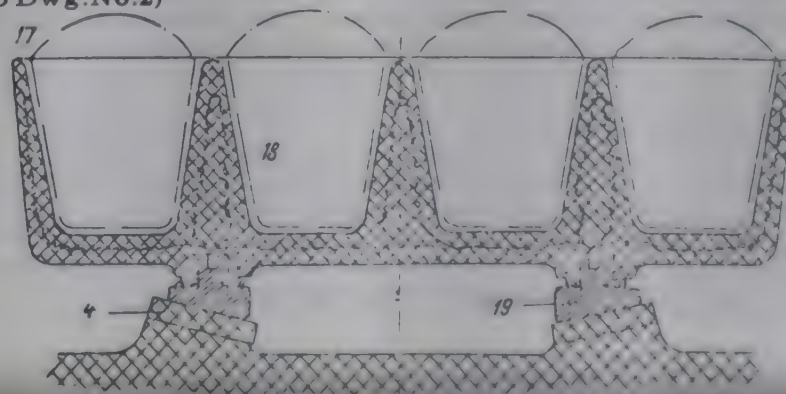
26.02.81 as 006028 (295NS)
An automatic oven for final baking of pre-baked dough prods. includes a gondola conveyor arranged in the baking area. The conveyor has axially parallel gondolas which are open at the top for receiving the prods. The gondolas are suspended at spaced intervals on a circulating endless conveyor and pivot about a horizontal axis transverse to the direction of movement. The oven also includes a gravity supply chute with a release member allowing individual prods. to pass into successive empty gondolas. An injector is spaced along the conveyor path and engages the passing gondolas to pivot them to release the baked prods. which fall onto a trap door openable by the wt. of the prods. to pass them to a collecting chute. A hot air blower has its suction and delivery sides connected to the baking area.

Oven is partic. for final cooking of French sticks. (13pp)

KIFO= ★ D11 75232 D/41 ★ SU -797-629
Electric bread baking oven - has heaters built into walls of baking moulds with current fed through guides with sliding contacts

KIEV FOOD IND TECHN 01.12.78-SU-691474
X27 (30.01.81) A21b-01/22
01.12.78 as 691474 (18MI)

The oven comprises a baking chamber divided into zones, conveyor with baking moulds, electric heaters (18) and attachment for supplying current to the heaters. To intensify heat exchange by providing contact heating and to reduce the amount of metal in the oven, the heaters are built into the walls of the baking moulds. The heater current supply is in the form of current-conducting guides (4) connected to the lead ends of the heaters by sliding contacts (19) on the surface of the baking moulds. At the border between the zones of the baking chamber, these guides have inserts of dielectric material. Bul.3/23.1.81. (4pp Dwg.No.2)



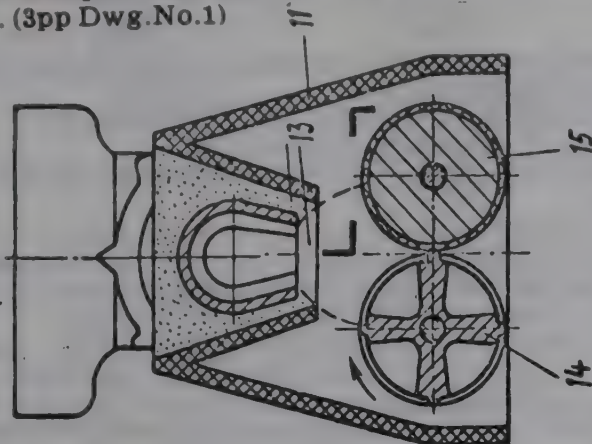
SMAC = ★ D11 75233 D/41 ★ SU-797-630
Stuffed dough item shaping mechanism - has flour bunker with unloading neck round shaping head forming annular clearance for flour

S MACH CONS WKS 14.03.78-SU-591862
 (30.01.81) A21c-09/06

14.03.78 as 591862 (18MI)

The mechanism comprises bunkers with pressure screw conveyors, shaping heads with cavities for dough and stuffing respectively and stamping mechanism. To prevent the dough casing sticking to the stamping mechanism, it has a bunker (11) for flour with an unloading neck. The shaping head is in the cavity of this neck, forming an annular clearance (13) for the passage of the flour.

For items of various shapes and sizes, a set of stamping drums is used, the drums being set in changeable bunkers (11). The mechanism is compact and effectively stops the dough sticking. Bul. 3/23.1.81. (3pp Dwg.No.1)

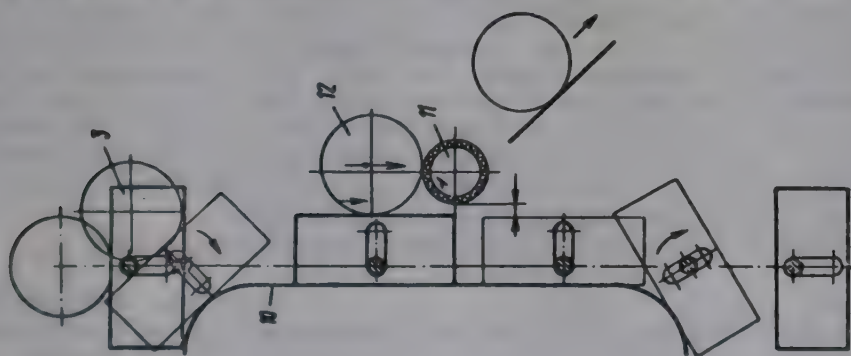


KFOO = ★ D11 75234 D/41 ★ SU-797-631
Dough blank setting out mechanism - has corrugated roller of dia. no more than min. dia. of blank, able to be forcibly rotated

KAZA FOOD IND MIN 10.11.78-SU-684813
 (30.01.81) A21c-13/02

10.11.78 as 684813 (18MI)

The mechanism comprises a conveyor for moving the dough blanks (12), and roller (11) in the unloading zone forming a clearance with the working surface of the conveyor. To prevent deformation and sticking of the dough blanks as they are taken off, the roller is corrugated, with dia. not exceeding min. dia. of



the dough blank, and can be forcibly rotated so that the clearance between the roller and the working surface of the conveyor does not exceed the difference between the min. radius of the dough blank and the radius of the roller. This prevents deformation and eliminates manual removal of stuck blanks. Bul. 3/23.1.81. (4 Dwg.No.2)

FRIY ★ D11 75583 D/41 ★ US 4290-9
Appts. for simultaneous extrusion of dough ribbons - with flared head contg. conical mandrel limiting ribbon curvature

FRITO-LAY INC 10.12.79-US-101701
 (22.09.81) A21c-11/16 B29f-03/06

10.12.79 as 101701 (295HM)

Dough is extruded through a head which forms it into a plurality of ribbons. The dough is delivered downwardly to the head which has a flare section across the end of which is located a die plate. The plate has orifices corresponding to the number of ribbons to be extruded.

A cone-shaped mandrel is supported in the flared section with its base confronting, but spaced apart from, the die plate. It has a base radius extending at least to the outer edges of all the orifices. The confronting surfaces of the mandrel and the flare section are spaced apart to define an outwardly flared annular flow channel.

The appts. is used to produce extruded dough ribbons which are subsequently cut into individual pieces which can be cooked to form a food prod. The tendency of the extruded ribbons to curl is minimised and possibly completely removed. (6pp)

CORP ★ D11 75614 D/41 ★ US 4291-0
Stale-resistant sweet baked food prods. - contg. maltotriose and preservative sweetener

CPC INTERNATIONAL INC 29.06.79-US-053159 (03.04.78-US-892615)
 (22.09.81) A21d-13

29.06.79 as 053159 (478HM)

Staling-resistant, sweet baked goods food prod. consists of starch (I), H₂O, and 15-40% of a sweetener compsn. The sweetener compsn. is a solid, fine, homogeneous dispersion contg. 30-100% by wt. of maltotriose (II).

Also disclosed is the use of other preservative sugars (e.g. maltose) as anti-staling agents, and also the use of higher concentrations of sugar in the prod. to prevent staling. Sweetener compsn. may also contain sucrose, maltose, dextrose or mixts. but preferably contains 30-100% by wt. of (II) and/or maltose (total of pref. 30-100% of a preservative sugar).

Incorporation of sweetener compsns. contg. (II) into the cooled food prods. substantially increases their shelf life without adversely affecting their flavour characteristics. (6pp)

D12: MEAT; FISH PROCESSING

DEUT- ★ D12 73778 D/41 ★ CA 1108-359
Clamp to close animal weasand during slaughtering - longitudinally slotted tube with hinged internal end flap

DEUTSCHER PPTY LTD 01.09.78-AU-005785 (29.05.78-AU-004529)

Q61 (08.09.81) A22b-05/14 F16b-02/10
 23.05.79 as 328177 (1358BZ)

A clamp comprises a tubular member with a slot through the wall from one end to the other and a hinged flap at one end or within the member. The member can readily be applied to the weasand and the flap presses the weasand between its edge and the member inner surface.

The clamp is pref. of plastics, e.g. nylon 66, and the slot is inclined to the longitudinal direction and is wide at one end to form a flared opening and narrow at the other. The flap peripheral edge is pref. relatively thin or is chamfered to provide a sharp edge. The slot may be formed by the gap between the overlapped edges of a quasi-tubular member. (12pp)

MASZ- ★ D12 73786 D/41 ★ DD-149-40
Meat and bone separating screw - has large-pitch intake turn and conical basic helix with inversely conical core

INST MASZYN SPOZYW 24.03.80-DD-219874
 (15.07.81) A22c-17/04

24.03.80 as 219874 (39AS)

A screw for use in the meat industry to separate meat and bones in the fish industry to separate the soft flesh, and in horticulture to produce fruit juice, has a basic helix with a generating line for the outside surface which converges from inlet to outlet and a core with a generating line which converges from outlet to inlet. A central bore to a depth equal to the length of the basic helix is used for a coolant. The intake spiral has a large pitch and extends over less than a full revolution.

Screw produces an increased pressure and results in a higher yield. (7pp)

JOHN/ ★ D12 73787 D/41 ★ DD-149-458
Fish processing machine - cuts off adjustable dorsal part for human consumption

MOHNKE H 20.03.80-DD-219777
(15.07.81) A22c-25/18

20.03.80 as 219777 (39AS)

A machine for processing fish only the dorsel parts are suitable for human consumption, because the ventral parts are infested with parasites, is equipped with a trough link belt conveyor, and two endless belt conveyors for lateral guidance of the fish. A circular blade performs a horizontal cut between the link belt and the side belts. The cut-off back is discharged through an opening and the fish body is passed into a chute.

Process makes fish from new fishing grounds, which have to be worked because of depletion of the conventional sea areas, suitable for human consumption. A three-dimensional adjustment permits an exact division of edible and non-edible parts. (10pp)

HERT- ★ D12 73912 D/41 ★ DE 3011-026
Carcass cutting station - with angular and height adjustment for ergonomically right position

HERTA K SCHWEISF KG 21.03.80-DE-011026
(01.10.81) A22c-17 A22c-18

21.03.80 as 011026 (39HM)

Carcasses of animals, esp. quarters of beef carcasses, are taken to stations for the detachment of cuts from the bones by an overhead monorail system. Adjustable support structures (as regards inclination) and adjustable monorail sections (as regards height) bring the carcass to the ergonometically right position for the execution of the cuts, which are kept stretched by gravity. The cut strips drop on a conveyor and the bones are thrown in a box.

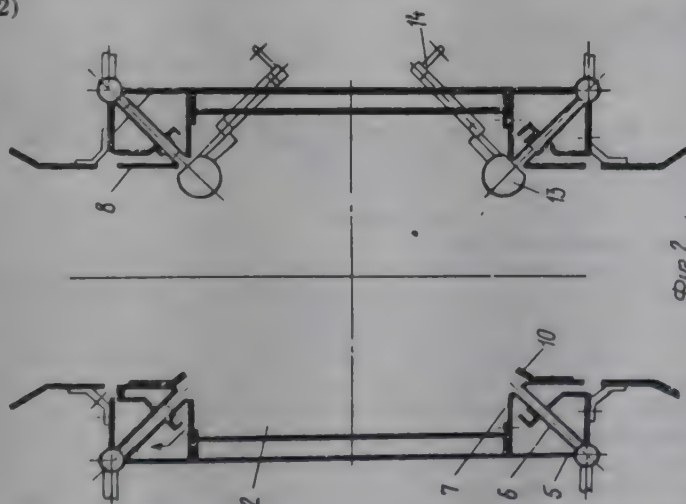
This speeds up the dissection and reduces manual labour to a minimum. (23pp)

POME = ★ D12 75235 D/41 ★ SU-797-633
Pork carcass singeing furnace - has each burner row with burner tunnel, and labyrinth to guide injected air

POLT MEATEQUIP WKS 23.03.79-SU-741847
(30.01.81) A22b-05/08

23.03.79 as 741847 (18MI)

The furnace comprises a heat-insulated chamber with entry and exit walls and vertical rows of gas burners. For better singeing by uniform flame treatment and to preserve the hide, and for convenience, each vertical row of burners has a burner tunnel (7) to form a complete vertical flame, labyrinth (8) to guide the air injected by the burners, vertical board (2) and disc (13), able to be turned to regulate the flame. The vertical boards are in the belly one and the discs on the hide side. This gives more uniform heat intensity, giving better singeing, makes the burners easier to ignite and provides more stable combustion. Bul. 3/23.1.81. (4pp Dwg.No.2)



DOMD ★ D12 75236 D/41 ★ SU-797-634
Meat tissue from bone separation process - creating vacuum to 1-10 mm mercury during passage of meat and bone through electrostatic field

MOSCOW MEAT DAIRY INST 26.02.79-SU-731389
X25 (30.01.81) A22c-17/04

26.02.79 as 731389 (18MI)

The process comprises freezing the cuts of meat, grinding them and separating the meat-and-bone material into meat fractions and bone fraction by passing through an electrostatic field. To prevent fine particles sticking to coarser ones and thus making the sepn. process more efficient, a vacuum, to pressure 1-140 mmHg, is created during the passing of the meat-and-bone material through the electrostatic field. After grinding the material is dispersed at a temp. of -20 to -30 deg.C., and grinding

is done down to particle size 50-3000 microns. The material is thus separated more completely and the proportion of useful product is increased. Bul. 3/23.1.81. (2pp)

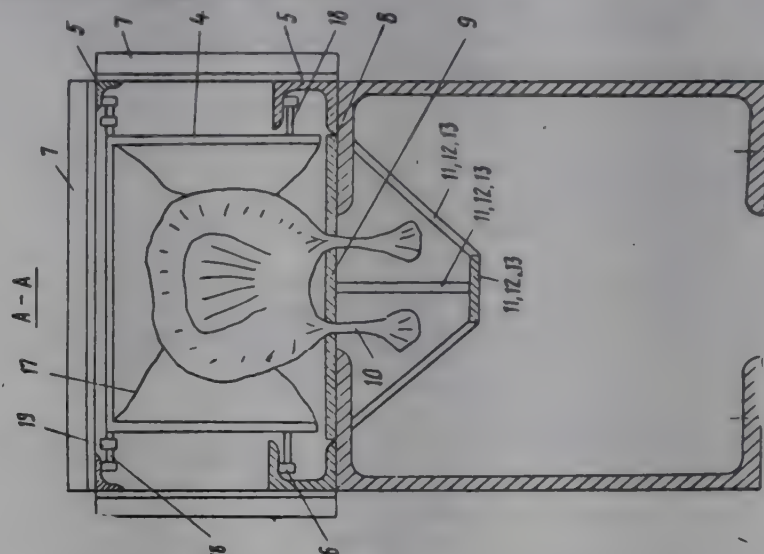
ESIT = ★ D12 75237 D/41 ★ SU-797-638
Poultry carcass feed onto suspension tracks - has belt transporter with trough and conveyor carrying inverted U-plates with clamps

E SIBE TECHN INST 24.07.78-SU-685257
(30.01.81) A22c-21

24.07.78 as 685257 (18MI)

The feed comprises a feed belt transporter with trough and conveyor adjacent to it, carrying inverted-U- shaped plates (4) with clamping mechanisms (17) to grip the carcasses.

The carcass, going onto the belt conveyor, proceeds along the trough to a plate conveyor, which picks it up by the grip mechanism (17) and transports it in a half-circle to the upper horizontal part. The legs project into two special grooves (10) and go to the end of the upper part, where one is intercepted by two drive levers (on and off switches) at entry and exit of the upper horizontal part. The projecting legs switch off the drive. Bul.3/23.1.81. (4pp Dwg.No.3)



FARE = ★ D12 75238 D/41 ★ SU-797-636
Fish dressing machine charging appts. - has store divided by blinds into compartments each equal in length to largest fish and fitted with photoelectric sensor

FARE POLY 13.12.78-SU-697283
X25 (30.01.81) A22c-25/08

13.12.78 as 697283 (840WD)

Appts. for charging fish into a fish-dressing machine and contg. a conveyor with cassettes, a spring-mounted rocking chute, a fish store with blinds, Fish Present and clock sensors and a control unit for the chute-rocking drive has greater productivity and reliability in processing of fish. By dividing the store by the blinds into compartments equal in length to the largest fish and fitting a photoelectric Fish Present sensor in each compartment, stoppages no longer occur owing to fish becoming wedged in the store.

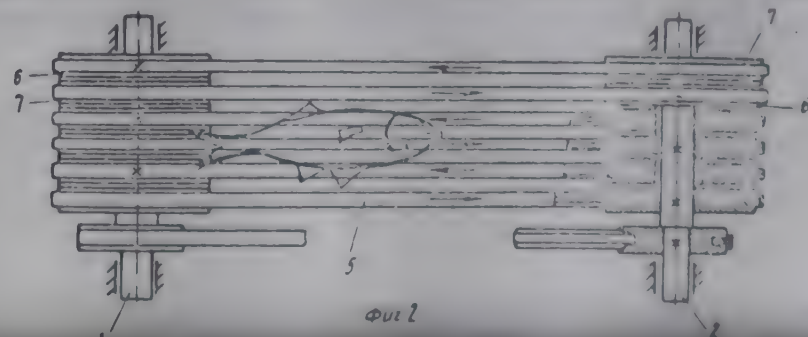
Formerly the store was designed for the largest fish being caught. But two fish each about one-half of the max. size could wedge the store. Now an even flow of fish is ensured with the fish head first. Bul.3/23.1.81. (5pp)

AZOV = ★ D12 75239 D/41 ★ SU-797-637
Fish aligning mechanism - has series of endless belts between two pulley axes, forming horizontal working platform

AZOV-BLACK SEA FISH 18.07.78-SU-646567
(30.01.81) A22c-25/12

18.07.78 as 646567 (18MI)

The mechanism comprises two flexible endless belts (5) moved towards each other. For better alignment, when the fish is fed in heaps, it has auxiliary pairs of flexible belts. All the belts together form a horizontal working platform. The distance



between them does not exceed the min. width of point of contact of the aligned fish with the platform.

The fish heaped onto the working platform is aligned by the tray and flexible belts (5) longitudinally, contacting two or more belts moving opposite ways. It is transported by those belts moving tail to head (against the scales). Thus the fish goes out either end, always head first. Bul. 3/23.1.81. (2pp Dwg.No.2)

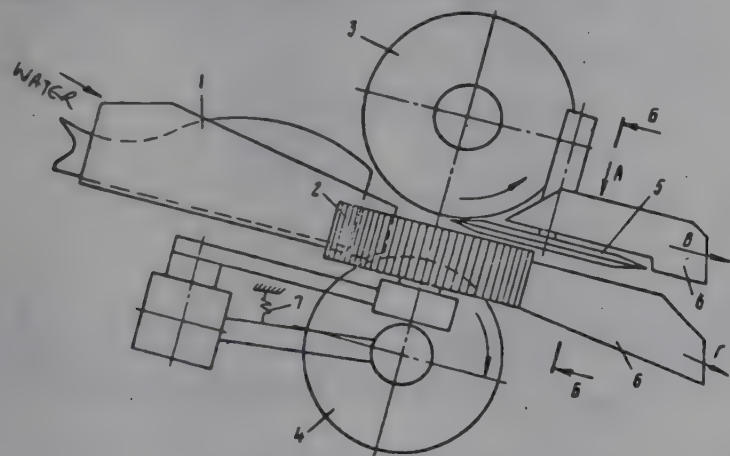
NBAS= ★ D12 75240 D/41 ★SU-797-638
Fish filleting mechanism - has auxiliary lower pressing roller, upper roller and pull-through roller with axes in same plane

N BASIN SEVTEKHRYBP 12.01.78-SU-569360

(23.01.81) A22c-25/14

12.01.78 as 569360 (18MI)

The mechanism comprises loading and unloading trays (1,6), two side pull-through rollers (2), upper pressing roller (3) and horizontal knives (5) against each other to cut off the belly. To fillet fish without first slitting the belly, to enable a wider variety of fish to be filleted and to raise productivity, it has an auxiliary lower pressing roller (4). All the rollers are set so that their axes of rotation are in the same plane. The horizontal knives are mounted directly above the pullthrough rollers. The lower pressing roller is fitted so that it can be moved relative to the upper one. Bul. 3/23.1.81. (3pp Dwg.No.1)



FARE= ★ D12 75241 D/41 ★SU-797-639
Fish gutting process by vacuum suction from beheaded fish - sucking water into vacuum nozzle in interim period to exclude air

FARE FISHING IND 25.04.78-SU-612947

(23.01.81) A22c-25/14

25.04.78 as 612947 (18MI)

The process comprises cutting off the head and sucking out guts through the neck by vacuum. To prevent air being sucked during the inter-operation period, the suction is done in a liquid, i.e. water.

The fish are taken one at a time from a bunker and laid in wells of a transporter. The heads are cut off by a disc knife. The fish enter the vacuum zone. The guts are sucked out of beheaded fish and go along a pipeline to a receiver from where they are periodically unloaded. In the inter-operation period (before the next fish reaches the vacuum nozzle), water is sucked in, creating a hydraulic lock preventing the entry of air. Bul. 3/23.1.81. (2pp)

MOMO= ★ D12 75249 D/41 ★SU-797
Prod'n. of edible albumen from dried livestock blood - two-stage heat treatment of dried blood

MOSC MOSMYASOPROM 14.09.78-SU-689011

(23.01.81) A23j-01/06

14.09.78 as 689011 (314WD)

Edible albumen for use in meat processing is obt'd. by drying blood of slaughtered livestock and heat treating it in two stages at 65-75 deg.C. and 18-23 deg.C, each stage lasting 2-3 days. The heat treatment inactivates the microflora.

In an example, dried blood is packaged in 18 kg. bags and heated at 65 deg.C. for 3 days and then at 18 deg.C. for 3 days. Bul. 3/23.1.81. (2pp)

GOOD/ ★ D12 75428 D/41 ★US 4290-2
Dressing-knife guide for hunters - slotted to house blade and with rounded tip for raising hide

GOODWIN J 12.09.79-US-074732

(22.09.81) A22b-05/16

12.09.79 as 074732 (006HM)

The rounded tip of the slotted guide extends forwardly of the knife blade tip, and has a top surface extending up beyond the tip and a bottom surface extending down below it.

The upward extension distance of the top surface deflects animal hide away from the incision as the knife is pushed forward, and pref. the bottom surface extension distance is enough to deflect intestines away from the incision to avoid cutting them open and spoiling the carcass. (4pp)

D13: OTHER FOODSTUFFS

FERO ★ D13 73747 D/41 ★BE-888-943
Detecting butyric acid generating bacteria in milk - by incubating in sealed container holding culture medium and inert solid

FERROSAN 22.05.80-SE-003859

S03 (D16) (16.09.81) A23c G01n

22.05.81 as 888943 (1251HM)

Appts. for detecting the presence of butyric acid generating bacteria (Clostridium) in milk is a sealed, cylindrical container which has been sterilised in an autoclave and which contains a culture medium (for anaerobic or microaerophilic cultures) and an inert material (I) which solidifies at below 40 deg.C and is less dense than the medium. The milk sample is introduced into the container under aseptic conditions.

Pref. the container is filled with Reinforced Clostridial Medium (RCM) plus a silicone or paraffin of m.pt 56-58 deg.C as (I). Method for detecting these bacteria comprises introducing a milk sample into the container through a removable, sterilised plastic tube, then heating on a water bath at 80 deg.C for 10 min and incubating at 31 deg.C for 4-7 days. The presence of the bacteria is indicated by formation of gas.

This method is more economical, simpler and easier to manipulate than the known Winzirl procedure. The culture medium remains sterile and chemically stable for many months, and the containers are easier to transport. As few as 10 spores per ml can be detected. (14pp)

KORT/ ★ D13 73770 D/41 ★CA 1108-10
Feed mill for producing animal feed from grain - has separate rotating chopper and crushing rolls

KORTE G J 29.08.77-CA-285630

C03 P41 (01.09.81) B02c-09/04

29.08.77 as 285630 (295NS)

Mill both chops and crushes grain. It consists of a hopper in which is positioned an elongate rotatable cutter located adjacent to the hopper outlet. The cutter has paddles for chopping and feeding the grain through the outlet. Beneath the hopper outlet is a pair of defined crushing rolls. The rolls have cylindrical surfaces formed with indentations arranged in a regular diamond pattern of intersecting rows extending helically about the rolls. The indentations are of inverted pyramid shape and are surrounded by protuberant edges. Crushed grain is removed by a conveyor from beneath the crushing rolls.

The mill chops and crushes various types of grain or vegetable to produce an animal feed. The grain kernels are cracked or broken in several places but are only partially crushed. This facilitates digestion by the animals so that they obtain maximum nutrient value. (6pp)

CHLA- ★ D13 73868 D/41 ★DE 3009-90
Animal feed additive contg. alkanolic diethanolamide - and op. choline and non-steroidal growth promoter

CHEMS LAB LANGE FW 14.03.80-DE-009950

C03 (01.10.81) A23k-01/16

14.03.80 as 009950 (1251MR)

Animal feed additive contains 0.01-1 wt.% diethanolamide (formula (I))

holine or its salts and (b) a non-steroid growth promoter such as itrovin (1,5-bis(5-nitro-2-furyl)-1,4-pentadiene-3-one midonohydrazone hydrochloride). The ratio (I):(a):(b) is 1:10:00:40-500 by wt., esp. 1:50:150. Esp. (I) is coconut fatty acid diethanolamide (Ia).

(I) reduces the time needed for the animals (pigs, ruminants, poultry, esp. broiler fowl) to reach the required body wt. and/or results in a saving of animal fodder. Its effect is synergistically enhanced by (a) and/or (b). (I) are already known as foam stabilisers for use in cosmetics.

Pref. (I) is incorporated at 0.05-0.5 wt.%, and is added to the feed as a premix with standard carriers. (14pp)

BENC ★ D13 73891 D/41 ★DE 3010-832
Pure soluble whey proteins prodn. - by PPTN. of ultrafiltration concentrate with polar solvent

BENCKISER-KNAPSACK 21.03.80-DE-010832

(01.10.81) A23c-09/14 A23j-01/20

21.03.80 as 010832 (1251RH)

Prod. of pure, soluble whey proteins (I) comprises adding at least one polar, organic solvent, esp. acetone, to a whey-protein concentrate obtd. by ultrafiltration, then sepg., neutralising and drying. Suitable starting materials are sweet or acid whey, or conc. whey.

Acetone pptn. is pref. at 0-30 (18-22) deg.C and pH 4.3-4.7 (4.5), using 25-50 (35) vol.% acetone (based on the vol. of the aq. phase). The centrifuged protein ppte. is neutralised and dissolved up at pH 7.2-7.5, then opt. the pH is lowered to 6.4-6.5.

(I) are recovered in pure, undenatured form practically free of lactose and salts, and acetone is easily and quantitatively removed (I) are useful for incorporation into foods, e.g. processed cheese, pastes, bakery goods and ice cream. (7pp)

BARN- ★ D13 73892 D/41 ★DE 3010-836
Sugar free chewing gum of high water content - comprising gum-base, solid and liq. sorbitol and aroma agent

BARNANGEN DEUTSCHLA 21.03.80-DE-010836

(01.10.81) A23g-03/30

21.03.80 as 010836 (1251BJ)

Chewing gum comprises (wt.%) chewing gum base 18-35 (25-31)%, total water 8-4 (10-13)%; aromatising agents 0.7-2 (0.8-1.2)% and sorbitol 49-73%, esp. 27-33% solid sorbitol and 37-43% liq. sorbitol. The compsn. is made by warming the base material to 40-45 deg.C and kneading while adding solid sorbitol. When this has mixed in sufficiently, sorbitol dissolved in water is added, followed by the aromatising agent and opt. lecithin, and the whole mass kneaded.

A sugar-free gum, esp. useful as a soft bubble gum, is prod. which does not require fatty acid derivs. etc. to be added as softener (the high water content provides adequate softening). A satisfactory degree of sweetness is achieved with a relatively small amt. of sorbitol, without need for any saccharin. (10pp)

CTAF- ★ D13 73948 D/41 ★DE 3011-435
Compsn. contg. maleuric acid for treating orotic acid deficiency - and as orotic acid replacement, e.g. for improving growth and fertility in humans, animals and plants

CTA-FINANZ AG 25.03.80-DE-011435

B05 C03 (01.10.81) A01n-47/34 A23k-01/16 A23l-01/30 A61k-31/19 C09k-03

25.03.80 as 011435 (1251BZ)

The use of maleuric acid (I) or its pharmaceutically acceptable salts or esters in fodder additives, dietetic foods, or veterinary or pharmaceutical compsns. for treating orotic acid deficiency and/or as a replacement for orotic acid to encourage the growth or enhance the fertility of animals and plants (higher plants or useful microorganisms) is new. Compsns. contg. (I) or its derivs. are also claimed. Pref. the unit doses contain 0.1-1000 mg (I) and the daily dose in humans or animals is 0.1-100 mg per kg per day.

Pref. unit doses contain 10-300 mg (I) and are formulated for oral (pref.), rectal or parenteral administration. The max. daily dose is esp. 30mg per kg.

Compared with orotic acid, (I) is easier and cheaper to prepare, and its toxicity, relative to the effective dose, is very low. Activities exemplified include stimulating growth of plants and yeasts; liver-protecting effect; inhibiting enzymes such as amino acid deaminase, insulinase (insulin-stabilising effect) or amino acid decarboxylase (prevention of enterotoxaemia); and regulating intestinal microflora (encouraging Lactobacilli at expense of coliforms). (16pp)

HC.CONH.CO.NH₂

HC.CO₂H

(I)

HENK ★ D13 73985 D/41 ★DE 3011-807

Fat compsn. suitable as milk fat substitute - contains fatty acid butyric acid tri:glyceride and opt. hardened fat or oil

HENKEL KG AUF AKTIEN 27.03.80-DE-011807

(01.10.81) A23d-03/02

27.03.80 as 011807 (1251RH)

Fat with properties resembling milk fat comprises (a) 10-50 (12-18) wt.% fatty acid-butyric acid triglyceride (I) made by esterifying mainly 16-20C fatty mono-and/or di-glycerides with butyric acid (anhydride) and (b) 50-90 (82-88)wt.% of one or more 12-20C fatty acid-contg., opt. hardened, fats or oils.

Esp. the fat contains 3-5% butyric acid (on total fatty acids) and can also include 6-10C fatty acids to provide a fatty acid compsn. similar to that of natural butter fat.

The compsn. is used as a replacement for milk fat. It can be inexpensively prepd. from animal or vegetable fats available in large quantity and has improved storage stability. (9pp)

HENK ★ D13 74000 D/41 ★DE 3011-881

Fat for replacing coconut oil in confectionery - is a mixt. of 12 to 18 carbon fatty acid tri:glyceride derivs.

HENKEL KG AUF AKTIEN 27.03.80-DE-011881

(01.10.81) A23d-05 A23g-01 A23g-03

27.03.80 as 011881 (1251BZ)

A compsn. (A) for replacing coconut oil (B) in confectionery is a fatty acid triglyceride mixt. obtd. by esterifying a mixt. of 12-18C fatty acids with glycerine. The compsn. of the fatty acid mixt. is 12C 40-45 (41-44)%; 14C 15-20 (15.5-18)%; 16C 8-18(9.5-16.5)%; satd. 18C 2-3(2-2.8)%; mono-unsatd. 18C 20-28(21.5-25)%; di- and tri-unsatd. 18C 3-7(3-6)%.

(A) has physical properties very similar to those of (B), but contains no 6-10C fatty acids which are responsible for the 'soapy' taste detected in chocolate fillings made with (B) after prolonged storage. (7pp)

FOOD- D13 14427 T/09 =DS 2141-329

Solid product prepn from maize syrup - of high fructose content used in baking ice-creams etc

FOOD TECH INC (FOO) 20.08.70-US-065737

(01.10.81) *BE-771-409 A23l-01/09

18.08.71 as 141329 (068JB)

A carbohydrate syrup with a high content of fructose is dehydrated and mixed with non-gelatinised starch having a gelatinisation temp. of at least 65.6 deg.C. The resulting paste is heated to a temp. 8.3-16.7 deg.C below this gelatinisation temp. until the starch is conditioned so that it can only partly be gelatinised. The paste is then heated to gelatinisation temp. and afterwards to above this temp. to dry the prod.

Pref. an emulsifier such as hydroxylated lecithin and honey are also present. The paste may be deaerated while being heated as a thin film on two rotating rollers. The prod. is a dry, non- glutinous solid with good resistance to moisture. DS (7pp)

RHON D13 25701 C/15 =DS 2939-200

Sulphate-free phosphoric acid prodn. of food use - by extraction of organic phosphoric acid soln. with water and contacting with barium ions (BE 28.3.80)

RHONE-POULENC INDUSTRIES 29.09.78-FR-027887

E36 (01.10.81) *DE2939-200 C01b-25/46

27.09.79 as 939200 (068JB)

A pure phosphoric acid, free from sulphate and suitable for use in the food industry is obtd. The phosphoric acid is purified in three stages by solvent extn. In the first stage an impure phosphoric acid soln in a water-immiscible organic solvent, e.g. tributylphosphate is contacted with an aq. soln from stage 3 and the organic phase is sepd. from the aq. phase.

In stage 2 the organic phase is contacted with a soln. contg. Ba ions and the organic phase sepd. from the aq. phase contg. pptd. BaSO₄. The resulting organic phase is passed to stage 3 where it is treated with water or aq. phosphoric acid. The phases are sepd., the organic phase being treated to recover pure phosphoric acid and the aq. phase being passed to the first stage. PS (5pp)

MITN ★ D13 74087 D/41 ★EP -36-575

Absorbent for oxygen and carbon di:oxide - comprising alkali and iron particles and electrolyte, esp. for use in storing coffee

MITSUBISHI GAS CHEM IND 21.03.80-JP-035900 (17.03.80-JP-033654)

E36 (30.09.81) A23f-05/10 C09k-03

12.03.81 as 101836 (1251HM) (E) No-Citns. E(DE FR GB IT)

An absorbent for oxygen and carbon dioxide comprises (a) particles of hydrous alkali covered by separator particles, (b) iron powder and (c) an electrolyte. Pref. the equilibrium relative humidity of (a) is controlled so that the relative humidity at 25 deg.C of a nitrogen-filled enclosure of the absorber is over 30%.

Esp. (a) are Ca(OH)₂ particles over 0.5 mm in size, impregnated with water or a moisture-conditioning soln., esp. an aq. soln. of hydrophilic (in)organic cpd. Alternatively, (a) are carrier

particles of low water solubility, e.g. diatomaceous earth or perlite, impregnated with aq. alkaline soln., esp. alkali metal hydroxide, carbonate, tert. phosphate, silicate or aluminate. The separator articles are e.g. gypsum, CaCO₃ or active carbon, of size below 100 mesh.

The absorbent is esp. used in storage of roasted coffee powder or beans in sealed packages. The oxygen-absorbing capacity of the iron is retained even in a dry atmos. and is not reduced by the alkali component since there is no contact between the two. (13pp)

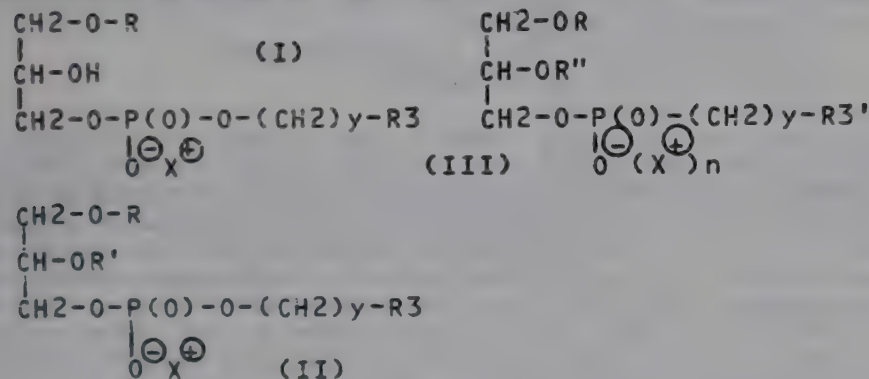
PLAC ★ D13 74091 D/41 ★EP --36-583
1-O-Acyl-glycerol-3-phosphoric acid haloalkyl ester(s) - prepd. by phospholipase catalysed hydrolysis of 2 O-acyl cpds. or hydrogenolysis of 2-O-benzyl cpds.

MAX PLANCK GES WISSENSCH 26.03.80-DE-011738
B04 E11 F06 (D18 D21) (30.09.81) C07f-09/09 C12p-09
13.03.81 as 101863 (280HM) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

1-O-Acyl-glycerol-3-phosphoric acid haloalkyl esters (I) are new. In (I) R is an acyl residue -CO-R₁ in which R₁ is opt. unsaturated 1-25C alkyl; R₃ is halogen; y is 2-12; and X⁺ is one equivalent of a mono- or divalent cation. Also new is a process for the prodn. of glycerol-3-phosphoric acid derivs. of formula (III). In (III) R₃' is halogen or a group -N(+)X₁X₂X₃ in which X₁, X₂ and X₃ are H or 1-6C alkyl; n is 0 or 1; and R is H or an acyl residue -CO-R₂ in which R₂ is opt. unsaturated 1-25C alkyl, R being other than H when R₃ is halogen. In prodn. of (III) (I) is acylated with an acid anhydride (R₂CO)₂O and/or reacted with a cpd. NX₁X₂X₃.

(I) is prepd. from cpds. of formula (II). In (II) R' is an acyl residue -CO-R₂ or benzyl by hydrolytic removal of an acyl residue R' in the presence of phospholipase A₂ or by catalytic hydrogenolysis of a benzyl residue R'.

(I) and cpds. (III) in which R₃' is halogen are intermediates for glycerine phosphatides (III) in which R₃' is NX₁X₂X₃, which in turn are useful as agents for influencing cell membranes in warm-blooded animals, as physiologically innocuous surface-active agents (e.g. for use in foods or cosmetics), and as antioxidants in the leather and textile industry. (21pp)



KONT- ★ D13 74105 D/41 ★EP --36-615
Storage gas producing device - with solid reactant in main and liquid reactant in auxiliary box

KONTEK TECN CONSERV 26.03.80-IT-012495
(30.09.81) A23b-07/14
17.03.81 as 101980 (39RH) (G) No-Citns. E(AT BE CH DE FR GB LI LU NL SE)

A box for use in the cold storage of food, e.g. fruit, vegetables etc. in a gas atmosphere, consists of a rectangular plastic tray with a corrugated cardboard cover which contains a solid not spontaneously reactive component for a storage gas. An auxiliary vessel on a ledge in its upper part encloses a liq. component. To initiate a gas prodn., the cover and the auxiliary vessel are pierced by a long needle so that the liquid can react with the solid.

This is a cost and labour saving method of gas storage which requires no skilled manpower to operate gas bottles. It is a safe method which satisfies all safety regulations. (17pp)

SCHE- ★ D13 74128 D/41 ★EP --36-855
Vacuum coffee pack - folded from gas-tight paper plus polymer film with self-sealing coatings at seam areas

SCHEUCH FOLIEN PAPI 21.03.80-DE-U07751
P73 Q32 Q34 (30.09.81) B32b-07/06 B32b-27/10 B65d-33/20 B65d-65/40 B65d-81/20

22.03.81 as 102150 (1007DH) (G) US3228168 GB-556586 FR1408628 GB-916266 DE1704900 US4064302 GB1088005 E(AT BE CH DE FR LI NL)

Pack for foodstuffs, partic. for coffee, is an evacuated gas-tight vacuum bag made of a gas-tight substrate film with a profiled self-sealing layer on the sides facing each other which are stuck together.

A sheet of substrate film (3) which is coated with cold self-sealing material (4) where the film is to be sealed after folding

The pack is produced at very high speed, can be sealed again by simple pressure after opening and therefore minimises loss e.g. coffee aroma. (14pp)

GENO ★ D13 74175 D/41 ★EP --36-7
Rapidly soluble sweetener for dry beverage mixes - is co-dried mixt. of fructose, dextrinised starch and opt. sucrose

GENERAL FOODS CORP 17.03.80-US-130941
(30.09.81) A231-01/23 A231-02/38
16.03.81 as 301096 (1251AS) (E) GB1397845 DE2248455 DE221011 EP-----77 DE2857000 US3836396 US3956009 CH-589425 E(AT BE CH DE FR GB IT LI LU NL SE)

Rapidly soluble sweetener (A) of density below 0.4 (esp. below 0.3)g per cc is a co-dried mixt. of 5-85% fructose, 5-80% dextrinised starch of dextrose equiv. below 15 (esp. 0.5-10), and 80% sucrose (all dry wt. basis). Esp. the compsn. is in the form of a solid soln. and has moisture content below 3%.

(A) is made from an aq. soln. of the appropriate components by introducing a gas into the soln. then drying under conditions which retain enough gas to provide the low-density, porous structure. Esp. the soln. is discharged from a spray nozzle into a stream of drying air.

(A) are esp. useful in dry beverage mixes, esp. those contg. carbonating agent. They are free-flowing, non-hygroscopic and dissolve more rapidly than known sweeteners, esp. they dissolve without stirring so loss of carbonation is minimised. (25pp)

KURE ★ D13 74177 D/41 ★EP --36-74
Prodn. of collagen contg. material - involves finely dividing refined collagen, used for food casings etc.

KUREHA CHEM IND KK 17.03.80-JP-033639 (17.03.80-JP-033637)

(30.09.81) A22c-13
17.03.81 as 301115 (+ 17.3.80-JP-033638) (478 NS) (E) No-Citns E(DE FR GB NL)

Prepn. of collagen (I)-contg. material comprises finely dividing refined (I) to afford a dispersion of (I) fibres which is then formed into the desired material. In the process the refined (I) is either (a) immersed in a mixt. of an aq. acidic soln. and hydrophilic organic solvent, or (b) swelled with an aq. acidic soln. followed by dispersion of the resultant swollen material in a hydrophilic organic solvent. Swollen refined (I) is then finely divided. Amt. of solvent (a) or (b) is pref. 25-97% by wt. of total aq. acid and solvent. Solvent is pref. a low mol.wt. alcohol or ketone (MeOH, EtOH, Me₂CO, etc.), ether (e.g. dioxane), or glycol (ethylene glycol etc.). Acid in (a) and (b) may be HCl, HOAc, citric acid, etc. and amt. is to give Ph 2-4, pref. 2.5-3.8. Pref. gelatin or a soluble collagen (0.05-2 wt. pts./dry wt. pt. of refined (I)) is incorporated into the prepd. (I) material by addn. to the mixt. in (a), the solvent in (b), or the aq. dispersion of (I) fibres obtd. after finely dividing the swollen material.

Process using the organic solvent affords (I) materials which possess partic. strong tear strengths but avoids the use of aldehydes or acetylating agents. (14pp)

LTEL- ★ D13 74242 D/41 ★FR 2476-98
Stabilising vitamin/C against oxidn. in food and pharmaceuticals by encapsulating particles with film of gum arabic

LTE LAB TECH EURO 28.02.80-FR-004428
B03 E13 (B07) (04.09.81) A23g-03/30 A231-01/30
28.02.80 as (597B)

For chewing gums and similar food prods., each small particle of vitamin C is coated with a fine film of gum arabic. The microencapsulated vitamin C is then incorporated in the bulk of the food prod. at a temp. not above 50 deg. C and during a time not above 6 mins.

The ground granulated vitamin C is pref. sprayed with a conc. syrup of gum arabic in a rotating drum followed by drying with agitation below 40 deg. C. Incorporation is pref. at 40-50 deg. C for 1-3 mins. The pH of the encapsulated vitamin is pref. adjusted to 2-3 using nitric or tartaric acid. In another embodiment the mass obtd. contg. the microencapsulated vitamin is mixed with the rest of the additive material required for the final prod. with rapid cooling in up to 5 min., pref. 3.

The process is applied to food and pharmaceutical prods. It stabilises the vitamin against oxidn., thereby enabling correct dosing and avoiding the need for excess to allow for oxidn. loss. (11pp)

NATT D13 67935 B/37 = GB 1599-441
Reagent soln. for efficient, pollution-free starch phosphorylation - comprising an alkali metal tri:poly:phosphate, water and an acid

NAT STARCH & CHEM CORP 15.05.78-US-905272
A11 F09 (A97) (07.10.81) *US4166-173 C08b-31/06
25.05.78 as 022304 (974TM)

Starch is phosphorylated by impregnating a starch cake contg. not more than 45 wt % moisture with 2-30 wt % of reagent soln.

arch. (I) contains 20-35 wt.% alkali metal tripolyphosphate, and a water-soluble acid of pKa less than 4.7 to give the soln. a pH of 2.8-3.0.

Pref. the cake is impregnated with the soln. in a centrifuge. Pref. it has an original moisture content of 35-44%. Pref. it is impregnated with 3-10 wt.% of (I). Pref. (I) has a pH of 4.2-4.8. (9pp)

CHRI- D13 25801 A/14 = GB 1599-618
Proteinaceous food made by controlled fermentation of waste water - partic. effluent from industrial mfr. of sauerkraut
CHRIST FILS SA 08.08.77-FR-024342
(D15 D16) (07.10.81) *FR2356-604 C12m-01/38 C12n-01/14
4.05.78 as 022150 (006TM)

Appts. for deriving protein material from residual water, specifically yeasts from sauerkraut liquor, comprises a fermentation vat with a bottom agitator and a top foam separator, the vat being fed with a mixt. of liquor and nutritive via a metering system following a static mixer.

The fermentation process is controlled continuously w.r.t. temp. and O₂ content and H₂ ion concentration. Discharge of treated liquor is via a defoaming vat, a centrifugal separator, a cooling tank, and a drum dryer with discharge conveyor. (4pp)

ALFA ★ D13 74296 D/41 ★ GB 2072-480
Salting of milled cheese curd - by spraying with salted whey which is recycled to prevent mineral loss
ALFA-LAVAL AB 28.03.80-GB-010482 (20.03.80-GB-009465)
(07.10.81) A23c-19/06
8.03.80 as 010482 (295RS)

Cheese curd is salted by moving milled cheese curd through a treatment zone where it is sprayed with a liq. formed of cheese whey and salt. The liq. is drained from the milled curd. Pref. the milled curd is formed into a mat on a moving drainage conveyor which carries it through the treatment zone. Pref. the curd on the conveyor is agitated to provide a uniform distribution of the liq. The drained liq. is collected and recycled after filtering and heating to a pasteurising temp.

The method gives an even distribution of the salt in the milled curd without any appreciable loss of other mineral salts. (5pp)

DMVC- ★ D13 74297 D/41 ★ GB 2072-481
Cheese mfr. - flowing brine over mould pressed cheeses in racks
DMV-CAMPINA BV 28.03.80-NL-001873
P13 (07.10.81) A01j-25/16
26.03.81 as 009605 (1358AS)

Curd is pressed in a mould, then brined by flowing brine over the cheese, and finally pre-dried and cured. After pressing the cheese may be circulated and placed in mobile racks with tiers of liq. permeable structures for brining by passing the racks under a fixed watering system.

The cheeses are pref. left in the racks for pre-drying and curing. Cheeses are pref. treated with a fungicide penetrating the rind simultaneously with brining. The racks pref. have freely suspended nets of flexible threads. The method provides rapid efficient brining. (6pp)

MEIJ ★ D13 74345 D/41 ★ GB 2072-679
Low-carbogenic sweetener compsn. comprising oligosaccharide(s) of one to four molecules of fructose bound to sucrose
MEIJI SEIKA KAISHA 12.12.80-JP-174667 (31.03.80-JP-040193)
B03 E13 (D16) (07.10.81) A23l-01/23 C12p-19
3.03.81 as 008915 (476BZ)

A new product consisting of oligosaccharides having 1-4 molecules of fructose bound to sucrose is prep'd. by reacting sucrose in the presence of fructosyl transferase. The product of this process, which contains, in addition to the oligosaccharides, unreacted sucrose and glucose and fructose may be selectively catalytically reduced to convert the two last-named sugars to sorbitol and mannitol.

The new product is low-carbogenic sweetener. The oligosaccharides it contains may be isolated and purified but the mixture is pref. used as it is. The oligosaccharides do not react with dextran sucrose to produce insoluble dextran, which is the main cause of dental caries, and they also suppress the formation of insoluble dextran from the sucrose. The product has a sweetness of 60-80 (sucrose is 100), has about the same viscosity, freezing point depression and osmotic pressure as sucrose, has excellent moisture retention properties and is non-crystalline. The reduced product contg. sorbitol and mannitol is also a low-carbogenic sweetener compsn., and the amount of lactose produced from this compsn. by the action of microorganisms is only about 20% of that produced by sucrose, and is also less than that produced by the non-reduced product. (11pp)

MEND/ ★ D13 D/41 ★ IT 1051-718
Easter egg filled with sweets and novelties
MENDOZZA G 29.04.85-IT-009621
(20.05.81) A23g

KERA- ★ D13 D/41 ★ IT 1051-844
Carob fruit sugars reduction - used in animal fodder prodn.
KERATOS SRL 19.12.75-IT-030546
C03 P14 (20.05.81) A01k-00/*

WAKD ★ D13 74471 D/41 ★ J5 6106-560
Conjugated protein prodn. - by mixing partially decomposed casein alkali metal salt with protease and heat-coagulating protein

WAKODO KK 30.01.80-JP-009700
A11 (24.08.81) A23j-03 A23l-01/32
30.01.80 as 009700 (5HM)

The conjugated protein is prep'd. by mixing (a) a casein alkali metal salt which is decomposed to a degree of 15-35% (expressed as soluble nitrogen ratio) with protease (e.g. trypsin, papain, etc.) and (b) heat-coagulating the protein. The casein alkali metal salt (a) does not have gel-forming properties by itself, but the conjugated protein prep'd. as above has stronger gel-forming properties than all of its constituents. By changing the proportion of (a):(b) a conjugated protein of optional gel-forming properties is obtd. The casein alkali salt (a) has low sensitivity to heat and by combining it in suitable amt. the heat-sensitivity of the obtd. conjugated protein is controlled. It has wide use as a food material. The reason why the conjugated protein has higher gel-forming properties than its constituent proteins is not clear but it is assumed that the partly decomposed casein alkali salt and heat-coagulating protein react to form crosslinkages between molecules and the crosslinkage exhibits strong gel-forming properties. (3pp)

KODA- ★ D13 74472 D/41 ★ J5 6106-563
Granulating guar gum using kneading agent - of methyl-cellulose in solvent mixt. of ethanol and water
KODAMA KK 25.01.80-JP-007633
A97 (24.08.81) A23l-01
25.01.80 as 007633 (5BZ)

Method comprises kneading powdery guar gum with the kneading agent prep'd. by combining methyl-cellulose in solvent mixt. composed of ethanol and water in the wt. proportion of 2:3:3:2, granulating the mixt., drying the granules and regulating their size.

Guar gum is composed of galactomannan which swells 50-100 fold in vol. with cold water. Tried as dietetic food it was found difficult to take in powder form because it swelled enormously in mouth. Also it has been reported that guar gum shows curing effect on diabetes. To granulate guar gum proper kneading agent is required. The above kneading agent can impregnate guar gum powder without swelling it.

Methylcellulose is combined in an amt. of 1-5 (esp. 3) w/w% in the kneading agent and the kneading agent is used with the wt. proportion of guar gum: kneading agent of 4:3:3:4, pref. (4:3). The drying is carried out to moisture content of ca. 4 w/w%. The obtd. granular guar gum shows the swelling time of 90-110 seconds. Thus one can easily take it and can feel the fullness of stomach. (3pp)

MIYA- ★ D13 74473 D/41 ★ J5 6106-578
Vegetable polyhydric phenol-contg. cold drinks and gelatinous foods - clarified by combining with condensed phosphate
MIYAGIKAGAKU KOGYO 31.01.80-JP-009419
(24.08.81) A23f-03/16 A23f-05/24 A23l-01/04 A23l-02
31.01.80 as 009419 (5HM)

Method comprises combining at least 0.02 w/w% of condensed phosphate in cold drinks contg. vegetable polyhydric phenol partic. tannin or gelatinous foods prep'd. by mixing the drink with thermo-reversible gellable protein. When food contg. large amts. of tannin such as black or green tea, coffee, etc. is extracted with hot water, a hot clear extract is obtd. When the hot extract is cooled, the extract clouds. If the hot water contains polyvalent ions such as alkaline earth metal, Fe etc. brown or red brown ppt. is formed in the extract. Gelatinous foods prep'd. by mixing the extract with thermo-reversible gellable protein such as gelatin and combining the mixt. are usually cloudy. Condensed phosphate clarifies the cold drinks or gelatinous foods or prevents their clouding.

The clouding by the reaction between tannin and gelatin is specific to gelatin and is used as the confirming test for gelatin by the Japanese Pharmacopoeia. (6pp)

TOAG ★ D13 74474 D/41 ★ J5 6106-580
Stabilising agent for fruit and vegetables - comprises iron type oxygen adsorbent, hygroscopic or deliquescent salt, and soluble acidic material for maintaining freshness

TOA GOSSEI CHEM IND LTD 29.01.80-JP-008365
(24.08.81) A231-03/34

29.01.80 as 008365 (5RP)

Freshness-maintaining agent consists of (a) iron-type oxygen absorbent; (b) hygroscopic or deliquescent alkaline earth metal salt; (c) bicarbonate; and (d) the solid substance, of which aq. soln. is acidic.

The component (a) is (1) iron powder and its partial oxidised prod., (2) ferrous cpd., (3) complex oxide of Fe such as triiron tetraoxide and (5) the compsn. obtd. by combining metal halide and/or water and/or water insoluble bulking agent in Fe powder (1) or Fe cpd. (2), (3) or (4).

When the mixt. in tablet form or powder form is packaged with gas-permeable water-repelling material and packaged with food, the component (a) absorbs oxygen in the package and the component (b), (c) and (d) react with water forming CO₂ gas. Thus not only oxidn. and the discolouration of the food can be prevented, but also the multiplication of both of aerobic microbes and anaerobic microbes can be suppressed. Further CO₂ gas shows the freshness-maintaining effect on vegetables and fruits. (9pp)

QPPP ★ D13 74919 D/41 ★ J5 6109-545
Sterilised conc. liq. egg white prodn. - by adding sugar, condensed phosphate and powdered bile to egg white and heat-sterilising

Q.P. CORP 05.02.80-JP-012856
(31.08.81) A23b-05

05.02.80 as 012856 (5WB)

Egg white is pre-concd. to 1.5-3 times solids concn. of original egg white. The sugar, condensed phosphate and powder bile are used in amts. 0.5-2 pts., 0.001-0.005 pts. and 0.0005-0.005 pt. respectively per 3 pt. liq. concd. egg white. Heat-sterilisation is at 60-70 deg.C for 5-30 mins. The egg white can thus be heat-sterilised at high temp. without deteriorating its foaming property. The obtd. egg white can be used in confectionery. (5pp)

MOMI ★ D13 74920 D/41 ★ J5 6109-548
Bran-pickling compsn. prepn. - by mixing rice bran and protein treating mixt., with protease, inoculating with lactic acid bacteria, fermenting and concentrating

MORINAGA & CO LTD 04.02.80-JP-012197
(31.08.81) A23b-07/10 A231-01/21

04.02.80 as 012197 (5AT)

The compsn. for bran-pickling use can be prepd. by (a) mixing rice bran and protein food (e.g. soy bean protein, soy bean lees, casein, gelatin, skimm milk, etc.), (b) treating the mixt. with protease, (c) inoculating with lactic acid bacteria yeast and gram-negative bacteria in the protein-decomposed bran, (d) fermenting it at pH 4.4-5.8 for more than two days pref. for 2-6 days, (e) concentrating or drying thus obtd. fermented bran by heating, reducing pressure, freezing, etc. and adding salt, organic acid, flavouring, etc. so the aq. suspension of objective compsn. has salt concn. 4-8% and organic acid concn. 0.2-1.4%. If necessary concn. or dried fermented bran and the additives are packaged separately in two packages and are suspended in water on use. Bran-pickled vegetables can be prepd. either by suspending compsn. in water and immersing vegetables in the aq. suspension for 4-48 hrs. or by mixing compsn. in the bran bed for bran-pickling use prepd. as usual and pickling vegetables in the mixt.

The desired flavour of bran bed can be formed in a short time. The salt concn. and organic acid concn. in aq. pickling suspension are decided on the consideration of the osmotic pressure relations between the aq. pickling suspension and vegetables. When the aq. suspension is used repeatedly, it is necessary to add the pickling aids to keep the pickling suspension salt concn. at 4-8% and organic acid concn. at 0.2-1.4%. (11pp)

WAKD ★ D13 74921 D/41 ★ J5 6109-549
Bean curd milk protein mfr. - by adding oil and fat to soln. of alkali caseinate and milk serum protein, emulsifying, heat treating and coagulating

WAKODO KK 01.02.80-JP-011114
(31.08.81) A23c-09

01.02.80 as 011114 (5WB)

The bean curd is prepd. by (a) adding oil and fat to aq. protein soln. consisting of alkali caseinate and soluble milk serum protein, (b) emulsifying the mixt., (c) heat-treating it and (d) coagulating it with coagulant.

Pref. starting aq. protein soln. is prepd. that it contains 5-15 w/w% protein composed of alkali caseinate and soluble milk

to below 50 deg.C and fluid oil and fat (e.g. butter oil, sesan etc.) is added in amt. 5-15 w/w%. The mixt. is emulsified u homogeniser and the emulsion is heat-treated, e.g. at 98-100 for a min., at 90 deg.C for 5-10 mins., at 80 deg.C for 15-30 min at 70 deg.C for 30-60 mins. The emulsion is at once cooled to deg.C and coagulant (e.g. sec. calcium phosphate, tert. ca phosphate, calcium carbonate and glucono-delta-lactone, e added. The mixt. is heated to 90-98 deg.C and after charging mould, allowed to cool.

Bean curd obtd. has fine texture and shows good shape-ho property. Its cross-section is white and glossy. It is not defo nor denatured in hot water or by freezing it. It is not nutritive, but also has excellent taste and flavour. (3pp)

KIMI- ★ D13 74922 D/41 ★ J5 610
Animal feedstuff prepn. - by adding alkali arginate to components and then adding organic acid of stronger acidity acetic acid

KIMITSUKAGAKU KENK 31.01.80-JP-011614
C03 (31.08.81) A23k-01/20

31.01.80 as 011614 (5WB)

Method comprises adding alkali arginate to feed com consisting of at least one of vegetable protein, fish pow activated sludge, minced fish, etc. and then adding organic which is stronger than acetic acid to the mixt. The organic hydrolyses alkali arginate to free acid and forms a good j Alkali arginate can be made into the free acid at pH about 4. organic acid is citric acid, tartaric acid or malic acid. C breeding results are obtd. with the feedstuff. (3pp)

MAZN ★ D13 74923 D/41 ★ J5 6109
Crude Stevia extract refining - by contacting with ether, ester organic chlorine cpd.

MARUZEN KASEI KK 01.02.80-JP-009940
B03 E13 (31.08.81) A231-01/22 C07h-01/08

01.02.80 as 009940 (5HM)

Method comprises contacting the crude Stevia extract obtd extracting the stems and leaves of the plant, Stevia rebaudi Berton with hydrophilic organic solvent, selected from ether, 4-7C ester and 1-4C organic chlorine cpd. to remove solu components.

The organic solvent is pref. diethylether, di-isopropylaceta n-butylacetate, isobutylacetate, MeCl, CH₂Cl₂, CHCl₃, C trichloroethylene and perchloroethylene.

Stevia extract is usually coloured, bitter, astringent and specific odour. It has hitherto been refined by complex process

By treating the crude stevia extract with specific organic solve the bitter component, the astringent component and the soluble pigment (e.g. chlorophyll) in the extract are remove Water soluble impurities are not removed, the method is pr used together with conventional refining methods, by wha hydrophilic substances are removed. (4pp)

NIPK ★ D13 74924 D/41 ★ J5 6109-
Preventing deterioration of processed foods - by adding etha and/or glycine and glucosyl sucrose and/or beta-cyclodextr contg. sugar

NIPPON KAYAKU KK 04.02.80-JP-011556
(31.08.81) A231-03/34

04.02.80 as 011556 (5RH)

Method comprises adding (a) ethanol and/or glycine and glucosylsucrose and/or beta-cyclodextrin-contg. sugar processed food.

Though (a) show weak preventing effect on food deteriorati and (b) shows hardly any effect, by using them together th show strong synergistic effect on the deterioration of process foods (e.g. noodles, rice cake, marine pasty foods, process meat foods, etc.).

Coupling sugar (RTM) can be used. As beta-cyclodextrin-cont sugar, sugar compsn. contg. beta-cyclodextrin 10-40 oligosaccharide 80-40% and other sugar (e.g. glucose, maltos etc.) can be used and Celludex (RTM) is pref. used. Usually (a) used in amts. of 0.2-7 wt.% pref. 0.5-3 wt.% on processed food at (b) 0.5-7 wt.% pref. 1-5 wt.% so that sum of (a) and (b) is 1-10 wt. (a) and (b) are combined in food or spread on processed food. It necessary to use (a) and (b) simultaneously and pref. are used a mixt. (3pp)

ORIY ★ D13 75020 D/41 ★ J8 1039-16
Animal feedstuff which reduces blood cholesterol - contains li culture prod. of *Saccharomyces cerevisiae* (J5 9.6.75)

ORIENTAL YEAST KK 19.10.73-JP-116856
B04 C03 (D16) (11.09.81) A23k-01/16

19.10.73 as 116856 (22PW)

Liquid culture product of *Saccharomyces cerevisiae*

edstuff, cholesterol in blood of animals can be reduced.
50068867) (4pp)

JIN ★ D13 75021 D/41 ★ J8 1039-168
Additive for silkworm feedstuff - contains quat. ammonium gp.-
contg. organic cpd. J5 22.9.75)
AJINOMOTO KK(KATA) 05.03.74-JP-024731
C03 (11.09.81) A23k-01/18
05.03.74 as 024731 (22AS)
Additive cpd. of formula
R1R2R3N(+)-R4-CO-X(-) (I) or
R1R2R3N(+)-R4-O-CO-Y(-) (II)
R1-3 are each 1-20C alkyl; R4 is 1-5C alkylene, X is OH, 1-20C
alkoxy or alkylamino; and Y is 3-20C alkyl. Yield of cocoon is
improved. (J50121085) (4pp)

ITN D13 78733 Y/44 = J8 1039-172
Bean milk prodn. from soya with good protein extn. - by
extracting beans with organic solvent and extracting bean milk
from residue using water
MITSUBISHI GAS CHEM IND (MITU) 17.03.76-JP-028969
(11.09.81) *J52114-050 A23l-01/20 + A23j-03
03.76 as 028969 (5DJ)
Method comprises extracting (defatted) soy bean (I) with organic
solvent, extracting bean milk from the residue with deoxidised
water (DO less than 0.15 ppm) at 5-70 deg.C or hot water at 70-100
deg.C of which the amt. is the same or more than the wt. of (I),
and removing organic solvent remaining simultaneously or after
extracting bean milk.
Low odour bean milk can be prepd. from soy bean with a high
extraction rate for protein. Defatted soy bean is extracted as it is
without removing the solvent, and the solvent is removed during
after the extn. The extraction of bean milk is pref. effected
under anaerobic conditions. By adding a chelating agent for
metal ions and/or alkali to the water the extraction rate for
protein can be further increased. Typically, the soy bean is
washed in water, and bean milk and soy bean waste are sepd. by
centrifuge etc. (J52114050) (5pp)

IKK D13 41477 A/23 = J8 1039-173
Non-astringent soy bean milk prepn. - by causing water to be
absorbed in the peripheral part only of soy beans, heat treating
etc.

KIKKOMAN SHOYU KK 14.10.76-JP-122224
(11.09.81) *J53047-566 A23c-11/10 A23l-01/20
10.76 as 122224 (5AS)
Method comprises immersing whole soy bean or de-filmed soy
bean in water to absorb water in the peripheral part only of each
bean, heat treating at 70-150 deg.C for specified time immersing
water again to dissolve out the astringent component, taking it
out and mashing it as usual.
Bean milk which is free of astringency and excellent in
solubility of proteins and has low sugar content can be obtd. Thus
obtd. bean milk can be applied favourably as material for bean
milk, ice cream, flavoured drinks etc. (J53047566) (5pp)

ITU D13 52506 A/29 = J8 1039-174
Soybean milk prodn. - by mashing bean in hot water, heating to
inactivate oxidising enzyme and homogenising
MITSUBISHI CHEM IND KK 25.11.76-JP-141529
(11.09.81) *J53066-466 A23c-11/10 A23l-01/20
11.76 as 141529 (5DH)
Soybean which has not been immersed in water is mashed in hot
water at 70 deg.C to b.pt. and the mashed prod. heated between
b.pt. and 190 deg.C. The obtd. mashed prod. is homogenised
under a pressure of 150-2000 kg/sq.cm.
Bean milk having smooth texture and free from grassy smell
during preservation, is prepd. in high yield. The method does not
include the immersing process for soy bean and the method is
free of the pollution problem caused from waste water. No bean
curd waste is produced.
Pref. mashing is carried out with 6-25 times wt. soy-bean of hot
water to extract proteins. Pref. in the hot water, 0.03-1 w/w% on
soybean of the chelating agent for metallic ions (e.g.
polyphosphoric acid, citric acid etc.) or its alkali metal salt
and/or 0.01-0.075 geq. on soybean 1 kg. of alkali hydroxide is
added to improve NSI. Further 0.01-3 geq. on soybean 1 kg. of
deodorising salt (e.g. NaCl, Na malonate, etc.) may be added to
improve NSI. By the heat-treatment undesirable physiologically
active substance such as the oxidising enzyme for unsatd. fatty
acids and trypsin inhibitor etc., can be inactivated. (J53066466)
(5pp)

MITU D13 52508 A/29 = J8 1039-175
Soybean milk prodn. - by mashing bean in hot water, sepg. bean
curd waste and heating under specific conditions to inactivate
oxidising enzyme
MITSUBISHI CHEM IND KK 27.11.76-JP-142423
(11.09.81) *J53066-468 A23c-11/10 A23l-01/20
27.11.76 as 142423 (5RH)
Soybean which is not immersed in water, is mashed in hot water
at 70 deg.C to b.pt. The bean curd refuse is sepd. from the mashed
prod. and the obtd. bean milk heat-treated under specific
conditions for inactivating oxidising enzyme sufficiently.

In mashing, a chelating agent for metal ions (e.g.
polyphosphoric acid, citric acid etc.) or its salt is added in an amt.
of 0.03-1w/w% on soybean and/or alkali hydroxide 0.01-0.075 geq.
on 1kg. of soybean for increasing the yield of bean milk. Pref. a
salt showing deodorising effect e.g. NaCl is added. After
mashing, the sepn. is practised without cooling the mashed prod.
The bean curd refuse is washed sufficiently with de-oxygenised
water to recover bean milk. The obtd. bean milk is then heat-
treated under the specific condition. Finally the bean milk is
cooled by flash-cooling, and the deodorising and the concn. occur
simultaneously. It is pref. to practice the whole process at more
than 50 deg.C or to practice the whole process under anaerobic
condition for improving the quality of bean milk further.

The extn. of protein is increased, and bean milk does not get
grassy smell during the preservation. Process does not include
the immersing process for soy bean and the pollution problem
caused from the waste water can be avoided. (J53066468) (4pp)

NISW ★ D13 75022 D/41 ★ J8 1039-176
Foodstuff or feedstuff prepn. - involves addn. of heat treated
soybean germ (J5 9.10.78)
NISSHIN OIL MILLS KK 25.02.77-JP-019296
C03 (11.09.81) A23l-01/20
25.02.77 as 019296 (22DH)
Concentrated soybean germ containing 12% or less of fibrous
substances is subjected to heat treatment and then the resultant
is incorporated into foodstuff or feedstuff. Taste and flavour is
improved. (J53115836) (3pp)

YOSH. ★ D13 75023 D/41 ★ J8 1039-177
Coagulation of soybean juice - by addn. of coagulating agent e.g.
magnesium chloride as powder, liq. dispersion etc. (J5 23.8.78)
YOSHIKAWA SHOJI KK 14.01.77-JP-003138
E33 (E12) (11.09.81) A23l-01/20
14.01.77 as 003138 (22RP)
Into soybean juice is added coagulating agent such as
magnesium chloride, calcium chloride, calcium lactate, etc. in a
form of powder, dispersion in a liquid, etc. Properties of soybean
curd (Tohu) are not damaged. (J53096344) (2pp)

SNOW D13 58801 B/32 = J8 1039-622
Powdery bean milk prepn. - by dehusking soybeans, wet heating,
cooling, adding milk component, fermenting with lactic acid
bacteria and yeast, drying and pulverising
SNOW BRAND MILK PRODUCTS 09.12.77-JP-147193
(14.09.81) *J54080-458 A23c-11/10 A23l-01/20
09.12.77 as 147193 (5BZ)
Powdery bean milk is prepd. by (a) dehusking whole soybeans, (b)
wet-heating, (c) cooling, (d) adding milk component, (e)
fermenting with lactic acid bacteria and yeast under semi-solid
state, (f) drying and (g) cryogenically pulverising. Liq. bean milk
is prepd. by adding water, seasoning, alkaline substance, etc. in
the fermented prod. obtd. in (e) and emulsifying the mixt.
Powdery bean milk which is free of bean smell and excellent in
preservative property, dissolving property, taste and flavour and
digestive property, can be inexpensively.
As milk component skimmed milk, powdery milk, whey
powder, casein Na, etc. can be used, in amt. of 2-3 w/w% on
steamed soybean. As lactic acid bacteria *Streptococcus lactis*,
Lactobacillus bulgaricus, *L. acidophilus*, etc. can be used in amt.
of 2-3 w/w% on the material. As yeast *Saccharomyces*
cerevisiae, etc. can be used 0.1-0.5 w/w%. (J54080458) (4pp)

TAKA. D13 04488 C/03 = J8 1039-623
Meat seasoning and preserving agent - by enzymic fermentation
of malted rice and soybean - using vitamin(s), protease, sorbic
acid and water
TAKADA SHOTEN KK 20.05.78-JP-060327
(14.09.81) *J54154-600 A23l-01/20
20.05.78 as 060327 (42KB)
Miso (I), used as seasoning and meat preserving agent is obtd. by
mixing a certain amt. of malted rice and a small amt. of salt into
boiled soybean, adding 1.2-1.5 wt.% of neutral protease, a small
amt. of basic protease, 0.15 wt.% of sorbic acid, trace of vitamin
B2 and a suitable amt. of water and fermenting the mixt. Meat
preserved in (I) can be easily produced at home and meat does

not harden during storage in (I).

Typically 36 kg of soybean was boiled and mixed with 40 kg of malted rice, 4 kg of salt, 960 g of neutral protease, 30 g of basic protease, 120 g of sorbic acid, 4 g of vitamin B2 and 43 kg of water. The mixt. was warmed at 55 deg. C for 7 hrs., and then fermented at room temp. for 15 days. Meat preserved in thus prepared (I) held soft texture and fresh colour during long preservation-period. (J54154600) (2pp)

KENG/ D13 13629 C/08 = J8 1039-628
Enzymic treatment of low grade rice for use in fermentation - includes adding leucine-dissolving proteinase opt. with starch-liquidising enzyme

KENG 26.06.78-JP-076520
(D16) (14.09.81) *J55003-769 A231-01/10 + C12g-03/02
26.06.78 as 076520 (5BZ)

Prepn. of brewed foods such as sake using low grade rice such as broken rice, unripe rice, etc. as the starting material, comprises adding a proteinase having leucine-dissolving activity opt. with starch-liquidising enzyme to the starting rice when immersing it in water.

The enzymic treatment is at more than 10 deg. C and the longer the immersion time the better. Pref. low grade rice is immersed in water for 60 minutes. (J55003769) (7pp)

SANY D13 38993 A/22 = J8 1039-793
Viscosity improving agent used as food additive, paint or dye - comprises the hydrolysed copolymer of acrylamide and starch or cellulose as main component

SANKYO KK 29.09.76-JP-117588
A97 G02 (A11 A14) (16.09.81) *J53042-188 C09k-03 + C08f-251/02
29.09.75 as 117588 (51NS)

The agent comprises as a main component a hydrolysed cpd. of a copolymer of acrylamide and starch or cellulose and is suitable for use as food additive, paint or dye.

In an example, 210 pts. of corn starch was mixed with 700 pts. of water at 70 deg. C for 1 hr. in a flow of N₂. Then, 90 pts. of acrylamide and 50 pts. of a soln. of Ce ammonium nitrate were added to the resulting mixt. at 35 deg. C for 3 hrs. in a flow of N₂ to obtain a copolymer. The copolymer was hydrolysed in an aq. soln. of 30% NaOH at 40 deg. C for 1 hr., to obtain a permeable gel type substance. The substance was dried at 80 deg. C for 8 hrs. to obtain a white powder used as a viscosity increasing agent. (J53042188) (5pp)

HONS D13 08124 Y/05 = J8 1039-851
Stable lactic acid bacteria beverage prepn. - by fermenting domestic animal milk with lactic acid bacteria, emulsifying, lowering non-fat concn., gently heating

YAKULT HONSHA KK 10.06.75-JP-069098
(D16) (16.09.81) *J51144-761 A23c-09/12
10.06.75 as 069098 (11AS)

Prodn. of stable lactic acid bacteria beverage that does not ppte. for a long time. The beverage is produced by cultivating lactic acid bacteria in the milk of domestic animal, and treating the obtd. broth with heat for a short time.

The coagulated milk (pH 3.45-3.65) is prepd. by fermenting the milk of domestic animal with lactic acid bacteria. The coagulated milk is emulsified uniformly, and the concn. of non-fat milk component (solid component) is adjusted to less than 5%. The adjusted milk is heated for 3 seconds-10 minutes at such temp. (50-80 deg. C) that the lactic acid bacteria does not die out. Thus lactic acid bacteria beverage having soluble milk protein: over 85% is obtd. The lactic acid bacteria beverage can be preserved stably for 3 weeks without death of the lactic acid bacteria. (J51144761) (4pp)

HONS D13 15107 A/08 = J8 1039-852
Fermented milk prods. contg. Biphido bacterium - prepd. by culturing bacterium in milk-contg. medium and processing the cultured prod., with addn. of carrot juice after fermentation

YAKULT HONSHA KK 30.06.76-JP-076464
(D16) (16.09.81) *J53003-562 A23c-09/12
30.06.76 as 076464 (5DH)

Prepn. of fermented milk prods. comprises culturing Biphidobacterium in the culture medium contg. milk as the major component and processing the cultured prod. Carrot juice is added at an optional stage after fermentation.

Detriment to the taste and flavour of the prods. due to formation of acetic acid is avoided, and tasty prod. contg. living Biphidobacterium is obtd. Prod. is partic. suitable for infants. (J53003562) (4pp)

WARN D13 49318 W/29 = J8 1039-
Chewing gum piece contg. liquid fill in an enclosed cavity comprising an aqueous soln. of dissolved solids and glycerol retard 0rnlrlna2ns in viscosity

WARNER-LAMBERT CO 14.01.74-US-432921
(16.09.81) *US3894-154 A23g-03/30
14.01.75 as 006028 (DH)

A chewing gum piece comprises an enclosed cavity formed in gum piece, and a liquid fill in the cavity. The liquid fill includes an aqueous soln. contg. a dissolved solids portion and glycerol to increase the viscosity of the fill.

The increase in liquidity perceptible shelf life of the gum results from the humectant property of the glycerol retard. increases in the viscosity of the liquid fill by dissolution of gum components e.g. sugars, or by liquid fill water being absorbed by the gum. The invention may also be applied to sugarless chewing gum. (J50111258) (2pp)

KURS D13 39651 B/21 = J8 1039-
Surface treatment of milk protein fibre - includes adding alkali polyphosphate and melted cheese to impart taste of cheese

KURARAY KK 22.09.77-JP-114996
(16.09.81) *J54046-853 A23j-03/02
22.09.77 as 114996 (5HM)

The method comprises (1) treating the milk protein fibre having fibrils or multi-filament structure with aq. alkali soln. to attain the equilibrium at pH 4.5-6.5, (2) adding 0.001-0.006 pt.wt. polyphosphate mixt. selected from polyphosphate of condensn. degree below 3 and polyphosphate of condensn. degree above 3 respectively with large amount of water to 1 pt.wt. of the fibre (standard moisture content 66%), (3) impregnating it in the fibre and (4) kneading it at 60-80 deg. C with melted cheese.

The following relation must be satisfied. P is at least 0.02X/(X + 1.88)/(X + 1). In the equation, X is the combining ratio of cheese (standard moisture content 35%) to fibre, and has the value 0.05-1; Y is the moisture content of the prod., and is given by Y is at least (0.35X + 0.66)/(X + 1); and P is the combining ratio of polyphosphate mixt. to the fibre.

The novel processed protein food has the taste and flavour of cheese and meat-like texture. (J54046853) (6pp)

MOMI D13 08676 A/05 = NL -167-8
Automatically controlling caramel degree of liquid - by measuring light reflected from liquid surface by two different wavelength radiations (NL 23.1.78)

MORINAGA & CO LTD 19.07.76-JP-085790
+ P28 (16.09.81) *DE2732-609 A23g-03/02
08.07.77 as 007647 (160HM)

The method caramellises liq. for sweets, boiled liq. from a boiler being delivered into a vessel where it is stirred and caramellised before passing to a cooling vessel.

A detector is provided for the degree of caramellisation near the surface of the liq. in the cooling vessel, light being reflected from the surface and divided into its continuous spectrum, from which two bands spaced apart are selected. The bands are converted into electrical signals, from which a caramellisation value is derived. Its value is compared with set upper and lower ones and a control signal is generated, automatically regulating the speed of the stirring mechanism. (8pp)

BGDR D13 67477 R/37 = NL -167-84
Apparatus for making cornet ice creams

BIG DRUM INC 23.09.69-US-860377
(16.09.81) *BE-746-791 + A23g-03/20
09.02.70 as 001792 (160TM)

The machine produces frozen foods comprising a cone or cup from whose open end a filling protrudes, this being cooled to below freezing point, and a covering over the protruding portion. It comprises a filling station, a freezing tunnel with an endless conveyor, and a covering station for the filled cones etc.

The conveyor transports the cones upright through the tunnel and protrudes at one end. It conveys the cones through the top part of the tunnel and back again through the bottom, the top part delivering the filled cones into the tunnel and the bottom one the frozen ones out again. The filling station is outside the tunnel and above the belt, delivering the liquid material, while below the belt is a vessel filled with liquid covering material and which can travel with it. This is followed by a further vessel with a spring bottom containing edible particles for adherence to the covering (10pp)

UNIL D13 42065 V/23 = NL -167-84
Cheese flavour compsn - contg 2-phenyl-ethanol and methyl-1-butanol, to impart Italic cheese flavour to non-ripened cheese

UNILEVER NV 22.11.72-LU-066516
(16.09.81) *DE2258-062 A23g-03/02

low-flavour cheese is treated with an Italian cheese flavouring ext. contg. 2-phenyl-ethanol and at least 1 methyl-1-butanol, to d 0.3-10 (1-5) mg/kg. of 2-phenylethanol and 3-40 (6-12) mg/kg. of methyl-1-butanol to the cheese. (Italian cheese is a rapid-opening, soft cheese, with limited storage time, from cows' milk).

An Italian cheese flavouring mixt. contains 0.3-10 pts. wt. of 2-phenylethanol, and 3-40 pts. wt. of methyl-1-butanol, and opt. also 1-600 pts. wt. of a 3-6C alkanolic acid (pref. 5-300 pts. wt. of butyric acid, 1-100 pts. of isobutyric acid, and 1-100 pts. of 3-methylbutanoic acid), 1-10 pts. wt. of isobutanol and/or a 4-6C straight-chain 1-kanol, 0.2-5 pts. wt. of 5-9C 2-alkanols, 0.5-10 pts. wt. of 1-alkylamines with 1 or 2C in the alkyl gp., and/or 0.1-10 pts. wt. of pyrrolidine and/or piperidine; the ratio by wt. of 2-phenylethanol:methyl-1-butanol is pref. 1:3-4. The cheese is esp. young Cheddar. (5pp)

ENI ★ D13 75104 D/41 ★SU-796-237
High grade calcium phosphate prodn. - by treatment of phosphate rock decomposition product with nitric acid prod. with ammonia and recirculated soln.

LENINGRAD LENSOVET TECH 03.12.76-SU-424908
C03 (15.01.81) C05b-13/06
12.76 as 424908 (938WD)

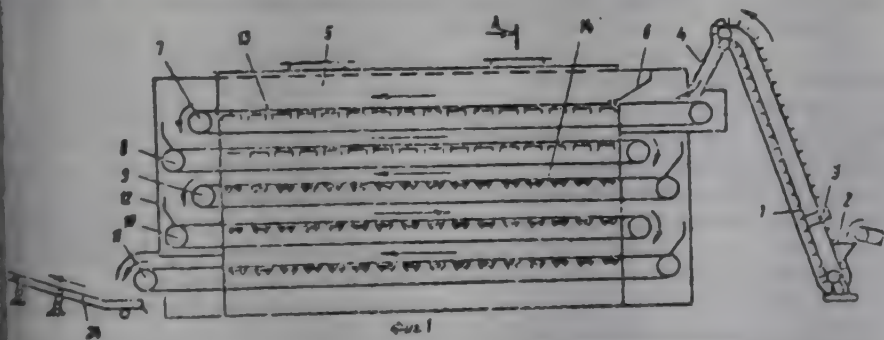
Calcium phosphate, used as animal feed supplement, is prepd. by decomposing phosphate rock with nitric acid, cooling the acid tract, sepg. calcium nitrate from mother liquor, and treating the latter with sodium salts followed by the sepn. of sodium silicofluoride, neutralisation of acid soln. with ammonia sepn. of impurities and adjusting it to pH 3.5-5.0.

The filtration of calcium phosphate is improved and the yield of the final prod. is increased if soln. is treated with ammonia for 20-30 min. in the presence of 15-100 wt. % of recirculated soln. followed by the addn. of calcium nitrate to give pulp contg. 10:20:5 ratio of (0.75-0.55):1. Bul.2/15.1.81. (3pp)

BIL = ★ D13 75242 D/41 ★SU-797-640
Green tea leaf curing plant - has mechanism for periodically blowing heat carrier through and softening tea leaf on first two transporters

TBILISI VENDING MAC 08.04.76-SU-345141
(23.01.81) A23f-03
04.76 as 345141 (18MI)

The plant comprises a chamber (5) with mesh transporters (7-11) above the other, mechanism for feeding and dosing the tealeaf onto the first transporter and mechanism to supply and move heat-carrier. For better curing, it has a mechanism for periodically blowing heat-carrier through and softening the tealeaf on the first two transporters. This consists of a set of guide elements of gantry shape, set with clearance relative to each other under the working branches of the transporters, forming channels (13) of rectangular section for passage of heat-carrier onto the tealeaf layer, and a layer levelling attachment at the entry sector of the chamber. Bul. 3/23.1.81. (3pp Dwg.No.1)



POL = ★ D13 75243 D/41 ★SU-797-641
Black tea producing process - separating out extra coarse fraction in first sort, processing and adding to coarse fraction of last sort

GEOR POLY (TEAI =) 22.06.78-SU-634217
(23.01.81) A23f-03
06.78 as 634217 (18MI)

The process comprises curing the tealeaf, twisting, first sorting of fine and coarse fractions, twisting and fermentation of the fine fraction, multi-stage twisting and sorting of the coarse fraction, and cutting, twisting and fermentation of the coarse fraction produced after the last sorting.

For a better product and higher productivity, during the first sorting, an extra coarse fraction is separated out, twisted, sorted, fermented and put into the cut coarse fraction of the last sorting before twisting. The multi-stage twisting of the coarse fraction is done with pressure increasing in each stage by at least 10%. Bul. 3/23.1.81. (2pp)

MOSN ★ D13 75244 D/41 ★SU-797-642
Prophylactic herb tea - contains tea, peppermint, marjoram, coltsfoot, hawthorn, St. John's wort, camomile, maize, eucalyptus and valerian

MOSCOW NATECONOMY INST 12.10.78-SU-674186
(23.01.81) A23f-03

12.10.78 as 674186 (314MI)

Herbal tea having good medicinal and prophylactic properties comprises (in wt.%): peppermint 5-6, wild marjoram 5-6, coltsfoot 5-6, hawthorn 5-6; St. John's wort 5-6, German camomile 1-2, maize niblets 5-6, eucalyptus 1-2, herbal valerian 1-2 and tea the balance.

To make a herbal tea drink, use 0.8-1 g. of the above tea per pot, stand for 10-15 mins. and serve with milk and sugar to taste. Bul. 3/23.1.81. (2pp)

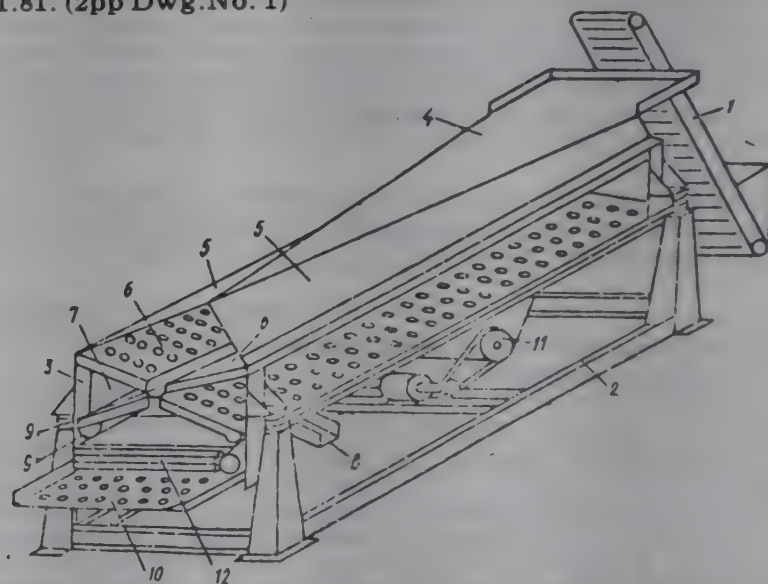
TEAI = ★ D13 75245 D/41 ★SU-797-644
Leaf stalk and tea leaf separating mechanism - has distributor in form of horizontal plate with sides bent at 115-120 degrees to form platform

TEA IND RES INST 27.11.78-SU-714382
(23.01.81) A23f-03

27.11.78 as 714382 (18MI)

The mechanism comprises a sprung frame (3), sounding boards (6,7) with sieves (10) fixed on it, tea-breaker and tea distributor. For more even distribution of the tea on the sounding boards and thus raising productivity, the distributor is in the form of a horizontal plate (4) with sides (5) bent at an angle of 115-120 deg., forming a platform of triangular shape with apex towards the direction of motion of the product.

This gives a streamlined shape so that there is no delay in the movement of the tea anywhere along the platform and it is distributed everywhere without dead zones. Therefore there are no interruptions to the operation and productivity is raised. Bul. 3/23.1.81. (2pp Dwg.No. 1)

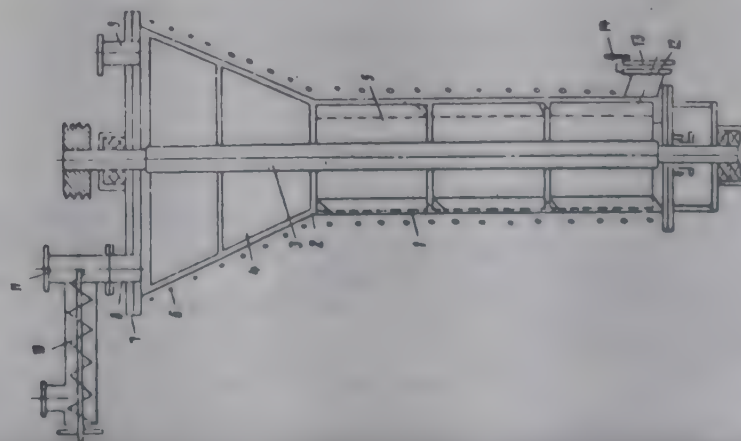


CONF = ★ D13 75246 D/41 ★SU-797-645
Confectionery mass continuous prodn. mechanism - has inclined blades in conical chamber, and blades with flaps in cylindrical one

CONFECTIONERY IND 06.10.76-SU-410650
(23.01.81) A23g-03/04

06.10.76 as 410650 (18MI)

The mechanism is used for molten substances e.g. molten sugar, and solutions. It comprises vertically-mounted conical and cylindrical heated working chambers (1,2) in sequence, contg. a drive shaft (3) with blades (4,5) fixed on it, loading inlet (8) in cap (7) of the conical chamber and unloading outlet (12) at the bottom



of the cylindrical chamber, with a lock. To intensify the mixing rubber, heating and melting processes and to prevent the substance foaming, each blade in the conical chamber is inclined 5-10 deg. from the axis of the shaft.

Each blade in the cylindrical chamber has a flap pivoted to it with a stop to maintain an adjustable clearance between the working edge of the flap and the inner surface of the chamber as the stop acts with the blade in operation. The radius of curvature of the working edge of the blade is equal to that of the inner surface of the working chamber. Bul. 3/23.1.81 (6pp Dwg.No.1)

RORE = ★ D13 75247 D/41 ★ SU-797-646
High food value ice cream - contains fruit puree, buttermilk, fat, cream, evaporated milk, dried skimmed milk, animal oil, sugar, stabiliser and vanillin

ROSTREFRIG 1 ROSMY 15.03.79-SU-737337
(23.01.81) A23g-09/02
15.03.79 as 737337 (314WD)

Ice cream having enhanced nutritional value contains (in wt.%): fruit puree 12-13, buttermilk 20-25, confectioner's fat 5-6, cream 30-32, evaporated milk, 5-6, dried skimmed milk 3-3.5, animal oil 3-4.5, sugar 15-16, stabiliser 1.48-1.5, vanillin 0.01-0.015 and water the balance. The ice cream prod. is designated 'Donskoe'. (3pp)

UYKI = ★ D13 75248 D/41 ★ SU-797-647
Confectionery fruit jelly prodn. - using agaroid-sugar-molasses syrup with salt addn. to reduce agaroid consumption and improve fruit acid stability

KISH UNIV 19.06.78-SU-631594
(23.01.81) A231-01/06
19.06.78 as 631594 (70VE)

Fruit jelly is prepd. by effecting swelling of an agaroid in water, preparing an agaroid-sugar-molasses syrup, adding salt, introducing additives, forming the jelly and letting it set. The consumption of the agaroid is reduced by decreasing its solubility in water. This is effected by adding to water 1-1.5% of NaCl. The ratio of the agaroid to water is 1:(20-25). The swelling time is 1-1.5 hr. with constant stirring. During the prepn. of the agaroid-sugar-molasses syrup salt is added in an amt. corresp. to 0.2-0.25% w.r.t. the jelly.

By this method, the agaroid consumption is reduced by 7-10%. The resistance of the jelly to acids is enhanced. The taste and aroma of the jelly is improved. Bul. 3/23.1.81. (2pp)

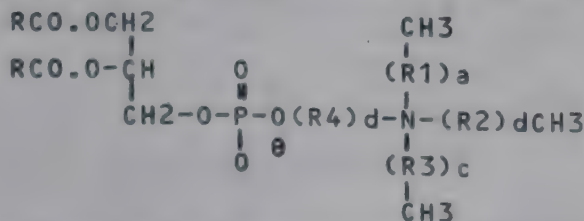
SEAR/ D13 31504 A/17 = US RE30-748
Phosphatide onium cpds. - useful as lecithin substitutes and for atherosclerosis treatment

SEARS BD 12.10.76-US-731132 (13.11.79-US-093631)
B05 E11 (22.09.81) *NL7711-226 A23j-07 C07f-09/02
13.11.79 as 093631 Reissue of 4086257 (+ 12.10.76-US-731132) (924MR)

Novel synthetic phosphatidyl quat. ammonium cpds. are of formula (I). In (I) R is 14-20C hydrocarbyl; a, b and c are integers of 0-3, and a, b and c in total are equal to at least one; d is integer of 1-5, except that in combination a, b and c cannot be zero and d cannot be 2; and R1-4 are each methylene radical.

Pref. R is an ethylenically unsatd. hydrocarbyl. Specific (I) is dioleoyl phosphatidyl -(methylethylene-N-triethyl) ammonium. The cpds. have a hydrophobic/hydrophilic balance different from natural phosphatidyl choline. This is brought about by changes in the quat. ammonium polar gp. to provide difficult surfactant properties.

The cpds. are useful substitutes for lecithin for solubilising non-aq. soluble cpds. They may be useful in the regression of atherosclerotic lesions and as antiatherosclerotic agents in blood etc., and as stabilisers and emulsifiers for food prods. (5pp)



DGON/ ★ D13 75443 D/41 ★ US 4290-350
Pitting olives and stuffing with anchovy paste - and replacing olive end cap by nozzle movable radially

DEL SER GONZALEZ C 08.11.78-ES-474942
(22.09.81) A23n-04/08
28.12.79 as 108218 (295JB)

An olive pitting machine comprises a turntable which carries olive-receiving pockets. An olive is clamped in a pocket and a tube removing the flesh from the end of the olive. A plunger then ejects the pit which is received in a holder and subsequently

discarded. A nozzle is associated with each olive and receives a metered quantity of anchovy paste in a chamber which is aligned with the olive.

Finally the end cap is advanced through this chamber to transfer the paste into the olive so that the end cap resumes its original position on the olive. The operation of the apparatus is controlled by cams which drive the plunger during rotation of the olive-receiving turntable. (20pp)

TANA D13 22343 C/13 = US 4290-350
Stable intravenous nutrition fatty emulsions - with pH regulated with an organic amine and a buffer soln.

TANABE SEIYAKU KK 08.09.78-JP-111089
(22.09.81) *DE2936-252 + B01j-13

30.08.79 as 071041 (931TM)

A fatty emulsion comprises an oil-in-water type fatty emulsion regulated to pH 6.0-8.0 using a regulator comprising a mixture of one or more organic amine and 1 or more buffer soln.

The amine is lysine, arginine, ornithine, histidine, trihydroxymethylaminomethane and/or triethanolamine. The buffer is K dihydrogen phosphate-dipotassium hydrophosphate, K dihydrogen phosphatedisodium hydrophosphate, K dihydrogen phosphate-trisodium phosphate, dihydrogenphosphate-disodium hydrogen phosphate, citric acid disodium hydrogen phosphate and/or tris-HCl.

The emulsion can be stably kept for a long period with lowering the pH value and aggregation of fatty particles, and is esp. used as an intravenous nutrient. (4pp)

DYNL ★ D13 75573 D/41 ★ US 4290-350
4'-Alkoxy-3'-hydroxy-7-substd.-flavanone derivs. - useful in the prepn. of dihydro-chalcone derivs. for sweetening foods etc.

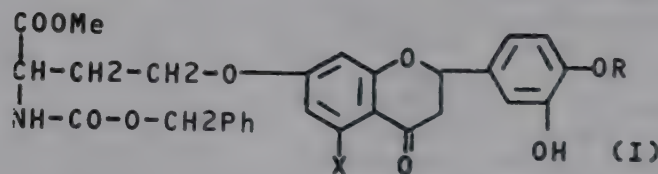
DYNAPOL 12.12.79-US-102699 (09.03.79-US-019054)

B05 E14 (22.09.81) C07d-311/32

12.12.79 as 102699 C.i.p 4226804 (1248AS)

4'-Alkoxy-3'-hydroxy- 7-substd.-flavanone derivs. of formula (I) are new. In the formula X is H or OH; and R is 1-4C alkyl.

Cpds. (I) are intermediates in the prepn. of corresp. (3-aminocarboxy)propoxy dihydrochalcones by catalytic hydrogenation and acid treatment. The latter cpds. are sweeteners for use in foods, beverages, medicaments, etc. and are described in US4226804 (Der. 76871C/43). (9pp)



BADI D13 69891 C/40 = US 4290-350
Fruit aroma furaneol 2,5-di:methyl-4-hydroxy-2,3 di:hydro-furan-3-one - produced from 3-hexene-2,5-diol by epoxidation, ring opening and cyclisation, dehydrogenation and oxidn.

BASF AG 15.03.79-DE-910131

E13 (22.09.81) *DE2910-131 C07d-303/14 C07d-307/32
05.03.80 as 127467 (931TM)

3,4-Epoxy-hexane-2,5-diol is prepd. by epoxidising hex-3-ene-2,5-diol in the liq. phase with H₂O₂. The prod. is converted at 40-50 deg. C to 2,5-di-methyl 3,4-dihydroxy- tetrahydro-furan using catalytic amt. of acid, and then dehydrogenated using O₂ over Ag or Cu catalyst to 2,5-di- methyl-4-hydroxy tetrahydrofuran-3-one. This cpd. is further oxidised to 2,3-dimethyl-4-hydroxy 2 dihydrofuran-3-one using Bi₂O₃ in conc. acetic acid.

The final prod. is esp. used as a scent having the natural fruit aroma of pineapples or strawberries. (4pp)

DUBO/ ★ D13 75579 D/41 ★ US 4290-350
Sulphamation of primary organic amine - by forming catechol sulphate addn. prod. and then hydrolysing with strong base

DUBOIS GE 14.04.80-US-140063

B05 E19 (22.09.81) C07c-143/86

14.04.80 as 140063 (914NS)

Sulphamation of a prim. organic amine (I) comprises contacting (I) in liq. phase with catechol sulphate at low moderate temp. for 1-72 hrs., thereby forming an O-hydroxyphenylsulphamic acid ester (II), and (ii) hydrolysing (II) by contacting it with a strong base at 50-200 deg.C for 1 min - hrs., thereby forming the sulphamic acid salt corresp. to (I) and strong base.

Primary organic amines can be selectively sulphamated, even when other labile functionalities are present. E.g. 2,3,4-trihydroxy-4'-methoxy-4- aminoethoxy dihydrochalcone can be converted to N-(2,3',6-trihydroxy-4'-methoxy -dihydrochalcone-ethoxy)-O- (2-hydroxyphenyl)sulphamate (which is a

AD ★ D13 75613 D/41 ★ US 4291-063
 Improving the texture of spray-dried yeasts - by treatment with hydrous ammonia to cause exothermic absorption
STANDARD OIL CO (IND) 02.09.80-US-183206 (22.08.79-US-068592)
(D16) (22.09.81) A23j-03 A23l-01/34
 09.80 as 183206 (478HM)
 The texture of spray-dried yeast (I) is improved by exposing it to hydrous NH₃ at 0-100 deg.C/NH₃ pressure 15-45% of the vapour pressure of liq. NH₃ at the temp. for 15-120 min. Prefd. (I) are spray-dried *Candida utilis*, *Saccharomyces cerevisiae*, *S. kluyverbergensis*, and *Kleyveromyces fragilis*. Treatment is pref. 0-40 deg. esp. 20-40 deg. or at room temp. (for low residual bitterness rather than high nucleic acid removal).
 Simple treatment not only improves the flavour of (I) (and other proteinaceous materials such as soy flour) but also improves the texture and texturisation props. of (I) when used e.g. in meat patties. In addn., treatment increases the H₂O-solubility of retained nucleic acids. (3pp)

CHR- D13 83190 C/47 = US 4291-064
 Opt. for producing large cheese blocks - comprising container with central drainage screen remov. ble prior to final pressing
SCHREIBER L D CHEES 16.04.79-US-030119
P13 (22.09.81) *GB2046-571 A01j-25/11
 04.79 as 030119 (1376TM)
 Cheese blocks are mfd. from curd particles by locating a drain screen formed of two parallel narrowly spaced sidewalls in a container over a drain plate enclosing the bottom of the container, filling the container with curd until it supports the screen and removing temporary supports, pressurising the curd from the top to remove whey, inverting the container, removing the drain plate and screen, and pressuring curd from the other end to remove remaining voids. (9pp)

PT. D13 46653 C/27 = US 4291-066
 Ambient stable, starch-contg. soup, gravy, etc. concentrate - mtg. osmotic pressure increasing agent and water activity depressing agent
LIPTON T J INC (UNIL) 07.12.78-GB-047554
(22.09.81) *EP--12-465 A23l-01/40
 12.79 as 100884 (974TM)

Ambient stable concentrates form at 65-100C, on dilution with water or aq. liq., into a lump-free thick soup, sauce gravy or dessert. They are produced by (i) producing a concentrate contg. water, starch, an osmotic-pressure increasing agent (I) and a water-activity depressing agent (II); (ii) filling into containers; (iii) sealing the containers and (iv) pasteurising at 60-100C.
 (I) is sufficient to reduce the rate of swelling of the starch and to prevent gelatinisation during (iv). (II) reduces the water activity to not more than 0.92. Concentrates are e.g. mushroom soup, tomato soup, bearnaise sauce or custard sauce concentrates. (4pp)

RETR- ★ D13 75727 D/41 ★ WP 8102-792
 Detecting lactam type antibiotics in milk - by binding in competition with enzyme labelled antibiotic to purified immobilised antibody

RESTRIANGLE INST 20.03.80-US-131914
B05 C03 S03 (B04) (01.10.81) G01n-33/54
 20.03.81 as U00354 (1251HM) (E) US4190496 US3791932 2.Jnl.Ref N(AU DK FL JP NO) E(AT CH DE FR GB LU NL SE)
 Antibiotics (I) are detected in milk by first contacting the sample with a solid matrix supporting purified immobilised antibody (A6) specific for (I) and with an enzyme-labelled antibiotic (I'). The matrix is then removed, rinsed with water, then contacted with a substrate (S) which gives a colour change in presence of (I'). This change is a measure of the amt. of (I') bonded and is compared with the colour change in a standard to determine the concn. of (I) in the sample.

The matrix is pref. the inside of a polystyrene or glass tube, beads in a column or a rod, and (S) is esp. a mixt. of m-phenylenediamine and hydrogen peroxide. Also new is a method for preparing purified (A6).

The method is used to detect lactam-type (I), esp. benzyl penicillin. It is relatively inexpensive, measures concns. down to 0.01 units per ml, does not require skilled personnel and by using a pure (A6) a more equal competition between free and conjugated (I) is obtd., so assay times are reduced (to about 10 min). (32pp)

See Also

D16 EPG 010243 D16 J8-1039191 D16 US 4290773
 D16 US 4291026 D23 IT 1051987

D14: FOODSTUFF MACHINERY

EIK- ★ D14 73742 D/41 ★ BE -888-930
 Machine to wash and dry vegetables in rotary basket - which is elevated above tank water level for spin drying stage
MEIKO MASCH APP MEI 22.05.80-DE-019601
X27 P28 (16.09.81) A23n A47j
 2.05.81 as 888930 (448BZ)

Machine for washing vegetables, salads, etc. and then spin-drying them to remove excess water. The machine is of the type which has a vertical cylindrical basket in which the vegetables are washed as the basket rotates on its vertical axis. Washing completed, the rotation continues to spin dry the vegetables. The complete process takes place inside an open topped tank fitted with a top cover.

The machine is now equipped with a lifting gear which can lift the basket to an upper position, just under the cover, for the drying stage and lower the basket to a submerged position for the washing stage. Pref. the basket sits on a support disc with a central, vertical sleeve into which a spindle of the lifting gear is inserted. The spindle is pref. a coaxial extension of the piston rod of an hydraulic cylinder. The sleeve is rotatable about the spindle, pref. on a water lubricated bearing. The underside of the disc pref. has radial blades on which driving jets of water impinge to rotate disc and basket.

Used for washing and drying vegetables and salads, etc., partic. for hotels, canteens etc. Great time saving as basket is raised above water level rather than having to wait for water to drain from tank before drying. The machine is inexpensive compact and simple to operate and maintain. (19pp)

CAVA/ ★ D14 73754 D/41 ★ BE -888-969
 Domestic ice cream making machine - with power mixing bowl chilled by self contained refrigeration system
CAVALLIA 19.01.81-IT-019198 (30.05.80-IT-022480)
X27 (16.09.81) A23g
 3.05.81 as 888969 (448NS)
 The machine is of the type which has a vertical cylindrical mixing bowl and a refrigeration system to chill the exterior of the

wall of the bowl. The mixing bowl contains an agitator which is rotated about the vertical, central axis of the bowl. The agitator produces a circulation of ingredients within the bowl such that the mixture is:- (a) scraped downwards around the circumferential wall, (b) scraped inwards across the base of the bowl towards the central axis, (c) forced axially upwards towards the surface (d) directed outwards towards the circumferential wall.

High efficiency, scrapedscraped surface heat exchange is obtd. by virtue of spatula action mixing blades. (34pp)

TOXO ★ D14 74485 D/41 ★ J5 6106-753
 Extruded tube package for retort sterilisation - comprising flexible, seamless cylindrical body with outer and inner polyolefin and intermediate oxygen-barrier layers hot bonded to bottom

TOYO SEIKAN KAISHA 21.01.80-JP-004531
A92 Q31 Q32 (25.08.81) B65b-09/24 B65d-35/10

21.01.80 as 004531 (117HM)
 Extruded tube package for retort sterilisation consists of flexible seamless cylindrical torso, composed of an intermediate layer made of an oxygen-barrier thermoplastic resin, e.g., an ethylene-vinyl alcohol copolymer contg. 40-85 mol.% vinyl alcohol units, having an oxygen permeation coeff. of 5.5 x 10 power minus 12 cc.cm/sq. cm.sec.cmHg (at 37 deg. C and 0% RH), and outer and inner layers made of a heat-resistant olefinic polymer, e.g., high density polyethylene, crystalline polypropylene or propylene-ethylene copolymers, each layer being bonded to the other layer with the aid of an adhesive, e.g., a carbonyl gp. contg. thermoplastic resin, together with a bottom hot-bonded with the cut end portion of the torso. The mfg. method for extruded tube package consists of a process in which the (extruded) torso is cut, the contents are filled in the cut torso, the cut end portions of the torso filled with the contents are hot-bonded with each other, and the extruded tube package obtd. is subjected to retort sterilisation treatment.

This method for extruded tube package effectively and simply

performs extrusion, packing and retort sterilising processes on continuous basis, and is suitable for the mfr., packaging and storage of various foods, etc. (8pp)

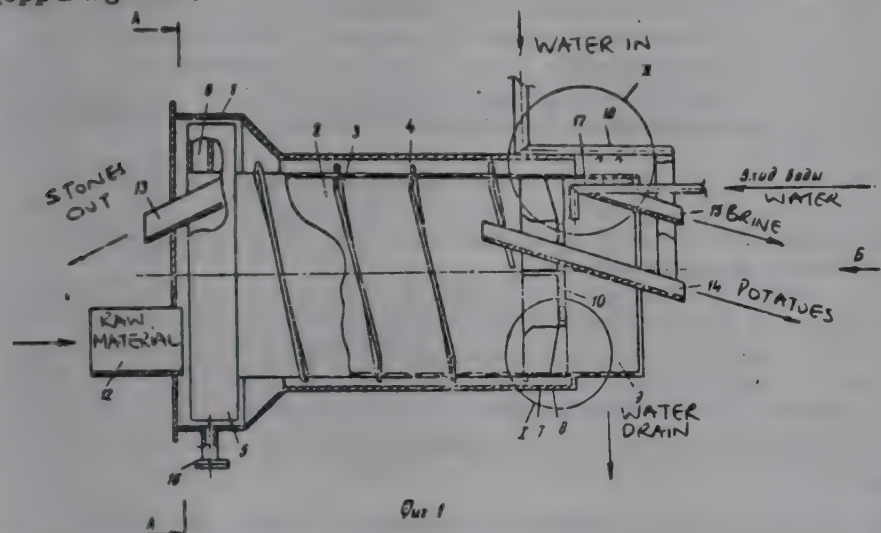
FERM = ★ D14 75250 D/41 ★SU-797-649
Impurity removing mechanism for potatoes - has grille round inner perimeter of drum between mesh chamber and unloading wheel

FERMENTATION PRODS 20.03.79-SU-741338

(23.01.81) A23n-12

20.03.79 as 741338 (18MI)

The mechanism comprises a body (1) with loading and removal trays (12-15) for raw material and impurities, perforated working drum (2) with screw conveyors (3,4) and unloading wheel (7) for the potatoes, trap for heavy impurities and mesh chamber (9) with jets (18). For compactness and fuller removal of light impurities, it has a grille (10) fixed round the inner perimeter of the working drum to hold the potatoes, set between the mesh chamber and the unloading wheel, in the form of radial plates, set at an angle of 30-45 deg. to the drum. There is a scraper (17) for removal of light impurities from the mesh chamber, fixed on the removal tray, and also auxiliary jets are fitted. Bul. 3/23.1.81 (5pp Dwg.No.1)



POGO/ ★ D14 75308 D/41 ★SU-797-758
Continuous hydrolyser for vegetable stock - has self-cleaning filters for product removal, below conical top section with conical transition to underlying section

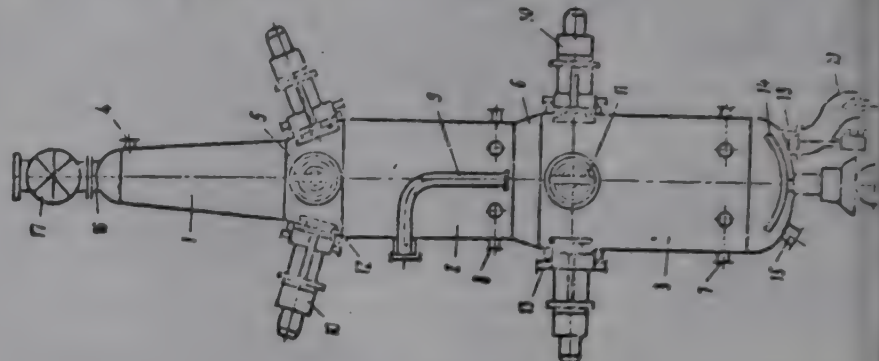
POGODINA A A 28.04.79-SU-762551

(23.01.81) B01j-19

28.04.79 as 762551 (132MI)

The hydrolyser comprises a vertical casing made up of sections (1-3), top (4) and a bottom (9) feeders, and a steam tube (7) with a hydrolysis product remover. To facilitate heating of stock in counterflow, section (1) is made as a cone with a mean diameter height ratio of 1:3.5 and a conical transition to section (2), while also incorporating the steam feed pipe.

Preferably, the product remover is made as a set of cleaning filters (10). A 6t/h unit, with a max. residence time h and an outflow density of 0.18-0.2 t/m³, has a zone 1.35 m diameter and 4.725 m. high. Hydrolysis of heme-cellulose, furfurole-forming components in section (2), with conversion of the pentose monosaccharides into furfurole, is accompanied in section (3) by hydrolysis of the polysaccharides of cellulose, lignin residue being removed through pipe (18) via turbuliser. Bul. 3/23.1.81. (3pp Dwg.No.1)



SNOW ★ D14 75700 D/41 ★WP 8102-6
Pulverising and discharge means for dried milk or fruit juice powder - in which material is broken up evenly without build-up by rotary comb type cutters and removed by screw conveyor

SNOW BRAND MILK PRODUCTS 25.03.80-JP-037891

P41 Q76 (01.10.81) B02c-13/06 F26b-17/02

25.03.81 as 000063 (1412PW) (J) J63001103 J54134383 J501393 J78043822 J74003660 N(CH DE US)

Pulverising means for multistage pulverisation and vacuum drying apparatus for producing powdered milk or fruit juice in which material is carried through a vacuum tower by conveyer belts is described. At the point of reverse travel of each conveyer belt, there is a detachable enclosing frame supporting a number of stationary cutters disposed across the width of the belt and aligned in the direction of belt movement and rotary cutters that pass between the stationary cutters to break up conveyed material, which then drops into a horizontal hopper and is carried to a suitable collecting means by a screw conveyor with flight angle the same as the rotating cutter angle and flight pitch times the rotating cutter pitch.

Compacter unit and build-up of conveyed material liable to override or push up cutters is avoided. (24pp)

See Also

D16 CA 1108065

D15: WATER TREATMENT

ACEC ★ D15 73736 D/41 ★BE-888-016
Catalytic reaction tank for liq. - contains inclined baffles for efficient sepn. of catalyst from treated liq. without use of external energy

ATEL CONSTR ELEC CHARLER 19.03.81-BE-888016

J04 (21.09.81) B01j

19.03.81 as 888016 (1144DH)

The tank forms a prim. decantation chamber with a rectangular cross-section; and a bed of a physicochemical- or biological- catalyst is located in the base of the chamber, which also has a bottom inlet for a reactive liq. In the chamber is a flat baffle inclined at 50-65 deg. w.r.t. the horizontal, and forming a gas collection hood.

The baffle leaves a space near one chamber wall, so a sec. decantation chamber is formed in the tank above the baffle. The sec. decantation chamber contains a stack of inclined sheets spaced apart and parallel with the baffle, and also a top outlet for the liq. treated by the catalyst.

Used in the treatment of contaminated waste water. The inclined baffle and sheets provide complete recovery of the catalyst, i.e. the latter does not reach the top outlet for the treated liq. (7pp)

RILEY/ ★ D15 D/41 ★BR 8001-63
Vinasses and sewage sludge treatment for energy generation

RILEY CMC 19.03.80-BR-001628

Q72 (22.09.81) C02f-01/02 C05f-05 C05f-07 F22b-01/16

JANS/ ★ D15 D/41 ★CS 7906-84
Dyeing and spinning works waste water purificn.

JANSOVA I 09.10.79-CS-006845

F01 (10.09.81) C02f-01/28

KOSI/ ★ D15 D/41 ★CS 8002-54
Protection of underground sources of potable and industrial water

KOSINA Z 12.04.80-CS-002540

Q42 (10.09.81) E02d-31

GRUN/ ★ D15 73856 D/41 ★DE 3008-98
Sewage sludge treatment - by aeration in tower after mixing with heterogeneous catalyst of synthetic resin chips

GRUNEWALD A 08.03.80-DE-008961

(01.10.81) C02f-11/02

08.03.80 as 008961 (39HM)

Sewage sludge and animal excreta are subjected to an aerobic

thetic resin chips, sanitized and humidified by aeration, and after completion of the rotting process, the heterogeneous catalyst is recovered for re-use.

This saves the consumption of carbon carriers such as sawdust and the necessity for a separate drying process. (15pp)

PA ★ D15 73934 D/41 ★ DE 3011-276
phosphate fibre mfr. effluents purificn. - in three stages of ponds
with specified species of growing reeds

ASTRAKHAN CELL-PAPE 24.03.80-DE-011276
(01.10.81) C02f-03/32

03.80 as 011276 (39HM)

System for the purification of industrial wastes, specially of the effluents from the sulphate fibre manufacture, uses three stages in which the effluents are kept for 2 to 3 days in each. In the first stage, the effluents pass through a pond with growing bull rush, in the second through a pond with lesser reed-mace and in the third through a pond with growing common reed.

This achieves an effective purification of these effluents by the nitrification of contaminants and a nitrification. The time required for this has been reduced. (17pp)

TT ★ D15 73943 D/41 ★ DE 3011-379
cement mixer flushing water neutralisation - by adding carbon dioxide under pH value control

BOTTROPER STAHLBAU 25.03.80-DE-011379

L02 (01.10.81) C02f-01/66

03.80 as 011379 (39HM)

Waste water from the flushing of concrete mixers and other concrete machinery has an extremely high pH-value and must be allowed to drain off without treatment. It is passed through a scrubber in which gaseous carbon dioxide is mixed with the turbulent liquid. A pH-meter supervises the alkalinity and keeps the liquid in a closed circuit until the desired pH-value is reached. The flushing water is admitted through pipe to the scrubber where tubular insets keep it in turbulence. Carbon dioxide is admitted through an adjustable control valve from the bottle. A pH-meter causes a control unit to keep an outlet valve near the meter shut so that the liquid circulates in a closed loop until the pH-value is reduced.

This is a quick process which saves the expense and space for settling basins. (17pp)

ERA ★ D15 73959 D/41 ★ DE 3011-574
water distn. appts. - with IR radiators and inclined condenser in horizontal quartz glass bulb

HERAEUS QUARZSCHMEL 26.03.80-DE-011574

(01.10.81) C02f-01/04

03.80 as 011574 (39AS)

Water distn. appts. consists of an elongated bulb with two IR radiators in tubes just above a water level control system which is surrounded by an open shell acting as a superheating column. All these parts are made of quartz glass. Oblique quartz glass condenser tube encloses a quartz glass coil as cooler and terminates at one end in a condensate run-off pipe and has at the other end a vent.

Appts. is used for the mfr. of high-purity water. Design is compact and energy saving. (9pp)

ER ★ D15 73994 D/41 ★ DE 3011-844
pn. of soluble substances from carrier liquids - by two-phase pumps, immersed jet reactors and froth flotation

UNIV GESERRICHTUNG 27.03.80-DE-011844

J01 (D18) (01.10.81) B01j-19 C02f-01/24 C02f-03 C02f-09 C07g-07

03.80 as 011844 (39HM)

System for the conversion and separation of dissolved or soluble substances from a carrier liquid, i.e. high molecular substances (proteins, proteides), e.g. in the biological sewage treatment or biochemical conversion of organic substances, uses an immersed jet reactor, followed by a two-phase pump through which the mixture is passed. Agents to promote the conversion or reaction (enzymes) are added in metered quantities. Air or oxygen is also added and a froth flotation completes the separation.

This reduces the apparatus required, intensifies the reaction density and shortens the time required for the process considerably. High separation efficiencies are achieved. (28pp)

TN ★ D15 74005 D/41 ★ DE 3011-932
inhibiting growth of marine organisms on surfaces - by adding hydrogen peroxide to sea-water, opt. together with other active ingredient

MITSUBISHI GAS CHEM IND 27.03.80-DE-011932

C03 E36 Q24 (01.10.81) A01n-58 B63j-05 C23f-11/18 C23f-14 C23f-15

03.80 as 011932 (1251HM)

growth of marine organisms on surfaces comprises adding

hydrogen peroxide and/or its precursor to the seawater which comes into contact with the surface. Opt. a second active ingredient (B) can be also added, i.e. chlorine or a cpd. generating available chlorine; hydrazine or its precursor; a quat. ammonium salt, or an organic sulphur cpd.

Peroxide is added to provide 0.01-500, pref. 0.05-100, ppm in the water, and pref. amts. of (B) are 0.01-1 ppm available chlorine; 0.1-50 ppm hydrazine; 0.1-5 ppm quat. ammonium salt or organic sulphur cpd. The two active ingredients can be added together or more pref. separately with a gap of up to 6 hr. between additions. Suitable quat. cpds. include cetyltrimethylammonium or laurylpyridinium chlorides, and suitable sulphur cpds. are e.g. tetramethylthiuram disulphide, 2-mercaptobenzothiazole etc.

The method is used to prevent growth of crustaceans, Bryozoa, Hydrozoa, etc. on piping, cooling plant etc. H₂O₂ is not toxic; decomposes to harmless materials and does not accumulate in the water. When used with (B) there is a synergistic increase in activity and the amt. of toxic (B) needed is reduced. (31pp)

MANO- D15 40973 B/22 = EP G002-101
Filter press with filter plate stack - in which plates are moved individually from stack for filter cake removal

MANOR ENG CO LTD 29.11.77-GB-049579 (25.10.77-GB-044264)

J01 (30.09.81) *EP---2-101 B01d-25/12

28.09.78 as 300425 (1358TM) (E) GB-829711 GB1058991 GB1218822 GB1234787 GB1263809 GB1349865 GB1441316 E(BE CH DE FR GB LU NL SE)

A filter press has plates movable singly on a frame from a stack for cake removal, and a carriage reciprocable transversely across the gap between the last moved and next to move plate with a pawl abutting the plates in one direction to limit the extent of reciprocation and another to drag the moved plate in the opposite direction.

A second carriage engages and holds back the next plate against unintentional movement, and is disengaged and repositioned once in each cycle. The second carriage is held in position by a pawl engaging between carriage and teeth on a rack extending along the press. The reciprocable carriage pref. has a lock for holding down the plate moving pawl during carriage reciprocation between successive complete cycles. (11pp)

STAHL/ D15 86284 B/48 = EP G005-553
Aerobic sewage treatment - in tank with revolving emerging hollow elements of specified shape

STAHLER T 22.05.78-DE-822347

(30.09.81) *EP---5-553 + C02f-03/08

21.05.79 as 101536 (39TM) (G) DE2544177 DE2615465 DE2638665 DS1184286 DS1815001 DS-159044 FR1320157 US3837492 E(AT BE CH DE FR GB LU NL SE)

An aeration tank for the treatment of sewage and sewage sludge has the shape of a horizontal vat with a semicylindrical bottom and an open top. A horizontal shaft, immersed at one-third of the depth down from the liquid level, carries several paddle wheels, each with a number (eight) of spokes with a hollow structure at the end. Each structure is open at the top and at the bottom, when a spoke is in a horizontal position, but closed at the sides.

A horizontal partition divides it into an upper and a lower space and the inside top wall is bent outward at one end. This results in a long retention time for the trapped air and prevents the deposition of sludge. (7pp)

HEIN/ ★ D15 74089 D/41 ★ EP --36-581
Incrustation prevention in aeration tanks - using layer of granular material at bottom

HEINISCH L 25.03.80-DE-011338

(30.09.81) B01j-10 B01j-19 C02f-01/74 C02f-03/10 C02f-07

13.03.81 as 101854 (39DH) (G) DE2243412 DE2040781 DE1584899 E(AT BE CH DE FR GB IT LI LU NL SE)

Tanks for the aeration of drinking water and other liquids are protected against deposits and incrustations which may impede their function by a layer of granular material on the perforated bottom through which the air is injected. The granular material (gravel or other non-floating particles) must be large enough not to drop through the perforation.

In a tank for the aeration of drinking water, with perforations of 2mm diameter, the size consist of 7 mm for gravel and a height of the layer of 1-2 cm has been found to be satisfactory.

This ensures troublefree operation over long periods. (4pp)

RIED ★ D15 74092 D/41 ★ EP --36-584
Ion-exchanger with polymer matrix - and chelate-forming anchor gps. linked through heterocyclic residue, for sepg. metals from soln.

RIEDEL DE HAEN AG 25.03.80-DE-011393

A91 J01 M25 (30.09.81) B01j-45 C08b-15/06 C08f-08

13.03.81 as 101865 (510HM) (G) No-Citns. E(DE FR GB)

A chelate-forming ion-exchanger has a matrix of an organic polymer with nucleophilic reactive gp. which have been linked

through a divalent heterocyclic residue contg. at least 1 N atom, with a cpd. which contains at least 1 chelate-forming anchor gp. The ion-exchanger contains at least 0.2 mmol./g of anchor gps.

The matrix is esp. an opt. cross-linked polymer of a vinylaromatic cpd., e.g. styrene, or may be cellulose. The reactive gps. are esp. OH, SH or prim. or sec. amino gps. The polymer is pref. in the form of fibres or spherical particles, with density 1-1.2 (1.05-1.15) kg/litre, and pref. with pores of 20-30 nm; the dia. of the spherical particles is 0.05-1 (0.1-0.2)mm. If the polymer is cross-linked, the degree of cross-linking is 2-10% (4-8%). The bridging residue is pref. a 5- or 6-membered ring with 2-3 N atoms and at least 2 (2-3) initiating gps., esp. halogen (Cl) or sulphonic acid gps. Cpds. include 3,4-dichloropyrrolidine, pyrrole 2,5-disulphonic acid, and 2,4,6-trichloro-1,3,5-triazine (I). The anchor gps. are pref. amino or OH gps. The amt. in the ion-exchanger is esp. 0.5-1.5 mmols./g.

The ion-exchanger is used in recovery of metals, esp. heavy metals, from very dil. aq. solns., e.g. waste water or sea water. (15pp)

FARH ★ D15 74096 D/41 ★EP --36-598
Liquid gasified in downward flow multistage tower - with gas entering top of each section and sepd. at bottom

HOECHST AG 26.03.80-DE-011614

J04 (30.09.81) B01d-53/14 B01f-03/04 B01f-05 B01j-10 B01j-19/04 C02f-03/22

16.03.81 as 101930 (236AT) (G) EP---1834 FR2257327 FR-915638 FR2321930 DE2443568 DS-211065 E(AT BE CH DE FR GB IT LI NL)

A multi-stage gasification method for downward flowing liqs. is carried out in a single appts. (tower) comprising at least two downward flow sections, one above another; the gas inlet to each section is at the top of that section, the gas bubbles are sepd. at the bottom of each section and the sepd. gas bubbles are conducted out from each section.

Pref. the sepn. of the gas bubbles is promoted by reducing the downward velocity of the liq. stream at the lower part of each section. The downward velocity is then pref. again increased as the liq. enters the next section, in order to entrain the gas bubbles down with it.

Used as multi-stage gasification appts. contained in a single plant item. A higher total gas throughput is obtd. in a single appts. than was previously possible. (19pp)

FARH ★ D15 74097 D/41 ★EP --36-599
Ozone absorption by downward flowing water in tower - at low flow velocity to counteract ascent of bubbles

HOECHST AG 26.03.80-DE-011615

E36 (30.09.81) B01f-03/04 B01f-05 B01j-10 C02f-01/78

18.03.81 as 101931 (236DH) (G) AT-324964 DE2203317 DE2120875 US-996561 DE2833190 E(AT BE CH DE FR GB IT LI NL)

Method consists of introducing an ozone-containing gas into a downward stream of water in the absorber. The gas is introduced at the top end of the absorber in the form of bubbles and is entrained downwards, to leave the absorber at a bottom outlet.

Pref. the downward velocity of the liquid is less than 0.6 m/s. The absorber pref. operates at a pressure of up to 7 bar. The absorber is pref. tubular.

Useful for ozone treatment of water, more specifically for destruction of organic impurities. The method permits the use of a compact, relatively low tower, also of low volume. In addition, the gas blanket at the top is minimised. (14pp)

PHOT. ★ D15 74118 D/41 ★EP --36-640
Electrolysis cell for reclaiming metals from aq. liquids - has open polymer frame carrying plate electrodes and immersed in liq. to be purified

PHOTOCHEMIE AG 24.03.80-CH-002281

A92 M25 (30.09.81) C02f-01/46 C25c-07

20.03.81 as 102101 (1144HM) (G) DE2057606 DE1925099 E(AT BE CH DE FR GB IT LI LU NL SE)

The liqs. are industrial process solns. or waste water requiring purificn. The cell contains several electrode plates supported by at least one open, insulating frame, which is also used to suspend the cell in a tank filled with the liq. to be purified. At least one perforated pipe is used to feed a gas into the cell; and the ascending gas bubbles carry the liq. between the electrode plates.

The pref. cell has a central anode plate located between two outer metal cathode plates made of stainless steel; and air pipes supply bubbles of air so the liq. flows freely between the plates. The frame is pref. made of hard PVC; and the cathodes may alternatively consist of copper.

Esp. to remove metals from rinsing water employed in electroplating plant. (13pp)

PASE ★ D15 74182 D/41 ★EP --36
Raking device for settling basins - with weight exerting variable load on hinged raking blade

PASSAVANT-WERKE AG 26.03.80-DE-011752

(30.09.81) C02f-11

24.03.81 as 102205 (39NS) (G) DS2343182 AT-277093 E(AT BE DE FR IT LU LI NL)

Device for settling basins, sludge traps etc. is equipped with travelling bridge which moves on wheels along the top of basin and carries a raking blade on a swivelling arm. The hinged to the bridge and can be raised by a rope attached to winch. A load on the raking blade is generated by a weight which is carried on two parallel arms in such a way that the centre of gravity of the wt lies in the working position below the pivot of swivelling arm.

The result is a restoring force which rises first to a maximum over an angular path of 20-45 deg. and then decreases. The raking blade can thus yield to harder deposits and tackle them in several passes. (14pp)

DEGM ★ D15 74195 D/41 ★EP --36
Water filter with water distribution gutter - which is also used to remove water employed for periodic cleaning of filter

DEGREMONT SA 26.03.80-FR-006665

J01 (30.09.81) B01d-23/20

03.03.81 as 400324 (1144AS) (F) FR1011221 FR1064129 US1465 US3613888 US4118320 US4118322 E(BE CH DE GB IT LI)

Water filter with water distribution gutter. The filter casing contains a bed of granular filter material; and water to be filtered is fed into a gutter extending along one entire side of the casing. The water flows up the gutter, and then over a weir with a profiled nose, so the water is uniformly distributed across the bed. The water then flows downwards through the bed to a bottom outlet valve for filtered water.

The top edge of the weir is sepd. by a gap from the sloping roof on the gutter. During the de-clogging of the bed by an air-wash mist, the top of the gutter remains closed due to the hydrostatic pressure of water above the bed.

Used for simple periodic cleaning of a filter used for purification of all types of water. (14pp)

BEAU. ★ D15 74270 D/41 ★FR 2477-
Double-flow, endless chain filter, esp. for water - where filter located on plate fixed between side walls of water intake channel

BEAUDREY E & CIE 03.03.80-FR-004676

J01 Q42 (04.09.81) B01d-35/02 E02b-05/08 E02b-08/08 E02b-07/07 E03b-09/16

03.03.80 as 004678 (1144HM)

The filter includes a carrier frame with a driven roller on which an endless belt filter apron travels. The frame is provided with a retaining wall aligned at 90 deg. w.r.t. the surface of the apron and the wall has a long oval hole coinciding with the oval path along which the apron travels. Each long edge of the wall has a lip, so it can be joined to a vertical guide in a channel, esp. water intake channel.

The pref. wall is a metal plate with a U-shaped cross-section and each edge of the plate has a longitudinal lip mating with the two vertical guides; and the bottom edge of the plate is provided with a sealing strip on the base of the water channel.

Water being filtered flows simultaneously through two sections of the apron, which may possess a mesh with holes below 0.5 mm in dia. (12pp)

UNVO D15 66696 A/37 = GB 1599-54
Drying and extrusion of organic waste to form e.g. fertiliser with addn. of plasticiser, e.g. formaldehyde and opt. an extrusion aid, e.g. bentonite

UOP INC 07.07.77-US-813578 (08.03.77-US-775673)

C04 Q76 (07.10.81) *US4099-336 + C05f-07

08.03.78 as 009165 (1358RP)

A stream of wet organic waste, partic. sewage sludge, is dried by evaporating the water, passing to a solids-vapour separation zone and extruding part of the resultant particulates solids flow containing less than 15 wt.% water to form a product stream with bulk density of 481-1041 kg/m³.

The solids are pref. plasticised within the extruder by adding formaldehyde solution, and bentonite may be added as an extrusion aid at less than 10 wt.%. A second part of the particulate solids is pref. mixed with incoming sludge. The organic waste contained in the dry solids stream pref. has a bulk density less than 256 kg/m³. Drying is pref. carried out in a toroidal dryer, and the dry solids are at a temp. above 93 deg. during extrusion. (8pp)

VENT- D15 47752 A/27 = GB 1599-647
Immerged gas injector to aerate waste water etc. - is free
standing and low enough to operate in shallow tanks
VENTURATOR LTD 22.11.77-GB-048512
J02 (07.10.81) *BE-862-466 B01f-03/04 B01f-05/10
05.78 as ----- (006TM)
liquid aeration appts. e.g. for sewage tanks or fish farming
tanks, comprises a hollow horizontal ring standing on 2 or more
legs which allow liquid to enter from below into the passage
within the ring.

A central throat in the passage is bounded by air inlet ports.
Pref. the ring height is less than its dia. and it can operate in
shallow liquid, and outer walls of the ring diverge from each
other to an equator which includes the throat, and then coverage
wards each other to the tops of the legs. (4pp)

EWV- ★ D15 74286 D/41 ★GB 1599-675
Floculating tank for clarifying water - in which water dosed with
floculating agent is supplied to evenly spaced locations at tank
bottom

NEWCASTLE GATESHEAD 10.01.78-GB-000828
(07.10.81) C02f-01/52
01.78 as 000828 (67BZ)

Floculating tank for clarifying impure water using a
floculating agent comprises a settling tank in which the
floculating agent is added to water entering the tank. The water
supplied to the bottom of the tank at a no. of evenly spaced
locations from branched supply heads each comprising a central
pipe and a symmetrical arrangement of curved branch pipes
extending downwardly into the tank. The floculating agent
forms a porous scum through which the water flows upwardly
and clarified water is drawn off above the scum level.

Used for purificn. of impure water for domestic and industrial
use. (4pp)

PURE- D15 55424 A/31 = GB 1599-706
Dosed circle domestic waste water recycling - by digester, filter,
in exchange bed and ultraviolet steriliser

PURE CYCLE CORP 24.01.77-US-762103
(07.10.81) *DE2802-725 C02f-03/02 + C02f-01/42 C02f-09
01.78 as 002853 (006TM)

Dosed recycle appts. for drinking water prodn. from waste
water, comprises a microprocessor responsive to the output of a
system which monitors a filtration unit, a demineraliser, and a
biological aerobic treatment unit.

The microprocessor controls back-flushing of the filtration
unit, water quality, and fail-safe controls, as well as operation of
the demineraliser and aerobic unit, according to detection of
variations in their operation by the monitoring system. (8pp)

YST- ★ D15 74288 D/41 ★GB 1599-760
Aerobic microbial conversion or organic matter to methane
and liq. - using fermentation column with height to width ratio of
to 20:1

UNIV OF STRATHCLYDE 26.03.77-GB-012827
C04 E17 (C03) (07.10.81) C02f-03/28
05.81 as 012827 (916BZ)

Aerobic microbial conversion of organic matter to methane
and a liquid product is achieved by passing a suspension or soln.
of the organic matter containing micro-organisms, including
methane producing types, into a column with a height to width
ratio of 7:1 to 20:1 and maintaining at 5 to 50 deg.C. As the organic
matter is converted, fresh material is added to the column and
spent material removed.

The organic matter may be pig slurry, cow slurry, yeast slurry,
ground cereal slurry, alcoholic washes, yeast extracts, fish by-
products, slaughterhouse effluent, seaweed residues, cellulose
and organic materials protected from deterioration by content of
organic acid. The microorganisms for the culture may be
obtained from animal manure, grass clippings, mud from
stagnant water, animal digestive tracts, industrial effluent and
municipal anaerobic digestors.

The solid material produced can be used as a soil conditioner
and fertiliser. Methane is produced in high yields. The energy
consumption is low. (4pp)

CRAW/ ★ D15 74290 D/41 ★GB 1599-809
Water distn. plant - which ducts atmos. enclosed in flexible sheet
envelope to condenser

CRAWFORD FA 20.04.78-GB-015579
(07.10.81) B01d-03
04.78 as 015579 (67MR)

The plant comprises a flexible sheet or envelope, pref. of plastics,
isolating an atmos. exposed to the free surface of water to be
heated from the surrounding atmos. The atmos. within the sheet
envelope is ducted to a condenser. The water beneath the sheet
envelope is heated to cause evapn. from the free surface, e.g.

by the sun's rays passing through the sheet or envelope or by
discharging hot industrial waste into the water.

This simple construction is capable of distilling contaminated
water irrespective of its solid content. (5pp)

HEID- D15 58711 A/33 = GB 1599-851
Removal of water from effluent slime - and recovery of heavy
metals

HEIDEMAATS BEHEER 07.02.77-NL-001263
A97 J01 M25 (07.10.81) *BE-863-432 + C02f-11/16
07.02.78 as 004917 (006TM)

Sludge dewatering method esp. for sewage, involves depositing
sludge on a sand bed which contains porous drainage pipes and is
within dikes. Drainage water is pumped from the pipes i.e. to
outside the dikes.

In the sludge surface one or more trenches are formed
connecting with a drainage conduit for collecting surface water
from the trenches and leading it outside the dikes. Pref. cable-
operated carriages have tools for trench-forming by compression
e.g. rollers. (-pp)

MCOB- ★ D15 74333 D/41 ★GB 2072-649
Fermentation plant produce gas from manure - with elastic
insulating roof supported on network of ropes

MCO BYGNADS AB 28.03.80-SE-002406
(D16) (07.10.81) C02f-03/28
24.03.81 as 009101 (295BJ)

Gas is produced from organic matter such as manure using a
fermentation plant. This includes a tank with an elastic roof.
Organic matter is delivered to the tank and fermented residues
are withdrawn. The gas is removed via a conduit. The roof
consists of an open-work carrying structure of strands or ropes
stretched over the top of the tank, and freely supporting an
insulating layer. Both the structure and insulating layer are
secured to the outside wall of the tank.

The apparatus is used to produce gas used as a fuel for a
furnace or internal combustion engine. The roof structure is
cheap, safe in use and minimises gas leakage.09 (6pp)

TEIJ ★ D15 74670 D/41 ★J5 6108-504
Cellulose ester reverse osmosis membrane prodn. - by casting
soln. of the ester and swelling agent comprising organic cpd.
contg. carboxyl and carboxamide gps.

TEIJIN KK 04.02.80-JP-011426
A88 J01 (A11) (28.08.81) B01d-13
04.02.80 as 011426 (96RP)

The process comprises casting a soln. consisting of cellulose
ester, solvent and swelling agent. Organic cpd. of molecular wt.
of less than 350, which contains below 5 carboxyl gps. (-COOH)
and carboxamide gps. (-C(O)N(H)-) in total of both, if necessary,
less than 3 hydroxyl gps. is used as swelling agent.

Strict temp. control is not required. Film making may be
carried out at room temp. Good quality membrane may be obtd.
over wide range of condition.

Typically into a mixed solvent of 37.8g of acetone and 46.8g of
1,4-dioxane there was dissolved 17.7g of a mixt. of cellulose di-
acetate and cellulose triacetate, and to the soln. there was added
soln. dissolved 3g of HOOCCH:CH-CONHCH2CH2OH in 7 pts. of
methanol, and the resulting soln. was cast in 0.2 mm thickness on
a glass plate. After evaporated the solvent at 25 deg.C and 35%
humidity, the cast was immersed in ice water to gelatinise. After
1 h, the membrane was drawn, and treated in hot water
maintained at a given temp. for 5 min. (7pp)

TEIJ ★ D15 74671 D/41 ★J5 6108-505
Reverse osmosis membrane comprising cellulose ester mfr. - by
casting a soln. contg. cellulose ester, solvent and swelling agent,
partially drying and immersing it in non-solvent mfg.

TEIJIN KK 04.02.80-JP-011427
A88 J01 (A11) (28.08.81) B01d-13
04.02.80 as 011427 (96AT)

Mfg. reverse osmosis membrane consisting of cellulose ester
comprises casting a soln. contg. cellulose ester, solvent, and
swelling agent, and after partially drying it, immersing the cast
in non-solvent. Trimellitic acid alone and/or additional cpd. of
trimellitic acid anhydride and monoalcohol of less than 4C or
glycol are used as swelling agent.

In an example, to 102.31 g of soln. consisting of 14.17g cellulose
diacetate, 3.54 g cellulose triacetate, 37.8 g acetone and 46.8 g 1,4-
dioxane was added a soln. contg. 3 g trimellitic acid dissolved in
mixed soln. of 7 g of methanol and 3 g of water to prepare casting
soln. The casting soln. was cast in thickness in 0.2 mm on a glass
plate, and solvent was evapd. at room temp. and 35% humidity.
Afterward, the cast was immersed in ice water to gelatinise.
After 1 hr, the membrane was drawn, and treated in hot water.

The swelling agent makes it possible to mfr. a good cellulose
ester membrane by room temp. filming, and the membrane may

be widely used in the form of tubular, spiral or hollow fibre modules. (4pp)

MITO ★ D15 74694 D/41 ★ J5 6108-587
Treating waste water contg. free chlorine etc. - by passage through activated charcoal impregnated with cobalt oxide
 MITSUBISHI HEAVY IND KK 01.02.80-JP-010027
 (28.08.81) C02f-01/28

01.02.80 as 010027 (34DH)
 Free chlorine e.g. Cl₂, HOCl and OCl⁻ in waste waters e.g. domestic and industrial effluents, etc. is effectively removed or catalytic decomposed by passing the waste water through granular activated charcoal impregnated with CoO. The catalyst is e.g. prepd. by impregnating granular activated charcoal with aq. soln. of Co salt, followed by drying and calcination to form CoO coatings on the surfaces of the activated charcoal granules.

In an example, a waste water, having NaClO content of 4,200 ppm (2,000 ppm as ClO⁻) is passed through a column packed with 10 litres of globular activated charcoal (2 mm in dia) impregnated with 2.7 wt.% of CoO at a flow rate of 1,000 l/hr to give 2,000 liters of treated water having ClO⁻ content of less than 0.1 ppm and NaCl content of 3,300 ppm. After 2 hrs. Co ion was not found in the treated water. (2pp)

MITO ★ D15 74778 D/41 ★ J5 6108-885
Processing pickling plant waste waters - involves electrodialysis and subsequent sepn. of acid and dilute soln. for recirculation
 MITSUBISHI HEAVY IND KK 04.02.80-JP-011445
 M12 (28.08.81) C02f-01/46 C23g-01/36

04.02.80 as 011445 (53DH)
 Treatment of a steel plate pickling rinse waste liq. involves a combination of electrodialysis and acid recovery. The waste liq. is subjected to electrodialysis treatment, the obtd. dilute liq. is returned to the rinse tank, while the concd. soln. is sepd. into acid and iron cpd. and the acid is returned to the pickling tank.

The discharged water contains ferrous ions so that the effluent may be coloured, but this invention produces no discharge water. Iron hydroxide sludge is not produced but recovered as reusable iron oxide or iron sulphate in solid form. Neutralisation tank, pptn. tank and neutralisation alkali chemicals are not required. Full automation can be employed. (4pp)

OSAG ★ D15 74786 D/41 ★ J5 6108-954
Analysis of ion conc. in water by ion exchange chromatography - includes pretreatment by passage through resin to remove organics

OSAKA GAS KK 02.02.80-JP-011691
 A91 J04 (28.08.81) G01n-31/08
 02.02.80 as 011691 (173NS)
 Conc. of ion(s) in water is determined by a method comprising (1) passing the water sample through a layer of resin particles capable of absorbing organic substances in the sample without retaining the ion(s) to be analysed, and (2) analysing the pre-treated water sample by ion-exchange chromatography.

In an example, the resin particles are styrene-DVB copolymers beads, e.g. Amberlite XAD-2.

The ion exchange column is protected from contamination by organics. (3pp)

MITU ★ D15 74899 D/41 ★ J8 1036-994
Treatment of waste water contg. nitrophenol - by redn. of nitrophenol to aminophenol, which is then oxidatively decomposed in presence of nitrate ions (J5 28.2.75)
 MITSUBISHI CHEM IND KK 21.06.73-JP-070216
 E14 (27.08.81) C02f-01/74 C02f-09

21.06.73 as 070216 (83NS)
 Method comprises contacting nitrophenol-contg. waste water with H₂ in the presence of metal catalyst to reduce nitrophenol into aminophenol, and blowing O₂-contg. gas into the water at high temp. and pressure in the presence of NO₃ to oxidatively decompose the aminophenol.

Typical oxidn. condition is 180 to 200 deg.C, 20 Kg/cm². (J50019258) (3pp)

NIPS D15 43539 V/24 = J8 1039-358
Fixing heavy metals or their cpds in aqs. wastes - using aliphatic or aromatic dithiocarbamates to form water-insol cpds
 NIPPON SODA KK 30.01.73-JP-012311
 E19 + P34 P35 P43 (12.09.81) *BE-810-369 B01j-20/22 B09b-03 C04b-29 C09k-03

30.01.73 as 012311 (AT)
 Ni, Cr, Zn, Pb, Cu, Cd, Ag, Mn, Bi, V and esp. Hg cpds. of them in industrial and chemical effluents may be fixed using dithiocarbamates in effective amts. 0.01-50%. Also 0.001-10% (pref. 0.001-1%) of the agent in Portland cement prevents the passage of heavy metals through it when in the form of

dithiocarbamate contains an aliphatic chain opt. contg. a S atom instead of a C atom and 1 or more dithiocarbamate gps. C(S)-S- e.g. ethylene dithiocarbamate acid, poly(dithiocarbamate) diethylene triamine or an alkali(ne earth) metal salt. aromatic dithiocarbamate is e.g. o-, m- and p-methylphenyldithiocarbamic acid, melamine-1-dithio-carbamate acid or their alkali(ne earth) metal salts. (J49099978) (15pp)

AGEN ★ D15 75027 D/41 ★ J8 1039-1039
Determination of organic contaminants in water - by absorption of light in UV region (J5 21.6.77)

AGENCY OF IND SCI TECH 16.12.75-JP-150332
 J04 (12.09.81) G01n-21/33 G01n-33/18
 16.12.75 as 150332 (126AS)
 Light absorption (E₁, E₂, E₃) of a sample for 3 optical wavelengths (λ₁, λ₂, λ₃) in the UV region is measured, (E₁ - E₃)/(E₂ - E₃) is calculated, and the content of organic contaminants in the water is determined. (J52073789) (6pp)

AGEN D15 30716 B/16 = J8 1039-1039
Aggregating agent NOC-1 for microbes - is prepd. by culturing Nocardia bacteria

AGENCY OF IND SCI TECH 15.08.77-JP-097673
 (D16) (14.09.81) *J54032-696 B01d-21/* C12r-01/36 + C02f-01/36 C12n-01/02 C12p-21
 15.08.77 as 097673 (5JB)

The method comprises culturing bacteria belonging to Nocardia and recovering the aggregating agent NOC-1 from the culture prod. The agent can be used to prevent bulking by the activated sludge process in waste water treatment and for removing floating microbes from fermentation.

Pref. bacteria is Nocardia erythropores KR-256-2 (FERM 3923). The culture can be practiced either by liq. or solid culture. The liq. culture is at 20-40 deg.C and pH 4-8, using submerged culture for 10 days. After addn. of organic solvent to the clear to soln., the formed ppte. is recovered by centrifuging and is refined by dissolving it in water, removing insolubles, adding acetone and recovering the ppte. The obtd. prod. NOC-1 is a white, water soluble powder and shows excellent aggregating activity of microbes. For solid culture, the bacterial body is suspended in physiologically saline water and after stirring the suspension, the top clear is recovered. From the top clear objective aggregating agent NOC-1 can be obtd. (J54032696) (5pp)

PERM- D15 23987 C/14 = J8 1039-71
Electrode for metal halide soln. electrolysis - contains conductive substrate coated with platinum, tin oxide and opt. cobalt oxide (NL 25.3.80)

PERMELEC ELECTRODE 22.09.78-JP-115894
 E36 J03 X25 (16.09.81) *DE2936-033 C25b-01/34 C25b-11/06
 22.09.78 as 115894 (200MR)
 Electrode comprises an electrically conducting substrate on which a coating, (A), is formed contg. (1) 50-95 mol.% Pt and (2) 5-50 mol.% SnO₂ or (b) 5-50 mol.% SnO₂ and CoO, provided SnO₂ proportion is greater than 5 mol.% and CoO proportion is less than 20 mol.%.

The electrode is used esp. for the low temp. (20 deg.C) electrolysis of dil. alkali metal halide solns., partic. sea water, to form Cl₂ at anode, e.g. to prevent organism adhesion to underwater structures, for water treatment in baths, town- and waste water systems or for sterilising and bleaching.

The electrodes have high current yield in Cl₂ generation and high stability. Potential difference between Cl₂ generation potential and O₂ generation potential can be kept high (J55044514) (5pp)

NISY D15 15115 A/08 = J8 1039-87
Microbial decomposition of PVA resin in waste water - by culturing Corynebacterium using the PVA as carbon source
 NIPPON SYNTH CHEM IND 30.06.76-JP-078356
 A35 (A14 D16) (16.09.81) *J53003-582 C12r-01/15 + C02f-03/03 C12n-01/20
 30.06.76 as 078356 (5AS)

The PVA resin in waste water, etc. can be microbially decomposed rapidly with high reproducibility. The decomposing velocity can be further increased by adding at least 1 acetic acid acetic acid salts and acetic acid esters.

The bacteria is e.g. Corynebacterium paurometabolum IFO 12160, Corynebacterium rathayi IFO 12161, etc. Pref. concn. of PVA resin in the culture medium is 0.01-0.2%. Acetic acid, its salt or its ester is pref. used in an amt. of 20-300% of the PVA resin. The culture is practised at 20-37 deg. C and pH 6-8 for 3-7 days. (J53003582) (4pp)

RH **D15** **90225 R/48 = NL-167-855**
 Inforced tubular semi-permeable membrane - for water
 teners
HOECHST AG (KALL) 09.06.69-DE-929158
A33 J01 + P42 (A88) (16.09.81) *BE-751-642 + B01d-13/04
 05.80 as 007713 (160TM)
 The method continuously produces a hose internally lined with
 lymer, a hose with lengthwise seam being formed from a self-
 supporting permeable strip as it is moved downwards. A liquid
 layer of polymer solution is applied to the inside wall as it is
 moved further downwards, and a liquid is caused to act on the
 lymer so that the latter deposits on the inside wall.
 To form a hose with a semipermeable membrane lining,
 solvents are expelled from the surface of the liquid layer applied,
 after which a precipitation liquid is used to cause polymer
 deposition without alteration to its chemical structure. (5pp)

CM **D15** **10641 A/06 = NL-167-859**
 Preparation of foaming liquors - using immersed pump with
 separate liquid and air intakes (NL 31.1.78)
BUCHERGUYER MASCH 27.07.76-CH-009568
+ P41 (16.09.81) *DE2730-190 B01f-03/04 B01f-13/02 C02f-03/16
 07.77 as 007876 (160TM)
 The aeration equipment for easily foaming liquids, has a liquid
 intake pipe widening in a funnel to an upper edge and contg. a
 concentric air suction pipe, while an immersion pump is mounted
 below the pipes. The liquid intake pipe is so mounted that in use
 the liquid is drawn in from below the layer of surface foam.
 The air intake pipe also widens in a funnel shape to its upper
 edge, which is above the level of that of the liquid intake pipe. The
 maximum level difference represents the maximum permissible
 thickness of the layer of foam on the liquid. (11pp)

HM **D15** **05553 S/03 = NL-167-938**
 Low silica deionized water
ROHM & HAAS CO 09.07.69-JP-054260
 (16.09.81) *NL7009-922 + C02f-01/42
 07.70 as 009922 (510TM)
 Water contg. mineral ions is deionised by (a) contacting the water
 with a strong acid cation-exchanger, (b) dividing the acid-
 treated water into a larger portion and a smaller portion, (c)
 contacting the larger portion with a weak basic anion-exchanger,
 (d) mixing the treated larger portion with the smaller portion,
 and (e) contacting the mixt., which contains silicic acid ions and
 ions of inorganic acid in a ratio of 6:4-9.8:0.2, with a strong basic
 ion-exchanger contg. trialkylammonium gps.
 There is a saving in the amt. of basic ion-exchangers needed,
 and thus a saving in the amt. of regenerating agent. The process
 is of especial value in removing silicic acid, partic. from water to
 be used in steam turbines. (9pp)

RG-★ **D15** **D/41 ★SE 8001-258**
 Tap water ionisation - in which water is passed through tube
 contg. AC connected coil between magnetised plates
BIRGIT OCHITROENG 18.02.80-SE-001258
X25 (21.09.81) C02f-01/48
 02.80 as 001258 (1161WB)
 The mechanism ionises tap water, and involves fluid passing through
 a tubular, non-electrically conductive and non-magnetisable body.
 This body carries a coil of electrically conductive material with
 its ends connected to an alternating current source to produce an
 alternating magnetic field in at least the area of the coil centre.
 On either side of the coil is a circular plate of magnetisable
 material.

PE/ **D15** **52733 B/29 = SU-797-548**
 Filter for reverse osmosis or ultrafiltration - having cylindrical
 filter element inside tube with spiral path for concentrate to keep
 filter surface clear
APPENZELLER V (KUST) 05.01.78-DE-800425
J01 (15.01.81) *DE2800-425 + B01d-27/12 B01d-31
 01.79 as 706010 (1053WD)
 The filter arrangement has at least one tubular filter body with a
 porous wall through which the liq. flows radially. This filter
 retains particles above a certain size. The surface has a spiral
 passage in it which forms a spiral passage for the liq.
 The spiral passage is completed by a tube which surrounds the
 filter element. The passage runs along the axis of the element.
 Used for ultrafiltration e.g. recovery of water from effluent.
 The use of the spiral passage ensures that the surface is kept
 clean during the filtration and allows a uniform pressure to be
 maintained. Bul. 2/15.1.81. (5pp)

STOP- **D15** **61449 Y/85 = SU-797-553**
 Detoxication of residue obtd. in working chrome ores - using wet
 treatment with sulphur to form insoluble chromic oxide
STOPPANISA 24.02.76-IT-020518
E34 M25 P35 + P41 (15.01.81) *DE2704-775 B03b-05
 23.02.77 as 454656 (1144GW)
 Wastes are detoxified, the novelty being the treatment of residue
 obtd. after washing roasted Cr ore with water to remove soluble
 hexavalent Cr cpds.; where the residue is wet milled and sieved
 to obtain size; max. 5-10% above 0.4mm., and 40-60% below
 0.08mm. The residue is then treated at ca. 100 deg. C, for 1-4 hrs.
 with an aq. emulsion of sulphur in alkali (ne earth) sulphides,
 using 1-60, esp. 30-35 wt. % of solids in the reactor.

The reaction mixt. is then conc. and filtered, to obtain a
 detoxified earth and a filtrate which can be partly recycled for
 set milling or to the reactor. The sulphur may be solid or molten,
 and 5 pts. used per 100 pts. of the dry residue. The reaction mixt.
 obtd. may be allowed to settle, and the supernatant liq. recycled
 to the reactor. Sulphur is pref. added to the reactor only at the
 start of the process, as it automatically obtd. during
 recirculation, and the filtrate or supernatant liq. is pref. fed
 through a plant for recovery of thiosulphate and then recycled.
 The process may be carried out in batches, continuously, or semi-
 continuously.

The process is used for detoxication of residues obtd. in
 working Cr ores, and simultaneous recovery of sodium
 thiosulphate. Bul. 2/15.1.81. (3pp)

EOCA = ★ **D15** **75394 D/41 ★SU-798-036**
 Quantitative determ. of nitrate in waste water, soil etc. -
 includes treatment with colour forming ferrous salt in aq.
 orthophosphoric acid and spectrophotometry
E COAL CHEM RES INS 17.08.78-SU-654744
Q51 (23.01.81) C01b-21/38 F01n-21/27
 17.08.78 as 654744 (938WD)

Determination of nitrates in aq. soln. is used in biochemical
 purificn. of waste water contg. ammonia and for testing water,
 air, soil, fertilisers, etc. The analytic procedure includes the
 treatment of test soln. with ferrous salt and mineral acid and
 spectrophotometric analysis of the resulting coloured soln.

More accurate results are obtd. more simply if test sample is
 pretreated with colour forming ferrous salt in aq.
 orthophosphoric acid soln.

In testing for nitrates in the presence of chlorides acid density
 is 1.73-1.78 g/cu.cm. and the acid treatment is conducted at 20-100
 deg.C. Bul. 3/23.1.81. (3pp)

SOYU = ★ **D15** **75404 D/41 ★SU-798-046**
 Settler for removing solids from aq. waste - contg. rotating
 floating material collector on tube coaxial with intermittently
 rotating tube carrying collector for removing solid residues
SOYUZVODOKANALPROEK 26.02.79-SU-754352
 (23.01.81) C02f-01

26.02.79 as 754352 (815VE)
 Waste liquors are sprayed by a distributor into a settler contg. 2
 coaxially rotating tubes, the outer tube carrying a 2-bladed
 scraper for floating material and the distribution head for the
 liquor, and the inner tube carrying a scraper for the residue. The
 two tubes are driven independently, the outer one continuously,
 the inner one intermittently, and the process ensures continuous
 collection of floating material with periodic sepn. of residue.

The outer tube is rotated at 0.12 rpm, the floating material
 collected by the scraper to a foam collector, and the scraper on
 the inner tube is rotated periodically at 0.05 rpm. to move the
 residue, falling out to the bottom, to the centre of the collector.
 The apparatus is an improvement on the previous one in which
 the two tubes could not be driven independently. Bul. 3/23.1.81
 (2pp)

CEPA ★ **D15** **75405 D/41 ★SU-798-047**
 Removing heavy metals from etching waste - by conversion to
 hydroxide(s) followed by flotation with addn. of black sulphate lye
 and polyoxyethylene
CELLULOSE PAPER IND RES 14.02.77-SU-451793
J01 M12 (23.01.81) C02f-01/24
 14.02.77 as 451793 (815VE)

Acid waste from etching processes is treated to remove heavy
 metals by neutralisation with formn. of hydroxides, which are
 then subjected to flotation, and the degree of purificn. can be
 increased to 98-99% and process time reduced with consequent
 energy savings if the flotation reagent used is black sulphate lye
 and polyoxyethylene, added in that order, in the ratio metal
 hydroxide to sulphate of 1:0.15-1.9, and hydroxide to
 polyoxyethylene 1:0.04-0.14, giving a ratio of sulphate to
 polyoxyethylene of 2:1-4:1. The degree of purification obtd. with
 either reagent alone is zero, and that obtd. with the previous

reagent was 95-98%. (4pp)

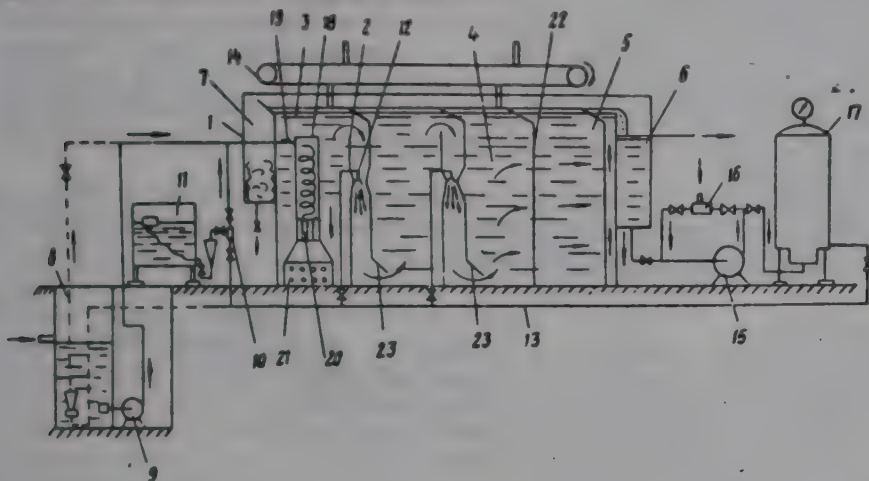
SAVI/ ★ D15 75406 D/41 ★SU-798-048
Liquid effluent cleaner - has smoothing partitions and perforated cylinder in one of feed channels formed by paired partitions with deflectors etc.

SAVIN A N 10.01.79-SU-711852

(23.01.81) C02f-01/24

10.01.79 as 711852 Add to 429030 (132MI)

The cleaner according to the Parent Cert. No. 429030 comprises a casing (1) split up by paired partitions (2) and having water-air mixture supply tubes, a clean-water recirculator, a coagulant dispenser, and a scraper. To increase the utilisation of the chambers thus formed, two perforated partitions supplement deflectors on partitions (2), and a cylindrical vessel closed at the top in one of the chambers incorporates smoothing partitions and a perforated cylinder. (3pp Dwg.No.1)



RAKH/ ★ D15 75408 D/41 ★SU-798-050
Removing hypochlorite from industrial waste - by conversion to calcium chloride and carbonate using formaldehyde soln.

RAKHIMOV R R 15.07.76-SU-386472

E36 (23.01.81) C02f-01/58

15.07.76 as 386472 (815VE)

Active chlorine in the form of hypochlorite is removed rapidly and simply from industrial wastes by treating with an 8-36% soln. of formaldehyde, which is inexpensive compared to the previous reagent, formic acid or its salts.

The process takes only 10 min. compared to the previous time of about 30 min., and gives cleaned water with a low level of mineral cpds. such as carbonates, since the formaldehyde reacts with the hypochlorite to give 1 mol. of CaCl_2 and 1 of CaCO_3 , instead of 1 of CaCl_2 and 2 of CaCO_3 as before.

The method is used in mfr. of calcium hypochlorite, chlorine, lime etc. and in non-ferrous metal extn. via their chlorides. (2pp)

MINE = ★ D15 75409 D/41 ★SU-798-051
Liquids surface aeration - using plane stream of same liquid applied to liquid surface, to reduce energy consumption

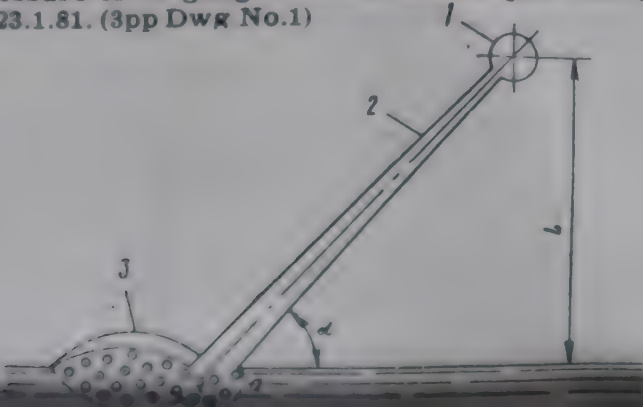
MINED CHEM RAW MATL 25.04.74-SU-019571

(23.01.81) C02f-03/02

25.04.74 as 019571 (132VE)

The process comprises feed of a stream of the actual liquid at an acute angle to the surface of the liquid being aerated. To increase performance, a plane liquid stream is applied, the angle of feed being 20-75 (pref. 30-45 deg.), the height 30-50 cm. and the pressure 1-1.5 gauge atmos.

Typically, the liquid forced through the slit in manifold (1) as a stream (2) gives splashing (3) and entrainment of air in (b) region at angle (α) of 45 deg. gives 18 and 3.5 l/min. air dispersion on operating with a plane and a circular stream respectively, at an overpressure of 1.5 gauge atmos., and a liquid flow of 2.1 l/min. Bul. 3/23.1.81. (3pp Dwg No.1)



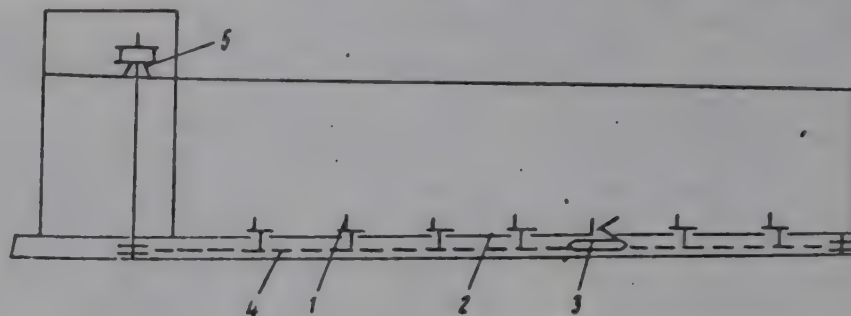
KHWA = ★ D15 75410 D/41 ★SU-798-052
Bottom discharger for deposit removal in water tanks - has driven carriage in discharge channel, while valve on channel side has support with one degree of freedom

KHARK BR WATER SUPP(KHAR =) 25.12.78-SU-701363
(23.01.81) C02f-11

25.12.78 as 701363 (132MI)

The discharger comprises a discharge channel (2) with valves (1) overlapping this, and a drive (5). To reduce the installed capacity, a moving carriage (3) in the channel is linked to the drive, while the valve on the channel side has a support with one degree of freedom.

The carriage moved by the flexible rod (4) raises the hinged support (10) on its guide (11), for rotation to allow the deposit to fall into the channel (2). Once the carriage has passed, the valve (1) closes under its own weight and that of the water in the tank, closure being maintained during return of the carriage, through rotation of the support in its hinge. Bul. 3/23.1.81. (3pp Dwg.No.1)



MODO- D15 31335 C/18 #US 4290-269
Power generation from organic waste combustion - by recycling exhaust steam from turbines to drying sections

MODO-CHEMETICS AB 10.10.78-SE-010558 (09.10.79-US-083194)

Q73 Q76 + Q51 (22.09.81) *DE2940-164 F01k-21

09.10.79 as 083194 (1376TM)

Organic material contg. water is converted into energy by heating the material in a steam vessel filled with steam at superatmospheric pressure. The vessel is heated by heat exchange with steam produced from combusting the fuel and the water driven from the material is re-cycled as steam and condensed on the material.

The water is mechanically removed from the material, and the fuel combusted to produce steam to both drive a turbine and to heat the steam in the vessel. (13pp)

CART/ ★ D15 75444 D/41 ★US 4290-379
Surface foam suppression on detergent contaminated lagoon - using powered barge to withdraw subsurface water and convert it to horizontal spray

CARTER F A 30.07.79-US-061916

P35 (22.09.81) A62c-27 C02c-01/08

30.06.79 as 061916 (295JB)

Foam on the surface of a detergent-contaminated body of water, is suppressed by using a powered barge. A horizontal C-shaped pipe, with an internal dia. of 8-12 inches is mounted above the gunnels of the barge at a height of 5-7 feet above the waterline. The pipe is arranged so that it encircles the bow and extends part way along the sides of the barge.

The only outlets from the pipe are a series of horizontal straight pipes 8-10 inches long and projecting from the pipe. A pump carried by the barge removes subsurface water which it directs to the pipe under sufficient pressure so that it is forced from the outlets simultaneously and is propelled 30-45 feet.

The barge may be used on any polluted water basin where foaming is a problem, e.g. waste from the wood pulping industry. The appts. obviates the use of chemical defoamants. (6pp)

FLEC- D15 34776 D/20 = US 4290-451
Automatic controller for domestic water softener - has simplified time switch linkage and modular brine valve body

FLECKENSTEIN L W 30.10.79-US-089450

Q66 (22.09.81) *EP-28-049 F16k-11/07

30.10.79 as 089450 (1358HM)

A domestic water softener has a timer control and associated softener valve connected with treatment and brine tanks. A rigidly mounted motor driving a piston is connected to a skipper wheel in the timer to initiate system operation. A unitary module incorporates a brine valve and injector and the piston operates in plastic spacer rings in the softener valve.

Each ring is of spaced upper and lower elements separated by pins integral with one element and heat-bonded to the other.

system operation, and the softener valve is of plastics with flexible inlet and outlet connections for rigid lines to prevent damage to the valve. (10pp)

WEAV/ ★ D15 75533 D/41 ★ US 4290-873
Electrolytic generator for chlorine gas mfr. - has ceramic salt cell enclosed in cylinder filled with water

WEAVER R L 15.05.80-US-150170 (22.01.79-US-005211)

E36 J03 X25 (22.09.81) C25b-09 C25b-11/03 C25b-15/08

15.05.80 as 150170 (+ 25.6.79-US-051444) (67DH)

Electrolytic gas generator comprises a ceramic salt cell contg. salt soln. enclosed within an outer cylinder filled with water. A cathode is located in the outer cylinder and an anode in the salt cell.

A housing above the outer cylinder contains the electrical circuitry for the generator. A DC flows between the anode and the cathode and generates a gas from the dissociated salt ions in the salt cell. Used for generating Cl₂ gas for purifying swimming pool water. (17pp)

CLEV- ★ D15 75539 D/41 ★ US 4290-884
Removal of BOD and nitrogen values from waste water - using interconnected nitrate cracking and denitrification channels surrounding aeration zone

CLEVEPAK CORP 18.08.80-US-179239 (25.08.78-US-936910)

(22.09.81) C02f-03/30

18.08.80 as 179239 (295KB)

An activated sludge treatment system removes pretreatment BOD and nitrogen values from waste water. It utilises a mixed liquor tank with a central clarifier. The mixed liquor tank is divided by partitions into an aeration zone where the mixed liquor biomass is held under endogenous oxygenation respiration conditions. Peripherally of the aeration zone is a nitrate cracking channel where the mixed liquor biomass is held under endogenous nitrate respiration conditions, and a denitrification channel where the biomass is retained under oxygen-limited denitrification conditions.

The nitrate cracking channel has a radial greater extent than the denitrification channel. Waste water is introduced to the nitrate cracking channel and a flow pattern is established by aerators positioned in the aeration zone.

Used partic. for the treatment of sewage effluent. (6pp)

KWAK/ ★ D15 75540 D/41 ★ US 4290-885
Waste water aerator with surface rotor - and submerged impeller drawing gas down conduit for entrainment and circulation

KWAK D 02.03.79-US-016890 (22.12.77-US-863068)

P64 (22.09.81) B28b-01/26 C02f-03/16

02.03.79 as 016890 (295KB)

A liq. is aerated using an appts. which includes a basin holding the liq. and a gas located in a space above the surface of the liq. A vertical shaft has a surface aeration device mounted on it being immersible in the liq. for circulating and aerating the liq. near its surface.

A flow guide tube is positioned beneath the surface aerator and extends from a point just above the basin floor to a level just below the surface aerator. The shaft extends down through the guide tube and has a pumping impeller mounted on it for creating downward flow of liq. in the guide tube. A gas conduit interconnects the gas space with a top inlet region of the guide tube. A restriction in the inlet region creates a low pressure to entrain the gas. The mixt. of gas and liq. then pass downwardly to the bottom of the basin.

Used for aerating waste water. The appts. efficiently introduces a gas into a liq. with good bottom mixing. (7pp)

BROW/ ★ D15 75541 D/41 ★ US 4290-887
Appts. for decanting surface liquid - has rotatable support pipe rigidly connected to floating weir header

BROWN A D 03.10.78-AU-006205

Q42 (22.09.81) E02b-15/04

02.10.79 as 081294 (295KB)

A liq. surface decanter comprises a rotatable support pipe positioned horizontally beneath the surface. Downcomer pipes extend between the support pipe and a header conduit which is oriented parallel with the support pipe. A buoyancy float is arranged to support the header.

Weir slots are longitudinally formed on the header conduit so that when the device is supported on the surface of the water, liq. flows through the slots, along the downcomer pipes and into the support pipe from where it may be removed. The weir slots have opposed leading and trailing edges arranged so that liq. first flows over the trailing edge and then over the leading edge as the header conduit is lowered relative to the support pipe by rotation about it.

Used for decanting a clear liq. from a settled effluent in an appts. where the liq. level may vary. (5pp)

BAUE/ ★ D15 75543 D/41 ★ US 4290-890
Sludge dewatering using buoyant vehicle - to break up surface crust thus exposing fresh sludge to drying atmosphere

BAUER W J 12.02.79-US-011122

(22.09.81) B01d-01 C02c-03

12.02.79 as 011122 (295NS)

Sludge is stored in a lagoon where the moisture content of the surface sludge is reduced by exposure to the atmosphere. Periodically at least the surface of the sludge is agitated to break and submerge the crust formed during drying. This exposes further wet sludge to the atmosphere. The agitation is performed by a buoyant vehicle which is propelled across the lagoon. The agitation and breaking of the crust is continued until a relative thick crust is formed over a body of wet sludge. Then the upper portion of the crust is removed while leaving the wet sludge.

The process may be used to dewater sewage sludge, also tailings from mineral ore treatment, sludge from scrubblings of flue gases, dredgings from navigation channels and other industrial sludges. Moisture is continuously removed by exposure of fresh sludge to the atmosphere. (12pp)

ACKE/ ★ D15 75544 D/41 ★ US 4290-891
Degradation of ammonia in waste water - by growing culture ATCC 31381 aerobically in the water

ACKERMAN R A 07.03.80-US-128207 (30.03.78-US-891975)

(D16) (22.09.81) C02f-03/34

07.03.80 as 128207 (1248JB)

Treatment of waste water to degrade NH₃ present is effected by adding to the water a culture ATCC 31381 and then allowing it to grow under aerobic conditions.

ATCC 31381 is used at 0.5-6 lbs./1 million galls. of water daily. Carbonaceous substances present in the waste water do not interfere. Cultures of ATCC 31381 are obtd. as described in US4218540 (Der. 64142C/36). (7pp)

EGYE- D15 72835 A/41 ★ US 4290-894
Purificn. of esp. oil polluted water - by upflow through bed of elastically deformable particles regenerated with raw water

EGYESULT MUSZAKI 06.06.78-BE-867883 (19.07.78-US-926122)

(22.09.81) *BE-867-883 + D01a-15/02

25.04.80 as 143771 (1376AT)

Contaminated raw water is cleaned by mixing with a flocculator in a reaction space at the bottom vessel, and forcing the water up through a filter into a clean water space. The filter traps the floccules which has enclosed the contaminants.

The filter can be regenerated by back-flushing. The water purity can be adjusted by altering the velocity of water entering the reaction space to adjust the compactness of the filter. (7pp)

IWAM/ D15 68007 C/39 = US 4290-895
Purification of waste water from ammoniacal nitrogen cpds. - by basifying and contact with alkali-conditioned silica gel

IWAMOTO T 06.03.79-JP-026327

(22.09.81) *DE3007-448 C02f-01/28

06.02.80 as 118947 (965TM)

Elimination of ammonia nitrogen from sewage comprises adding alkali to the sewage to convert ammonium ions to dissolved ammonia. The alkali treated is contacted with alkali-conditioned silica gel to adsorb the dissolved NH₃ onto the gel.

Pref. the alkali is added to the sewage until the sewage has pH over 10. Pref. the silica gel is packed into an adsorption vessel, and the alkali treated sewage is passed through it continually, at a linear velocity of 1-2 m/hr. Pref. the retention time of the alkali treated sewage in the vessel is more than 4 hrs.

Overnourishment of rivers, lakes and streams is prevented. The presence of NH₃ in water may cause corrosion. (11pp)

PASE D15 15497 U/11 = US 4290-898
Effluent treatment - by mechanical or chemico-mechanical techniques

PASSAVANT-WERKE 12.10.71-DE-U38603

(22.09.81) *BE-789-974 B01d-21/16

07.04.80 as 137785 C.i.p. 4142970 (+ 12.10.72, 27.11.72, 27.2.79-US-296775, 309905, 015722) (1376TM)

Pollutants are removed from liquids by destabilising and adding flocculants in successive compartments, passing the liq. into a first zone in which the flocculated solids settle out, and discharging the solids into a second zone in which they are thickened.

The solids fall into the second zone with a min. amt. of liq. Liq. flow conditions are optimised. (10pp)

SUGI/ D15 64456 C/37 = US 4290-979
Aeration system for effluent treatment plants - having recycle pump with air injection into suction and discharge via tangential outlets around immersed device also housing suction line

SUGIURA E 24.02.79-JP-021054

(22.09.81) *DE3006-935 B01f-03/04

22.02.80 as 123761 (1376HM)

Air is supplied to liq. in a tank using appts. which includes an air intake in a suction pipe feeding liq. from the tank to a pump which returns the liq. to the tank. The passage of the air intake connects the pipe to atmosphere and has a valve controlling its size in response to the discharge pressure of the pump. The end of the pump discharge pipe in the tank has injection ports. Large quantity of small air bubbles can be provided in liq. (7pp)

BAUM/ D15 82566 B/46 = US 4290-982
Submersible mat for air injection into bubble bath - comprises inexpensive plastic elements which split open for descaling passages

BAUMAN L (BAUM) 07.07.78-DE-829835

+ P28 P33 (22.09.81) *BE-877-562 + B01f-03/04

09.07.79 as 055899 (1376HM)

Bubbler mat consists of two opposing shells having complimentary grooves forming at least one air-supply canal. The abutting surfaces of the shells provide air discharge openings connected to the canal. An air-supply is connected to the canal. Pref. a gasket between the shells has discharge openings.

Expensive decalcification is avoided. (10pp)

AQUA-★ D15 75686 D/41 ★ WP 8102-661
Restaurant system holding live fish - with water circulation through biological filter with airlift between successive chambers

AQUACULTURE INT LTD 26.03.80-AU-002926

P14 (01.10.81) A01k-63/04 C02f-03/02 C02f-09

26.03.81 as AU0035 (1358AS) (E) US3973519 US3661262 US3487440 US3768652 US3747762 US3720319 US3835813 CA1056518 AU--19182 N(AU DK JP NO US) E(CH DE FR GB NL SE)

A system has a biological filter for recirculating water with multiple chambers each holding a separate filter segment and with an airlift for transferring water to a subsequent chamber. The last or penultimate segment is largely or wholly of activated carbon.

There are pref. at least four segments each containing particulates providing support for bacteria, and the biological filter is preceded by a mechanical primary filter. The arrangement provides a highly effective filter occupying minimal space and formed as an integral unit. The use of an airlift provides oxygenation of the water and promotes the growth of aerobic bacteria. (26pp)

MURP/★ D15 75695 D/41 ★ WP 8102-684
Appts. for sepg. solids from slurry - with perforated rotating drum contacted by resilient roll forcing liq. through perforations

MURPHY P M (FITZ/) 24.03.80-GB-009855

C04 P71 (01.10.81) B01d-33/10 B30d-09/20

20.03.81 as G00052 (295HM) (E) US3971720 DS--12960 N(AT AU CH DE DK FI HU JP LU NL NO RO SE SU US) E(AT CH DE FR LU NL SE)

Liq. effluent contg. solids is treated using a perforated drum mounted on bearings for rotation about its central axis. A roller engages the surface of the drum, and pref. both the drum and roller are connected to a drive.

The effluent is delivered to the surface of the drum upstream of the roller. A scraper engages the surface of the drum downstream of the roller to remove damp solids material from the drum. Separated liq. collects in a trough positioned beneath the drum. The appts. may be used to separate cow, pig or poultry manure into solids suitable for use as a fertiliser, and liq. contg. nitrates also suitable as a fertiliser. Blocking of the drum perforations is minimised. (22pp)

PERE/★ D16 D/41 ★ BR 8001-646
Small alcohol distn. plants
PEREIRA R N 19.03.80-BR-001646
(22.09.81) C12f-01

ESTE/★ D16 D/41 ★ BR 8001-707
Bull
DE CASTRO ESTEVES F 17.03.80-BR-001707
(22.09.81) C12f-01

TORB/★ D15 75707 D/41 ★ WP 8102-729
Desalination by sepg. water vapour from liq. - by hydrophobic membrane and condensing on cold vertical sheet

TORBERGER F 24.03.80-SE-002233

Q78 (01.10.81) B01d-03 B01d-13 C02f-01/04 F28f-03

10.03.81 as SE0076 (295AS) (E) GB1221673 GB1096677 GB1096678 N(AU BR CH DE DK GB JP KP NO SU US)

A desalination appts. includes an array of vertical plates comprising a first set of plates for a first liq. (I) interleaved with a second set for a second liq. (II). Hollow spacer plates are located between the plates of the first and second sets. (I) is at a higher temp. than (II).

Vapour released by (I) passes through a semi-permeable membrane in the spacer and condenses on a vertical sheet within the spacer. This sheet is impermeable and is cooled by contact with (II). Pref. the voids of the semi-permeable membrane are 2-5 micron and pref. the vertical condensation sheet is 0.1 mm polyethylene.

The apparatus desalinates a warm saline soln. by sepg. its vapour and condensing it on a sheet cooled by a cooler liq. (11pp)

NOVA-★ D15 75708 D/41 ★ WP 8102-730
Rotating biological contactor with body segments - mounted between spokes by adjustable holding clips

NORDISKA VATTENPROJ (HALL/) 05.05.80-WP-SE0129

(01.10.81) C02f-03/08

05.05.80 as SE0129 (295HM) (E) DS2554757 US4149972 US3777891 US3886074 US3904525 N(BR JP SU US) E(AT CH DE FR GB LU NL SE)

A rotating biological contactor includes filter-body segments which allow radial and peripheral water flow. The segments are pressed radially inwards and against each other by members which extend over the length of the segments. The segments are triangular and are arranged so that the outer periphery of the contactor has a saw-tooth configuration.

Pref. the segments do not extend fully to an axial rotating shaft but leave a space towards the centre of the rotor to improve water flow and oxygen exchange.

In the treatment of waste water. The contactors rotate so that they are partially immersed in the water and partially exposed to air. The contactor is easily assembled and disassembled and contains only easily fabricated parts. (9pp)

LAPP/★ D15 75709 D/41 ★ WP 8102-731
Treating thermally or chemically stratified water basin - by directing top oxygen-rich water to bottom of basin

LAPPALAINEN K M 28.03.80-FI-000990

(01.10.81) B01f-03/04 C02f-07

27.03.81 as FI0024 (295AT) (E) DE2350467 DE1928730 GB1326457 GB1534209 GB1239727 DE2507698 GB2013095 N(BR DK NO SU US) E(AT CH DE FR GB NL SE)

A thermally or chemically stratified water basin is treated by conducting top water into the subwater through flow passages. The top water mixes with, and horizontally displaces the subwater.

The top water usually contains more oxygen than the lower regions. This is mixed efficiently with the bottom water. Due to convection currents, this mixt. rises to begin with until it reaches a depth where the densities of the surrounding water and the mixt. are the same. The movement of the mixt. is then deflected to the horizontal. Thus oxygen is introduced into the whole depth of the water basin.

The procedure improves the ecological state of a thermally and/or chemically stratified water basin e.g. a lake with a low-oxygen depth zone. (15pp)

See Also

D13 GB 1599618	D16 J5 6109585	D16 J8 1039191
D16 J8 1039878	D22 EPG 005103	D22 GB 2072669

D16: FERMENTATION INDUSTRY

PERE/★ D16 D/41 ★ BR 8001-646
Small alcohol distn. plants
PEREIRA R N 19.03.80-BR-001646
(22.09.81) C12f-01

ESTE/★ D16 D/41 ★ BR 8001-707
Bull
DE CASTRO ESTEVES F 17.03.80-BR-001707
(22.09.81) C12f-01

RHOD/★ D16 73765 D/41 ★ CA 1107-980
Anaerobic digester with removable panels - to allow solar radiation to heat digesting contents to supplement heat from coils
RHODES D 12.10.78-CA-313220

Q74 (01.09.81) C05f-09/04 F24f-03/02
12.10.78 as 313220 (295NS)

Digester comprises a container with a lower portion for holding the fermenting slurry, and an upper portion for holding the gas produced.

A layer of heat absorptive material is wrapped around the lower and upper wall portions of the container. A plurality of abutting removable panels of insulating material enclose the layer of heat absorptive material around the lower wall portions. A layer of transparent material is wrapped around the panels and spaced outwardly from them. Some of the panels may be temporarily removed to permit solar radiation to heat an exposed portion of the heat absorptive material. The panel may be replaced when solar radiation diminishes enabling a combination of solar heat and heat obtained from secondary heating coils to be used to maintain the slurry temp. at a desired value.

The appts. may be used to produce a liquid fertilizer and methane from manure. (12pp)

AMHP ★ D16 73767 D/41 ★ CA 1108-065
Combined filtering and measuring device - including funnel, filter and overflow gutter, used in perfume brewing and distilling industries

AMERICAN HOME PROD CORP 20.03.78-CA-299259
J01 (D14) (01.09.81) B01d-23/08

20.03.78 as 299259 (295NS)

Device comprises a funnel including a body with a top rim and a dependent spout. A gutter surrounds the funnel to catch liquid spilling over the rim. A filter is positioned in the funnel and has a top edge which is sealed to the top rim of the funnel. Pref. the filter, funnel and gutter are circular in cross-section, the filter being a downwardly extending cone with its apex axially aligned with but spaced from the spout.

The device has many applications e.g. in the perfume, food, brewing, fermenting and distilling industries. (7pp)

FERM = ★ D16 73833 D/41 ★ DD -149-544
Starch hydrolysate(s) mfr. for alcohol fermentation - includes cominuting starch-contg. raw material, heat-treating and enzymatically hydrolysing

FERMENTATION PRODS 06.06.79-SU-766654 (28.02.79-SU-732602)

(D17) (15.07.81) C12c-07 C12g-03 C13k-01

28.02.80 as 219323 (+ 6.6.79-SU-766653) (200HM)

In the prepr. of starch-contg. raw material hydrolysates for alcoholic fermentation, the starch-contg. raw material is comminuted to particle size 1-3 mm and extruded at 150-300 deg. C under pressure 2 times 10 power 5 to 2 times 10 power 8 Pa. The heat-treated raw material is then mixed with an aq. enzyme soln. in ratio 1:3 to 1:4. Enzymatic hydrolysis is carried out in 3-60 min. by generating differently directed turbulent flows of the mixt. obtd. by means of a source for differently directed turbulent flows rotating at 1000-6000 r.p.m. under simultaneous change of flow direction. A plant for carrying out the process is claimed.

The process is used in spirits prodn., starch syrup mfr., brewing and sweets prodn. (22pp)

SARS ★ D16 73848 D/41 ★ DE 3005-605
Antigen extn. from cell suspension - by membrane and ultrafiltration stages

SARTORIUS GMBH 15.02.80-DE-005605

B04 (01.10.81) A61k-39/08 C07g-07 C12m-01/12 C12n-01/02 C12p-01

15.02.80 as 005605 (39AS)

Active agents are sepd. continuously from a cell suspension, esp. an instantly usable antigen for a vaccine in tropical regions, endangered by gasoedema and enterotoxaemia in cattle, caused by pathogenous clostridia, by membrane filtration. The active agent suspension, gained as the filtrate, is conc. in an ultrafiltration stage by stripping the carrier liq. The latter is free from the active agent and is recycled to the cell suspension.

Method is simple enough for use in a laboratory in development countries. (15pp)

MADU ★ D16 73953 D/41 ★ DE 3011-461
Use of Propionibacterium spp. in tumour therapy - in form of cell-wall or whole-cell preparations

MADAUS CO 25.03.80-DE-011461

B04 (01.10.81) A61k-35/74

25.03.80 as 011461 (367AS)

The use of Propionibacterium granulosum, P.avidum and/or P.acnes for prodn. of cell-wall or whole-cell preps. in the radio- or chemotherapy of tumours is claimed. Pref. strains are P. granulosum KP45 (DSM 1773) and P.avidum KP40 (DSM 1772). Preps. for i.p., i.v., or intratumoral admin. pref. contain 0.5-50 (esp. 5-7.5) mg/ml. of killed cells or cell walls suspended in phosphate-buffered saline (pH 7.2).

The preps. increase tolerance to radiation, promote tumour regression and increase resistance to bacterial infection. (29pp)

HETB ★ D16 74012 D/41 ★ DE 3015-069
Malt prodn. by treating grain with carbohydrate soln. - before drying, giving prod. of lower nitrosamine content (BE 28.9.81)
HEINEKEN TEC BEHEER NV 28.03.80-NL-001872
(01.10.81) C12c-01/02

18.04.80 as 015069 (1251NS)

Prod. comprises treating the germinating barley 0-48 hr. before kiln-drying with an aq. liq. which contains 0.1-1 (0.2-0.8)wt.% starch, its hydrolysis prods. or other carbohydrates (or their mixts.) based on the air-dried barley to be steeped, before it is treated with combustion gases. The combustion gases are (a) obtd. by direct combustion of low-sulphur content fuels, esp. natural gas, or (b) the barley is dried by indirectly heated air contg. nitrogen oxides. Also new is a method for brewing beer using this malt.

Pref. starch hydrolysis prods. are mono- or oligo-saccharides, esp. maltose and glucose, which may also contain sucrose, fructose, dextrin etc.

The malt, and beer produced from it, has very low nitrosamine content. (9pp)

TAKA- ★ D16 74018 D/41 ★ DE 3039-874
Multistage continuous reactor - with biconical units and central ascending liq. spiral (BR 8.9.81)

TAKARA SHUZO CO(TOKR- KANS- KANS-) 08.07.80-JP-093502 (04.03.80-JP-027724)

J04 (01.10.81) B01j-08 B01j-19/24 C12m-01/04 C12p-07/14

22.10.80 as 039874 (39HM)

A continuous reactor, for use in fermentation processes or reactions where microorganisms or catalyst particles, suspended in a liquid, are in contact with a gaseous phase, e.g. in the production of ethanol from disaccharides, etc., consists of at least two reactor units.

Each has an open top cone, a short cylindrical centre and an inverted bottom cone with a smaller cone angle. The lowest unit has a gas distributor at the neck of the bottom cone and a tangential liquid inlet just above it. (18pp)

SCHD D16 47378 B/26 = EP G002-535
21-Hydroxy-20-methyl-pregnane derivs. prodn. - by fermenting sterol cpd. with Mycobacterium culture in presence of boron cpd.

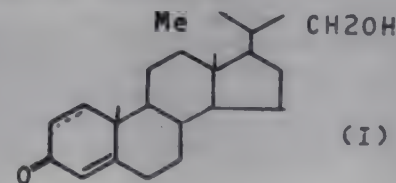
SCHERING AG 19.12.77-DE-757156

B01 (30.09.81) *DE2757-156 C07j-09 C12p-33/06

15.12.78 as 101711 (047BZ) (G) US3684657 US3759791 2.Jnl.Ref E(BE CH DE FR GB IT LU NL SE)

Prod. of 20-methylpregnane-21-ol derivs. of formula I comprises propagation of Mycobacterium spec. NRRL B-3683 or B-3805 or their variants or mutants in the presence of the usual nutrients, a zoo- or phytosterol, and also borate ions or an organic B cpd. (0.1-0.5 wt%), at pH 6-8.

Pref. precursors are 3-ones or 3-ols with side chains of formula CHMeCH₂CH₂C(R)Me₂ (where R is H, Me or Et), opt. with double bonds at positions 4(5), 5(6) and/or 21(22). Pref. additives are ortho-, meta- and polyboric acids or their alkali metal or alkaline earth salts, or (PhO)₃B. Pref. the borate is added 10-30 hr after the fermentation has started. (7pp)



FARB D16 33050 C/19 = EP G010-243
Modified biomass prodn. - by condensing with carbonyl cpd. and reacting with aminoplast or phenoplast former

BAYER AG 13.10.78-DE-844641

A97 C03 + P43 (A21 A60 D13) (30.09.81) *EP--10-243 B01j-31/02 C02f-11 C08k-11 + B09b-03

08.10.79 as 103832 (047JB) (G) DE2000133 DE2324134 DE2523483 FR2171108 FR2223078 FR2265758 FR2398700 US3073693 US3226318 US3655395 US3929630 US3935069 US4021368 US4067821 E(BE CH DE FR GB IT NL)

Processing of biomasses of diverse nature comprises treatment with carbonyl cpds., thiocarbonyl cpds. and/or carbonyl cpds. in equilibrium with lower non-condensed N-alkylols in an aq. medium opt. with catalysts and/or additives. This is followed by condensation with suitable reactants (opt. in the presence of catalysts and/or additives and/or chain regulators) to form aminoplast (opt. contg. N-alkylol groups) or phenoplasts, at 0-200 deg. (pref. at about 20 deg.) and opt. at reduced or elevated pressure. Opt. undesirable components present are removed.

Pref. carbonyl cpds. are HCHO, crotonaldehyde and isobutyraldehyde. Pref. aminoplast components are urea, methylolurea, dimethylolurea, and crude, modified and/or stabilised azulmic acids. Pref. catalysts are H₂SO₄ and H₃PO₄. Modified biomasses contg. cell components and/or other reactive

materials can be used. The prods. are used as reactive fillers and/or flame-proofing agents in plastics and also as catalysts and/or catalyst supports. (60pp)

MILE ★ D16 74066 D/41 ★EP --36-543
Test strip for semi-quantitative glucose determination in urine - treated with ethylcellulose soln. to inhibit window-framing
MILES LABORATORIES INC 20.03.80-US-132281
B04 J04 (30.09.81) C12q-01/54

09.03.81 as 101698 (1251AS) (E) US3814668 US3298789 FR2215140 US3001915 US3092465 E(DE GB)

A test device for semi-quantitative determination of glucose in urine is made by (a) impregnating a porous carrier with a soln. of glucose oxidase, peroxidative cpd. and water-soluble iodide, (b) drying, (c) saturating with a soln. of 1.75-4.55g ethyl cellulose (I) per 100 ml solvent, (d) drying to leave a residue of (I), then (e) cutting into test strips. Pref. (I) is dissolved in benzene, toluene or esp. a 20.80 ethanol-toluene mixt. at 2.35-3.35g per 100 ml.

Test strips which have been treated with a soln. of 1.75-4.55g (I) per 100 ml solvents are themselves claimed.

The semi-permeable layer of (I) deposited prevents 'window framing' (i.e. development of isolated wet spots at the margin of the strip) without slowing down the reaction. Using (I) solns. of the specified concn., it is no longer necessary to control the ethoxy gp. content or viscosity so that a wider range of (I) types can be used. (16pp)

CORP ★ D16 74130 D/41 ★EP --36-662
Glucose isomerase immobilised on porous phenolic resin - used to convert starch hydrolysate to fructose
CPC INTERNATIONAL INC 24.03.80-US-132728
A96 B04 (30.09.81) C12n-11/08 C12p-19/24

23.03.81 as 102183 (1251HM) (E) No-Citns.
Immobilised glucose isomerase (A) derived from *Streptomyces olivochromogenes* ATCC 21114, 21713, 21714 or 21715 (or mutants) on a porous phenolic resin (B) is new (B) has total surface area 40-200 sq.m per g, as pores over 30 angstrom, with at least 30% of the pores 30-250 angstroms, and water-swelling capacity below 10 vol.%. Binding efficiency is at least 90% at enzyme loading 500 units per ml, or at least 80% at 100 units per ml, and enzyme half-life during isomerisation is at least 10 days.

(B) is esp. an anion-exchange type resin, and 50% of pores in the 30-250 angstrom range have radius 50-150 angstrom, esp. at least 20% in the 70-80 angstrom range. Also new is isomerisation of glucose using these immobilised enzymes.

The enzymes are used for conversion of starch hydrolysate to fructose, in continuous column systems. They allow high operational flow rates, long column life and low enzyme consumption. (15pp)

ICIL ★ D16 74154 D/41 ★EP --36-699
Extracting poly beta-hydroxybutyric acid from bacterial cells - using dichloro-ethane at low temp., without intermediate drying
IMPERIAL CHEM INDS LTD 00.00.81-EP-200352 (21.02.79-GB-006076)

A11 G02 (30.09.81) C08g-63/72 C12p-07/62
00.00.81 as 200352 (1251AT) (E) EP--14490 EP--15669 1.Jnl.Ref E(BE CH DE FR GB IT LU NL)

Extraction of poly-beta-hydroxybutyric acid (I) from bacterial cells comprises treating with 1,2-dichloroethane (II) at below 40 deg.C, then sepg. the (I)-contg. solvent phase. Opt. the cells are disrupted before extraction, and the solvent is applied to an aq. suspension of cells, esp. adjusted to with 0.5 pH units of the isoelectric points.

Pref. (II) is 10-100 times by wt. of the cells, and (I) can be sepd. from the extract by pptn. into a liq. in which (I) is insoluble but with which (II) is miscible.

(I) is useful as a plastic material for moulding, and solns. of (I) can be used directly for solvent casting of e.g. coatings, films and fibres. (I) can now be extracted directly from aq. cell suspensions, and the use of low extraction temp. minimises simultaneous removal of lipid and pigment. (17pp)

PFIZ ★ D16 74174 D/41 ★EP --36-737
Extracting lactase from yeast cells - by treating with alcohol or ketone, then with aq. buffer, opt. followed by protease deactivation
PFIZER INC 24.03.80-US-133036
(30.09.81) C12n-09/38

16.03.81 as 301094 (1251AS) (E) No-Citns. E(AT BE CH DE FR GB IT LU NL SE)

Lactase (I) is released from yeast cells by first treating with 20-95 wt.%, on total cell wt., of a 1-4C alcohol or di(1-4C)alkyl ketone at 5-35 deg.C. The cells are then treated with an aq. soln. of pH 5.5-8 (6.4-7), at the same temp., and the cells then removed from the (I) contg. soln. Pref. cells are *Kluyveromyces*, *Candida* and *Torula* species, and both treatments are esp. at 20-30 deg.C.

The first stage is pref. with 60-90 wt.% ethanol, and the aq. soln. of (I) recovered is pref. heated with 30-90 (30-60) wt.% on the soln.

of glycerol at 35-60 (45-55) deg.C and pH 5.5-8 (6.4-7) until protease content is reduced.

(I) converts lactose to glucose and galactose and is made e.g. in cheese making to shorten ripening times, or administered to persons intolerant of lactose. It is now recovered relatively quickly with good yields and purity and without interference from co-extracted protease. (7pp)

GENE ★ D16 74186 D/41 ★EP --36-776
Prodn. of polypeptide(s) from recombinant bacteria - by using plasmid(ic) expression vehicle obtd. by ligation of DNA fragments
GENENTECH INC 24.03.80-US-133296

B04 (30.09.81) C12n-15
23.03.81 as 301227 (1248JB) (E) No-Citns. E(AT BE CH DE FR GB IT LU NL SE)

Creation of an expression plasmid for expression of a heterologous gene is effected by the simultaneous ligation, in phase, of (a) a first linear double-stranded DNA fragment contg. a replicon and a gene that expresses a selectable characteristic when placed under the direction of a bacterial promoter, the fragment lacking any such promoter, (b) a second linear double-stranded DNA fragment comprising the heterologous gene, and (c) a third double-stranded DNA fragment comprising a bacterial promoter.

The ligatable ends of the fragments are configured such that on ligation to form a replicable plasmid both the gene for the selectable characteristic and the heterologous gene come under the direction of the promoter, permitting use of the selectable characteristic in selection of transformant bacteria colonies capable of expressing the heterologous gene.

Prodn. of a polypeptide prod. by the expression in bacteria of a structural gene coding for it involves providing a bacterial inoculant transformed with a defined vehicle. Then the inoculant is placed in a fermentation vessel and grown in a nutrient medium contg. added tryptophan to regress the promoter-operator system, and then depriving the bacteria of the tryptophan additive to de-repress the system and to occasion the expression of the prod. for which the structural gene codes.

This procedure can be used in the high-yield prodn. of polypeptides such as human growth hormone, human proinsulin, somatostatin, thymosin alpha 1, the A chain or B chain of human insulin. Other techniques are described which are useful for prodn. of intermediates etc. (5pp)

SSCM ★ D16 74241 D/41 ★FR 2476-969
Digester plant to generate methane from liq. manure - comprises reception pit high shear pump and fermenting vessel
SSCM SOC STEPHANOS 29.02.80-FR-004635
P11 (04.09.81) A01c-03/02

29.02.80 as 004635 (448RH)
A digester for anaerobic fermentation of liq. manure, etc. The digester is of the type which comprises a fermentation vessel, means for feeding fresh manure into the vessel and a system of discharging the manure after fermentation. The vessel is fed with fresh manure from a separate reception pit or tank. The fresh manure is passed through a chopping mechanism and piped into the fermentation vessel.

The installation pref. comprises a high shear pump which serves as chopping mechanism. Pump suction and delivery are both connected to the fresh manure pit. The pump outlet is pref. branched via two valves, one recycling the manure to the pit and the other transferring manure to the fermentation vessel. The valves are linked so that one opens as the other closes and vice versa.

Used for anaerobic fermentation of liq. manure, partic. of pigs, to produce methane and provide an inoffensive, fermented by-prod. for use as agricultural fertiliser. The installation provides industrial scale prodn. of methane with extreme reliability of operation. (12pp)

FISO ★ D16 74277 D/41 ★GB 1593-412
Herbicidal suspension of trietazine and simazine - contg. xanthomonas hydrophilic colloid and an anionic surfactant
FISONS LTD 17.06.77-GB-025381
C02 (15.07.81) A01n-25/04

24.05.78 as ----- (916BZ)
Herbicidal concentrate consists of an aq. suspension of trietazine and sumazine (total of both - 100 to 700 g/l), containing a *Xanthomonas hydrophilic* colloid and one or more anionic surface active agents.

The trietazine and sumazine are of less than 10 microns Stokes equivalent diameter and present in a wt. ratio of 99:1 to 1:99. The *Xanthomonas hydrophilic* colloid is present at the rate of 0.05 to 5 g/l and gives the composition a viscosity of 1000 to 20,000 cps as measured by a Brookfield viscometer. Disclosed surfactants include a wide range of polyoxyethylene, phosphate, sulphate and sulphonate cpds.

The composition is stable, inexpensive, easy to dilute and

HETB D16 59066 A/33 = GB 1599-542
Beer carbon dioxide content measurement - using temperature-sensitive unit with electrical characteristics fluctuating to Henry constant (NL 8.8.78)

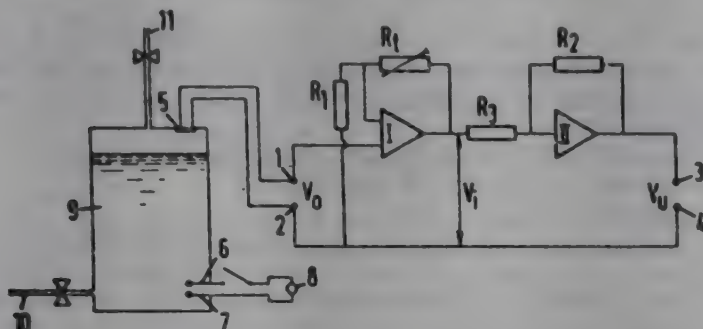
HEINEKEN TEC BEHEER NV 04.02.77-NL-001200

J04 S03 S05 (07.10.81) *DE2804-350 + G01n-25

02.02.78 as 004348 (1358BZ)

The CO₂ content of beer is measured by separating a sample in a vessel and using a transducer (5) to measure the pressure of the CO₂ atmos. Beer temp. is measured by a resistor (Rt) with temp.-responsive characteristics matching the temp. variations of the Henry constant.

The transducer signal is passed to a circuit with gain dependent on the resistor, circuit output indicating CO₂ content. The resistor is pref. a thermistor with resistance linearly related to the constant, and the transducer output is applied to a two-stage amplifier with gain controlled by the resistor. The method simplifies measurement. The appts. is claimed. (6pp)



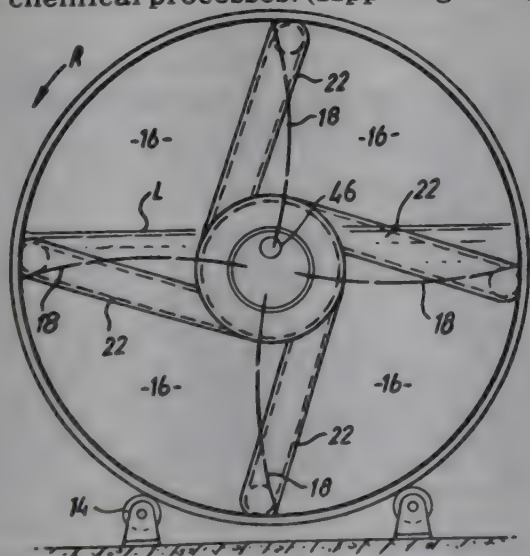
HANC/ ★ D16 74331 D/41 ★ GB 2072-647
Biological reactor drum filled with medium - is divided into four compartments with liq. flow between compartments on drum rotation

HANCOCK M C 04.08.80-GB-025382 (02.08.79-GB-026991)
(07.10.81) C02f-03/08

40.08.80 as 025382 (295DH)

Biological reactor includes a container packed with a medium for assisting the reaction. The container is divided by baffles which cause the liquid under treatment to intermittently cover portions of the medium. The medium not covered is exposed to gas within the chamber. Gas flow is prevented between one liquid covered portion of the medium and another. The container has separate liquid and gas inlets and separate gas and liquid outlets.

The appts. is for the aerobic or anaerobic treatment of organic waste waters but it may also be used as a reactor for other biological or chemical processes. (11pp Dwg.No.3)



MULL/ ★ D16 74336 D/41 ★ GB 2072-657
Prodn. of hulupone(s) from lupulone(s) - by oxidation and treatment with carbon dioxide under pressure

MULLER A 27.03.80-DE-011968
(07.10.81) C07c-49/59 C12c-03

19.05.80 as 016449 (955RS)

Hop prods. contg. alpha acids, and ground, crushed or ruptured lupulin seeds or hop extracts are mixed with adsorbents, and treated with supercritical carbon dioxide in a closed vessel (sic). Carbon dioxide leaving the vessel is subjected to reduced pressure to ppt. a base extract of hop oils and lupulones. The lupulones are mixed with adsorbents and converted to hulupones by oxidn. and treatment with carbon dioxide under press., and are purified to remove undesirable substances.

The process enables useless lupulones to be converted into bitter tasting hulupones useful for flavouring beer in good yields. (4pp)

NIOC ★ D16 74342 D/41 ★ GB 2072-670
Coprotoporphyrin and uroporphyrin sepn. and recovery - from culture broth contg. both

NIPPON OIL KK 25.03.80-JP-036882

B02 (07.10.81) C07d-209 C07d-257 C07d-487/22

20.03.81 as 008835 (476BJ)

Coprotoporphyrin (I) and uroporphyrin (II) are separated and recovered from a culture broth contg. them by adjusting the broth pH to 2.5-4, collecting the ppt. contg. (I) and (II) and preparing an aq. alkaline soln. of it, adjusting the pH of the soln. to above 4 but not over 6, collecting the ppt. contg. (I) and adjusting the pH of the remaining soln. to 1-4 and collecting the solid ppt. contg. (II).

Porphyrins have interesting physiological activity in regulating organs e.g. in improving liver function. Known methods for recovery of (I) and (II) are complex and not very efficient, and cannot be used for recovering them from a soln. contg. both, but the present method is easy to operate and gives a good separation. (5pp)

MATU ★ D16 74441 D/41 ★ J5 6106-148
Enzyme electrode mfr. - by attaching dehydrogenase and its coenzyme to electrical charge collector with a semipermeable membrane

MATSUSHITA ELEC IND KK 29.01.80-JP-009849

J03 (24.08.81) C12n-11 G01n-27/40

29.01.80 as 009849 (50WB)

Enzyme electrode comprises water-soluble covalent bound dehydrogenase and its coenzyme (e.g. nicotinamide adenine dinucleotide or nicotinamide adenine dinucleotide phosphoric acid) held and fixes onto the surface of an electricity-collecting material (e.g. graphite disc) by a semipermeable membrane which does not permeate the covalent bound material but permeates substrate of the dehydrogenase.

Prodn. of the electrode comprises (a) forming a layer of water-soluble covalent bound material of dehydrogenase and its coenzyme on the surface of electricity-collecting material and (b) applying a soln. of a semipermeable membrane-forming component onto the layer of the bound material and drying it to form semipermeable membrane layer.

The time required to attain a stationary current value is short, the increase in electric current is large, and analytical sensitivity is increased. The enzyme electrode is useful for quickly electrochemically determining the concn. of enzyme substrate. (5pp)

KIKK ★ D16 74475 D/41 ★ J5 6106-585
Addn. of hexenal and/or hexanol to fruit wine - at beginning or during the fermentation of the fruit, to give mellow fruit flavour

KIKKOMAN CORP 28.01.80-JP-007772

(24.08.81) C12g-01

28.01.80 as 007772 (5BZ)

6C Aldehyde and/or 6C alcohol are added during prepn. of fruit wine. A mellow fragrant fruit wine which is rich in fresh fruit flavour and free of undesirable oxidised smell and burnt smell, can be prepd. As 6C aldehyde at least one kind of aldehyde selected from t-2-hexenal, n-hexenal, t-3-hexenal and c-3-hexenal, can be used and as 6C alcohol at least one kind of alcohol selected from n-hexanol, t-2-hexenol, t-3-hexenol and c-3-hexenol, can be used. 6C aldehyde and/or 6C alcohol are added at the treating process for starting fruits or at the fermenting process for fruit 'moromi' at a concn. of 2-30 ppm pref. 8-15 ppm on fruit juice. (5pp)

CONB. ★ D16 74476 D/41 ★ J5 6106-588
Biological culture medium of low methoxylated pectin prepn. - from peptone, milk sugar eosine Y, methylene blue, low methoxylates pectin and water, dispersed in agar sterilised and ph adjusted

CONBILON INC 23.01.80-JP-006733

(24.08.81) C12m-01/22 C12n-01

23.01.80 as 006733 (15BZ)

A process for producing the biological culturing medium contg. low methoxylated pectin is claimed in which 5 gram of peptone is mixed with 5 gram of milk sugar, 0.5 gram of Eosine Y, 0.065 gram of Methylene Blue, 25 gram of low methoxylated pectin and one litre of deionised water in the presence of maternal material of agar-agar. The resulting mixt. is sterilised and its pH is adjusted with sodium phosphate to 7.1 and it is gelled in a Petri dish. The biological culturing medium is used for culturing yeast, bacteria, microorganism and fungus. (10pp)

ONOH ★ D16 74477 D/41 ★ J5 6106-589
Glutathione-reductase prepn. - by culturing proteus sp. producing glutathione reductase and refining crude enzyme by absorption chromatograph

ONO PHARMACEUTICAL KK 29.01.80-JP-008363

B04 (24.08.81) C12n-09/02 C12r-01/37

29.01.80 as 008363 (5AT)

The method comprises culturing the bacterial strain proteus which can produce glutathione-reductase (abbr. GTR), in common culture medium and recovering GTR from the bacterial body.

Examples of applicable bacterial strains are Proteus inconstans IFO 12930, P. vulgaris IFO 3045, P. mirabilis IFO 3849, etc. The culture is practiced at ca. 30 deg. C at pH 7-8 aerobically for 15-30 hrs. GTR accumulated in the bacterial body can be extracted by conventional means and crude extract obtd. is pptd. fractionally. The crude enzyme is further refined by absorption chromatography using 2',5'-ADP-Cephalose (RTM).

GTR catalyses the reaction of oxidised to reduced glutathione in the presence of NADPH and can be used for determining oxidised-form glutathione and NADPH in serum, etc. (5pp)

SHIO ★ D16 74478 D/41 ★ J5 6106-590
Galactose-oxidase fermentative prodn. - using Beltraniella protoricensis microorganisms

SHIONOGI KK 23.01.80-JP-007147

(24.08.81) C12n-09/04 C12r-01/64

23.01.80 as 007147 (5WB)

Method involves culturing a galactose-oxidase-producing Beltraniella microbial strain (MFC 0228) and recovering galactose-oxidase (GLO) from the cultured liquid. MFC-0228 produces GLO in amts. several times as high as conventional strains.

GLO catalyses the oxidn. of D-galactose to D-galactohexodialdose and can be used for detecting and determining galactose and galactose derivs. MFC-0228 is Beltraniella protoricensis (FERM- P5190). Cultivation is at 22-30 deg.C esp. ca. 25 deg.C aerobically by conventional method. GLO is recovered in high yield by column chromatography using ion exchange resin or fractional precipitating method using ammonium sulphate. (6pp)

UEDA- ★ D16 74479 D/41 ★ J5 6106-592
Refining vegetable beta-amylase - by contacting the amylase soln. with synthetic aluminium silicate adsorbent and eluting with phosphate buffer

UEDA KAGAKU KOG KK 24.01.80-JP-007483

B04 (24.08.81) C12n-09/26

24.01.80 as 007483 (5RP)

The method is effected by (a) contacting the soln. contg. beta-amylase from vegetables with synthetic aluminium silicate for adsorbing beta-amylase and (b) eluting beta-amylase with phosphate buffer opt. contg. common salt.

Synthetic aluminium silicate can be prepd. by adding soluble aluminium salt in aq. Na silicate soln. and washing and firing obtd. ppte. As the eluant phosphate buffer of pH 6.0-7.0 or the phosphate buffer contg. common salt 0.01-1 mol. pref. 0.05-0.2 mol. can be used.

Beta-amylase can be adsorbed on synthetic aluminium silicate efficiently and the elution can be practiced with only 1/10 amt. of eluant as that of crude enzyme soln. Thus obtd. enzyme soln. can be easily made germ-free by filtering using Chamberland filter. (6pp)

MITN ★ D16 74481 D/41 ★ J5 6106-597
Coenzyme/Q10 prodn. by e.g. culturing Corynebacterium - useful as pharmaceutical for treating heart failure, pulmonary emphysema, etc. or as additive for feed

MITSUBISHI GAS CHEM IND 23.01.80-JP-006622

B05 (24.08.81) C12p-07/66 C12r-01/15

23.01.80 as 006622 (33RP)

Prodn. of coenzyme Q10 comprises cultivating a coenzyme Q10-producing strain of Corynebacterium or Xanthomobacter and recovering coenzyme Q10 from the mycelium.

The cultivation is effected in a medium comprising C sources, N sources, inorganic cpds., vitamins and/or amino acids at 20-45 deg. C, pref. 25-38 deg. C, within a pH range of 5-10, pref. 6.0-7.5. It is pref. to carry out the cultivation under aerobic conditions. Examples of the microorganisms used are Corynebacterium (Xanthomonas) autotrophicum DSM-431 and DSM-432. Coenzyme Q10 can be separated by extraction of the mycelium with methanol, ethanol, acetone, ethyl ether or a mixed solvent at room temp. or under heating at 40-90 deg. C.

Coenzyme Q10 is used as pharmaceuticals for treating heart failure, myasthenia gravis, pulmonary emphysema, aplastic anemia or alopecia areata or as additives to feed. The process gives coenzyme Q10 on large scale with economical cost. (4pp)

★ D16 74482 D/41 ★ J5 6106-598
Prepn. of L-arginine - by culturing Escherichia strain
JINOMOTO KK 30.01.80-JP-009760
B05 E16 (24.08.81) C12p-13/10 C12r-01/18
30.01.80 as 009760 (5AS)
Process comprises culturing an Escherichia resistant to alpha-methylmethionine (MM), alpha-fluorophenylalanine (PFP), D-arginine (D-arg), argininehydroxamic acid (AHX), S-(2-aminoethyl)-cysteine (AEC), alpha-methylserine (MS), beta-2-thienylalanine (TA) or sulphaguanidine (SUG) and recovering L-arginine accumulated in the cultured medium.
Suitable strains include Escherichia coli AJ11531(FERM-P5377) (MMr, arg R-), AJ11532(FERM-P5378)(PFPr, arg R-), AJ11533(FERM-P5379)(D-arg-, arg R-), AJ11534(FERM-P5380)(AHXr, arg R-), AJ11535(FERM-P5381)(AECr, arg R-), AJ11536(FERM-P5382) (MSr), AJ11537(FERM-P5383)(TAr, tyr-) and AJ11538(FERM-P5384) (SUGr, tyr-). Affixed r means the resistance. arg R-inactivated arg R gene. tyr-requiring tyrosine. (4pp)

WAKP ★ D16 74483 D/41 ★ J5 6106-600
Determin. of hydrogen peroxide - by colorimetric method using oxidn.-condensate of aniline and 5-amino-salicylic acid with hydrogen peroxide

WAKO PURE CHEM IND KK 25.01.80-JP-007471

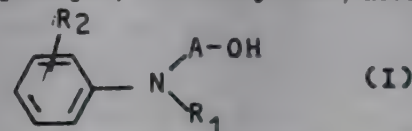
B04 (24.08.81) C12q-01/26 G01n-33/50

25.01.80 as 007471 (5RH)

Method comprises oxidn.-condensing N-hydroxy-alkylaniline cpd. (I) and 5-aminosalicylic acid with hydrogen peroxide in the presence of hydrogen peroxide-activator (e.g. peroxidase) and measuring the colour which the oxidn.-condensate reveals under alkaline condition. R1 is lower alkyl or hydroxy lower alkyl. R2 is hydrogen or lower alkyl. A is lower alkylene.

Formed colour is blue and has max. absorption at 630-640 nm and hydrogen peroxide in the samples taken from living body can be determined without any effects from colour originating from body liq. such as blood. The reagents are water soluble and stable. Thus, the method can be adapted for determining hydrogen peroxide, the activity of the enzyme which can produce hydrogen peroxide and the substance which forms hydrogen peroxide by the reaction with oxidising enzyme.

The oxidn.-condensing reaction proceeds at pH 5-9 and after the oxidising-condensn. the reaction mixt. is made alkaline with NaOH, etc. Method can be adapted for determining cholesterol, triglyceride, phospholipid, free fatty acid, uric acid, etc. in body liq. (5pp)



DAUC ★ D16 74700 D/41 ★ J5 6108-712
Activating agent for lecithin cholesterol acyl transferase - comprises pantethine and lecithin

DAIICHI SEIYAKU KK 31.01.80-JP-010737

B04 (28.08.81) A61k-31/68

31.01.80 as 010737 (5BZ)

Activating agent for lecithin-cholesterol-acyl transferase comprises pantethine and lecithin as active ingredients. The agent can also be used as drug for curing diabetes, arteriosclerosis, etc. by virtue of the activating ability.

The effect can be demonstrated when 0.1 g/ml of aq. soln. of pantethine is mixed with 10% aq. xylitol soln. and is injected into the patient. Patients suffering from kidney trouble or diabetes are injected with 1000 mg of pantethine. Before applicn. of the medicine and two hours after the applicn., the LCAT activity (lecithin-cholesterol-acyl transferase activity) is examined. Also, patients of kidney trouble is injected with pantethine 1000 mg and orally administered with 5 g of lecithin. Before and after application of the medicines, the LCAT activity is examined.

The results show that both patients suffering from kidney or diabetes show improved LCAT activity after administration of pantethine, but an even greater improvement when pantethine and lecithin were used together. (2pp)

SANW ★ D16 74702 D/41 ★ J5 6108-716
Antiviral compsn. for liq. preparations - contains dead cell bodies of microorganisms of Pneumococcus, Streptococcus, Pseudomonas etc.

SANWA KAGAKU KENKYUSHO 30.01.80-JP-008730

B04 (28.08.81) A61k-35/74

30.01.80 as 008730 (22RP)

Anti viral compsn. contains dead cell bodies of pneumococcus, streptococcus, staphylococcus, catalnyceria, pseudomonas, pneumobacillus and influenza. These dead microorganisms are used in amt. as 50 x 10 power 6, 40 x 10 power 6, 500 x 10 power 6, 60 x 10 power 6, 250 x 10 power 6, 40 x 10 power 6, and 40 x 10 power 6

cells, respectively, per 1 ml of the liq. prepn. In the prepn. there is also incorporated anti-septic such as phenol in an amt. of 4 mg per mol of the liq. prepn.

These microorganisms are cultivated in a culture medium in conventional manner. Then the cell bodies are recovered and killed with the use of 38% formalin in an amt. of 0.4 v/v% and the resultant is subjected to centrifugation and the residue is recovered, followed by washing. The resultant is then suspended in physiological saline. These saline solns. are mixed with one another and then phenol is added, and the mixt. is filled in ampoule, followed by sealing. (3pp)

EISA ★ D16 74703 D/41 ★ J5 6108-717
Drugs for preventing or treating pullorum or diarrhoea - of fowls and domestic animals, contain prod. obtd. by decomposing cell wall of *Bifido:bacterium* species

EISAI KK 04.02.80-JP-011423

B04 C03 (28.08.81) A61k-35/74

04.02.80 as 011423 (52AS)

Drugs contg. as effective ingredient prod. prepd. by decomposing the cell wall of bacteria of *Bifidobacterium* with an enzyme (specific: lysozyme and/or protease). Strain is esp. *bifidobacterium thermophilus* P2-91 (ATCC 25525) distributed in the digestive organs or vagina of humans or animals and isolated from their faeces.

The drugs are applicable to poultry and domestic animals, (swine, cattle, horse, goat, sheep) to prevent or cure pullorum or diarrhoea. (4pp)

RIKA ★ D16 74704 D/41 ★ J5 6108-719
Antibiotic antlermycin B and C - obtd. by culturing *Micromonospora* species on culture medium

RIKAGAKU KENKYUSHO 31.01.80-JP-010209

B04 (28.08.81) A61k-35/74 C07c-11 C12p-01/04

31.01.80 as 010209 (52KB)

Antlermycin B has the following properties: (i) elemental analysis: C 60.60%, H 7.24%, N 2.18%; (ii) mol. wt. (titration equiv.): 1260; (iii) m.pt. 210-214 deg.C; (iv) specific optical rotation: (v) specific UV spectrum; (vi) specific IR spectrum; (vii) solubility: very soluble in MeOH, EtOH, soluble in acetone, EtOAc, slightly soluble in Et₂O, CHCl₃, sparingly soluble in petroleum ether, water; (viii) colour reaction positive to c.H₂SO₄ (blue), KMnO₄, HIO₄-benzidine, 2,4-dinitrophenylhydrazine, o-dianisidine, and FeCl₃; pseudo positive to ninhydrin.

Gram positive bacteria including *Bacillus* (B. subtilis) and *Micrococcus*. Antlermycin C is also claimed. (10pp)

NDEN ★ D16 74925 D/41 ★ J5 6109-585
Crosslinking method for microbial membrane - by treating microbes dispersed in collagen membrane with glutaraldehyde soln. in phosphate buffer

NISSHIN ELECTRICAL KK 01.02.80-JP-011655

J04 (D15) (31.08.81) C12n-11/06 G01n-27/40

01.02.80 as 011655 (5RH)

Method comprises crosslinking microbial membrane which is prepd. by dispersing microbes in collagen membrane, with the glutaraldehyde soln. obtd. by dissolving glutaraldehyde 0.08-0.12% in 0.1M phosphate buffer soln., at 19-30 deg. C for 45-75 secs. and washing it with 0.1M phosphate buffer soln.

The collagen microbial membrane can be strengthened sufficiently while maintaining the activity of the microorganisms. Thus treated microbial membrane can be used in combination with dissolved oxygen electrode to prepare the microbial electrode which can be used for determining BOD and for judging the toxicity of soln. and the possibility of the microbial treatment of soln. (2pp)

KYOW ★ D16 74926 D/41 ★ J5 6109-587
Genetically recombined *Corynebacterium* microbial strain prepn. - by forming protoplasts from cultured bacterial cells, stabilising, effecting plasmogamy

KYOWA HAKKO KOGYO KK 06.02.80-JP-013403

B04 (31.08.81) C12n-15 C12r-01/15

06.02.80 as 013403 (5RP)

The method is effected by (a) forming protoplasts from cultured bacterial cells and stabilising then, (b) effecting plasmogamy between protoplasts, (c) reclaiming blended protoplasts to normal cells and (d) selecting thus obtd. recombined strains.

The formation of protoplast is practiced by culturing the bacterial strain under the condition that the cells become sensitive to lysozyme and treating the cells with lysozyme. For making the cells sensitive to lysozyme, various inhibitors for the formation of cellular membrane (e.g. penicillin) can be used. The plasmogamy is practiced by mixing the protoplasts which are derived from different parent strains and treating the mixt. with polyethyleneglycol. Duplicated varieties which belong to *Corynebacterium* and

show high producibility for amino acids and their analogues, can be prepd. by the simple process. (6pp)

MITU ★ D16 74930 D/41 ★ J5 6109-594
5-Beta-3-one steroid prodn. - by delta 4 steroid redn. with *Streptococcus* microorganisms using 3-one-4-ene steroid as substrate

MITSUBISHI CHEM IND KK 05.02.80-JP-012784

B01 (31.08.81) C12p-33/02 C12r-01/46

05.02.80 as 012784 (108WB)

Redn. of delta 4-steroid comprises using as substrate 3-one-4-ene-steroid and culturing microorganism belonging to the genus *Streptococcus* to produce 5 beta-3-one-steroid in which C4-5 position is satd.

The *Streptococcus* microorganism is, e.g. *S.faecalis*, esp. *S.faecalis* MCI-1091(FERM-P-5260). Pref. steroids to be reduced are 4AD, teststerone, ADD, predonisolone, etc. Redn. can be conducted using either growing cells or resting cells. INTRODUCTION of a large amt. of air inhibits the redn. Cultivation is conducted at 20-40 deg.C, pref. 25-37 deg.C. The pH is 5-10, pref. 6-9. The concn. of cells is 1 x 10 power 8/ml or more, more than 1 x 10 power 9/ml.

C4-5 position of 3-one-4-ene-steroid can be reduced in high yield and in short time. The obtd. cpd. is useful as intermediate for the prepn. of various steroid hormones and vitamin D₃. (11pp)

HITA ★ D16 74932 D/41 ★ J5 6109-596
Microbial body concn. measurement - by determining nitrogen consumption e.g. by Kjeldahl method

HITACHI KK 01.02.80-JP-010053

B04 (31.08.81) C12q-01/06 C12r-01

01.02.80 as 010053 (5AT)

Microbial body concn. in culture liq. is measured by determining the amt. of nitrogen consumed by the culture and calculating the amt. of microbial body from the nitrogen content of microbial body determined previously. The amt. of nitrogen consumed by the culture can be calculated from the amt. of nitrogen contained in the culture liq., from which microbial body is previously removed and the amt. of nitrogen added to the culture liq.

The nitrogen can be determined e.g. by CHN-analyser, TN-analyser, Kjeldahl method, etc. The nitrogen content in microbial body depends on the microbes and is almost constant during the culture. The nitrogen content of bacteria, yeast and mould is 8-15 w/w%, 5-10 w/w% and 2-7 w/w% respectively.

By this method the microbial body concn. even in the culture liq. obtd. by high microbial body concn.-culturing can be rapidly measured exactly. (4pp)

SHIM/ ★ D16 74933 D/41 ★ J5 6109-597
Detecting enzymatic reactions using luciferin analogue - by measuring radiation from reaction between analogue and oxygen formed by reacting substrate with fixed enzyme

SHIMIZU S 01.02.80-JP-010013

B04 (31.08.81) C12q-01/26 G01n-21/76

01.02.80 as 010013 (5WB)

The following combinations of enzyme and substrate can be used: xanthineoxidase and xanthine, peroxidase and hydrogen peroxide, peroxidase and uricase and urea, peroxidase and glucoseoxidase and glucose, peroxidase and cholesteroloxidase and cholesterol, peroxidase and cholineoxidase and choline, peroxidase and amineoxidase and supermidin, peroxidase and pyruvateoxidase and pyruvic acid, peroxidase and galactoseoxidase and galactose, peroxidase and lactoseoxidase and lactose, peroxidase and amino acid-oxidase and amino acid, and peroxidase and glycerol-8-phosphateoxidase glycerol-8-phosphoric acid.

By the method micro amts. of substrate in living body or food can be rapidly detected or determined exactly and the method can be used in medicinal diagnosis and judging food quality.

The fixed enzyme can be prepd. by including enzyme in photosetting resin membrane. The measurement of the radiation can be effected using highly sensitive phototube. (10pp)

EIKE- ★ D16 57748 D/32 ★ J5 6075-099
Enzyme activity determ. - using p-nitro-aniline deriv. as substrate

EIKEN KAGAKU KK 26.11.79-JP-151996

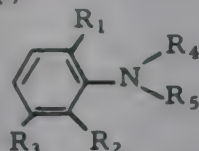
B04 E14 J04 (20.06.81) C12q-01/36

26.11.79 as 151996 (69RH)

Determination of enzyme activity with p-nitroaniline deriv. as substrate comprises subjecting p-nitroaniline, yielded by reaction with enzyme in body liquor by means of substrate buffer soln. contg. p-nitroaniline deriv., to colorimetry of dyestuff yielded by reaction of nitrite in the above substrate buffer soln. with acidic soln. of aniline

deriv. of formula (I). (R₁, R₂ and R₃ are H or substit. (OH, lower alkyl, lower alkoxy or halogen); R₄ and R₅ are H or substit. (lower alkyl, lower hydroxyalkyl, lower cyanoalkyl)). Aniline deriv. is pref. N, N-bis(2-hydroxyethyl)-m- toluidine.

Useful for diagnosis of various diseases e.g. diagnosis of hepan and biliary duct system diseases and early diagnosis of hepatic metastasis of malignant tumor, (Leucine aminopeptidase LAP), diagnosis of hepatic diseases (gamma- glutamyltranspeptidase: gamma-GTP) and diagnosis of placenta function on pregnancy (cystein amino-peptidase:CAP). (6pp)



ISHI- D16 64169 Y/36 = J8 1039-178
Suppressing putrefaction of miso with decreased salt content - by controlling amt. of salt and alcohol added to mixt. prior to fermenting

ISHIYAMA MISO SHOYU 23.01.76-JP-005841

(11.09.81) *J52090-699 A231-01/20

23.01.76 as 005841 (5HM)

The method comprises adding 0.2-5% alcohol and required amt. of the 'miso' yeast to the material for 'miso' contg. salt 5-10% and fermenting the mixt. to increase alcohol content in the material before main fermentation.

The putrefaction of 'miso' can be prevented by controlling the proportion of salt and alcohol added, and the taste and flavour of obtd. 'miso' can be also improved. (J52090699) (3pp)

JAAT D16 55106 X/29 = J8 1039-186
Settling sake dregs - adding irradiated gelling agent, and at least one of kakishibu, tannic acid bentonite, and active carbon

JAPAN ATOMIC ENERGY RES 02.12.74-JP-138234

(11.09.81) *J51063-994 C12h-01/02

02.12.74 as 138234 (DJ)

Gluten, gluten extracted protein, sodium alginate, carrageenan tragacanth gum, gelatin, pectin or cellulose irradiated with ionising radiation and at least 1 of kakishibu, powdery tannic acid, bentonite, sellait and active carbon are added to sake, (ionising radiation: Co-60 gamma-rays). The substance irradiated need not be dissolved beforehand in water but can be directly dissolved or dispersed in sake. Irradiation gives bacteriocidal effect and dregs can be settled to give longer preservable prods.

Furthermore, the quantity of the dregs is small and its viscosity is low. Therefore, few dregs stick to the vessel and sepn. of the dregs is easy. Settling dregs of sake can be carried out more easily, more efficiently and more surely in a shorter time than in the conventional process. (J51063994) (7pp)

AJIN D16 75193 Y/42 = J8 1039-187
Microorganism culture with reduced fermentation time - by adding a filtrate obtd. from the culture of Pseudomonas hydrovora

AJINOMOTO KK 08.03.76-JP-024900

(11.09.81) *J52108-078 + C12n-01 C12r-01/38

08.03.76 as 024900 (5HM)

The method comprises adding the Visking tube-permeable component obtd. from the filtrate of the cultured liq. in which Pseudomonas hydrovora has been cultured. The time of lag phase and the fermentation time can be shortened by 10-40% regardless of the kind of microorganisms. The size of the equipment for fermentation can be decreased.

The applicable stock is a novel bacterium and is named Pseudomonas hydrovora nov. sp. (FERM-P 3452). The stock is cultured at 25-35 deg.C at pH 6-7 for 15-40 hrs. pref. with flowing a gas mixt. contg. H₂, O₂, and CO₂ dioxide. After the culture, bacterial body is sepd. by centrifuge etc., and obtd. cultured liquid is sterilised. The additive is generally applied at 1-30 wt.% w.r.t. the culture medium. (J52108078) (5pp)

MITN D16 84000 W/51 = J8 1039-188
Cultivation of Torulopsis methanoescule - on methanol medium

MITSUBISHI GAS CHEM IND 14.02.74-JP-017843

(11.09.81) *J50111-277 + C12n-01/32 C12r-01/88

14.02.74 as 017843 (AT)

T.methanoescule MT-8 (FERM-P2461) or R-103 (FERM-P 2463) is aerobically cultured on a MeOH medium.

In an example, strain MT-8 was cultured at 37 deg.C for 52 hrs on a medium (pH 5) contg. KH₂PO₄ 4, (NH₄)₂SO₄ 3, and MgSO₄·7H₂O 0.4 g/l plus minor amts. of FeSO₄·7H₂O, CaCl₂·2H₂O, biotin and thiamine-HCl and 5g. MeOH/l. added

Dried yeast was obtd. at 3.5 g/l. medium. (J50111277) (5pp)

SAOC D16 69160 W/42 = J8 1039-189
Purine nucleoside-5-phosphate-2 or 3 -mono or di-phosphates - antitumour agents prepd from donor and acceptor nucleotides by incubation with a pyrophosphoryl transferase

SANRAKU OCEAN 16.12.74-JP-143546

B02 (11.09.81) *DE2510-327 C12r-01/04 + C12n-09/12

16.12.74 as 143546 (JB)

Purine nucleoside-5'-phosphate (mono-, di- or tri-)-3'- (2')-diphosphates of formula (I) and the corresp. monophosphates (II) and their Li, Na and K salts are new: mXpp (I) mXp (II) (m is 1-3 phosphoryl gps. at the 5'-posn. consisting of at least one phosphate or methylenediphosphate (p(CH₂)p) gp.; p is a phosphate gp. and X is an adenosine (A), guanosine (G) or inosine (I) group). Also new are enzymes (III) capable of transferring a pyrophosphoryl gp. from the 5'-posn. of a donor nucleotide or desoxynucleotide to the 3'-(2')-posn. of an acceptor nucleotide; the enzymes having substrate specificity for the donors.

(I) and (II) are biochemical regants, high-energy phosphate additives, pharmaceuticals (e.g. they inhibit murine L 1210 leukaemia and thrombus formation) and diagnostic aids. (III) inhibit or stimulate growth of various tumour cells in cultures and have marked antitumour activity against e.g. Hela S3, L1210 and L5178Y cells. (J51070879) (12pp)

NAKA/ D16 56397 W/34 = J8 1039-190
Clearing lipase with antilipemic activity - by culturing microorganisms on media contg. unsatd. fatty acid (ester) or unsatd. glyceride

NAKA Y 28.08.73-JP-095733

B04 (11.09.81) *J50048-185 + C12n-09/20 C12r-01/38

28.08.73 as 095733 (RH)

Microorganisms are cultured on media contg. unsatd. fatty acids or esters or unsatd. glycerides to give clearing lipase (I) a novel enzyme useful as an antilipemic agent.

In an example preferred Pseudomonas nv. sp. No. 156- A FERM No.1431 freshly isolated was aerobically cultured for 24 hrs. at 26 deg.C on 15 l. medium contg. 1% soy oil, 0.6% urea, 0.2% K₂HPO₄, 0.05% KCl and 0.05% MgSO₄. The broth supernatant was fractioned with EtOH to give 25 g (I) with activity of 82000 u/g. (I) does not contain sugars and is not inhibited by salts. (J50048185) (8pp)

AMAN D16 84611 W/21 = J8 1039-191
(Hemi)cellulase for cellulose decomp. in waste waters - prepd. by culturing aeromonas 212 in nutrient media also contg. (hemi)cellulose

AMANO PHARM KK 10.11.73-JP-125934

A97 B04 F09 (D13 D15) (11.09.81) *DE2453-111 + C12n-09/42 C12r-01/*

10.11.73 as 125934 (DJ)

Cellulose 212 (I) which has an optimum Avicel-solubilising activity at pH 5-8, is prepd. by aerobic culturing of Aeromonas Sp. 212, FERM-P 2306, ATCC 31085 in a nutrient medium contg. N- and C-sources as well as cellulose material, at pH 6-10. Cellulose 212 and hemicellulase 333 which may also be produced, are novel products. (I) can decompose natural celluloses and hemicellulase (II) can decompose straw food- and feedstuff residues. Both are active at pH 4.5-8.5, esp. 6.0-8.0.

They may be used in crude form separately or combined, as cleaning agents, in the decompn. of waste-waters and excrements. In purified form (I) and (II) may be used in foodstuffs and medicaments. Both enzymes have alkali-stability not present in known enzymes and are very active against cellulose materials. They are obtd. in high yield. (J50076287) (6pp)

TEIJ D16 09076 B/05 = J8 1039-192
High purity urokinase prepn. - by contacting aq. urokinase soln. with diethylamino cellulose, then with adsorbent of heparin deriv.) and polysaccharide

TEIJIN KK 26.05.77-JP-060520

A97 B04 (11.09.81) *J53145-983 + C12n-09/72

26.05.77 as 060520 (BZ)

The method comprises (1) bringing an aq. urokinase soln. having an electric conductivity of 15-5 mmho, in contact with diethylaminocellulose, (2) adjusting the electric conductivity of the non-adsorbed fraction to 8-4 mmho, (3) bringing so adjusted soln. in contact with an adsorbent prepd. by chemically binding heparin or its alkali metal salt with an insoluble polysaccharide carrier, and (4) eluting the adsorbed urokinase with an aq. soln. having an electric conductivity of 50-18 mmho.

The insoluble polysaccharide may be agarose, sephanrose or dextran. Binding of heparin or its alkali metal salt to such polysaccharide may be performed by the aid of cyanogen bromide or soluble carbodimides in conventional manners. For the final elution an aq. soln. of a weak acid is used.

JAAT D16 29068 X/16 = J8 1039-193
Polymer compsn contg enzymes or microorganisms prodn - by polymerising monomer dissolved in aq soln or dispersion of enzymes or microorganisms

JAPAN ATOMIC ENERGY RES 30.08.74-JP-099756

A97 (11.09.81) *J51026-285 + C12n-11/04

20.08.74 as 099756 (NS)

In an aq. soln. of enzymes (or an aq. dispersion of microorganisms), at least one polymerisable monomer selected from monomers of formulae (I) and (II) is dissolved. The monomer is then polymerised at a controlled temp. not exceeding 40 deg.C to produce a solid polymer in which the enzymes (or microorganisms) are included. Any known polymerisation process is applicable, but radiation-induced polymerisation is pref.

CH₂:CX-C(O)-(O-R)_n-OR' (I)

CH₂:CX-C(O)-(O-R)_m-C(O)-CX:CH₂ (II)

(X is H, methyl, or halogen; R is -CH₂CH₂-, -CH(CH₃)-, -CH₂-, -CH₂-CH(CH₃)- or -CH₂CH₂CH₂-; R' is H or alkyl, n is a number not greater than 2; and m is a number not greater than 4). Highly porous polymer/enzyme (or microorganism) compsn. is obtd. without drying-, washing-, or grinding operation for increasing porosity.

The prod. can be used for enzyme reaction purposes without additional treatment. (J51026285) (6pp)

TAKE D16 22370 A/12 = J8 1039-194
Fermentative prodn. of D-iso: citric acid - by culturing e.g. *Candida lipolytica* ATCC 20114 in a medium contg. normal-paraffin, salts and itaconic acid

TAKEDA CHEMICAL IND KK 10.06.74-JP-066326

B05 E17 (11.09.81) *J50155-683 + C12p-07/48 C12r-01/72

10.06.74 as 066326 (38KB)

(+)-isocitric acid (I) is fermentatively produced by yeasts in the presence of itaconic acid (II). (I) is a food additive.

In an example, *Candida lipolytica* ATCC 20114 was pre-cultured and aerobically main-cultured on a medium contg. 8% n-paraffin salts, and 0.01 M (II), at pH 3.5. Amts. of (I) accumulated were 1.50 and 87.2 g/l. after 19 and 72 hrs. but 0.09 and 36.4 g/l. respectively, without (II). (J50155683) (8pp)

MASI D16 88536 Y/50 = J8 1039-197
Test method for detecting mutagenesis - based on the use of human diploid cells

MASSACHUSETTS INST TECH 24.05.76-US-689432

B04 S03 S05 (11.09.81) *DE2723-185 + C12q-01/02

23.05.77 as 059692 (367KB)

Test method for determining the mutagenic properties of a substance comprises first contacting a culture of human diploid (or approx. diploid) cells with the test substance. The treated cells are then incubated until sufficient generations have developed from them to manifest pheotypic resistance to a purine which acts as a hypoxanthine-guanine-phosphoriboyl transferase (HGPR T) substrate. The fraction of mutant cells is then determined. Also claimed is an active metabolising system esp. suitable for use in the test to determine the mutagenic effect of metabolites of the test substance.

The method is based on the fact that a long time (phenotypic lag) is required for mutagenesis to show up in human diploid cells. Its advantage over methods using cells of lower mammals is that human-specific mutagenic effects can be detected. (J52143278) (14pp)

BOEF D16 81194 Y/46 = J8 1039-198
Substrates compsn. or enzymatic activity evaluation - using redox reaction, in the presence of ascorbate-oxidase

BOEHRINGER MANNHEIM GMBH 09.06.76-DE-625834

B04 J04 S03 (S05) (11.09.81) *BE-854-407 C12q-01/26

06.05.77 as 051953 (395WB)

Process for the determination of substrates of for measuring enzymatic activity by use of oxido-reduction reactions is effected in the presence of ascorbate-oxydase.

Oxido-reduction reactions are used for determining the concns. of enzymes or substrates e.g. using photometric methods to express the results. The use of ascorbic-oxydase to oxidise the ascorbic acid to dehydroascorbic acid and water avoids the interference of ascorbic acid. (J52150692) (10pp)

KURE D16 79384 A/44 = J8 1039-288
Increasing antibiotic activity against resistant bacteria - using a nitrogen-contg. polysaccharide extracted from *Coriolus mycelium*

KUREHA CHEM IND KK 13.04.77-JP-041513

B04 (11.09.81) *NL7803-875 A61k-35/84

13.04.77 as 041513 (367AS)

The sensitivity of resistant bacteria to antibiotics is increased using an N-contg. polysaccharide (I) which can be obtd. by extracting the mycelium of a basidiomycete of the genus *Coriolus* (family Polyporaceae) with an aq. solvent and working up the extract. (I) has a mol. wt. of 500-300000, contains 42.0-46.0% C, 5.3-7.0% H and 0.5-8.0% N, has a specific rotation between 0 and +50 deg.C., is readily soluble in H₂O but insoluble in acetone, pyridine, CHCl₃ and hexane, and has characteristic IR absorption bands at ca. 840 and 890 cm⁻¹).

(I) can be administered in association with a wide range of antibiotics, (e.g. penicillins, cephalosporins, tetracyclines, streptomycin, kanamycin and chloramphenicol) to increase the strength and duration of their activity against various resistant strains of e.g. *Staph. aureus*, *E.coli*, *Saln enteritidis*, *K.pneumoniae*, *Shigella sonnei*, *Ps.aeruginosa*, *Strept. faecalis*, *Proteus mirabilis* and *Enterobacter aerogenes* (J53127813) (11pp)

AGEN D16 13617 C/08 = J8 1039-631
Alpha-1,6-glucosidase prepn. - by cultivating *Bacillus* bacteria in medium contg. manganese and iron ions to increase yield

AGENCY OF IND SCI TECH 06.06.78-JP-067980

(D17) (14.09.81) *J55003-703 C12n-09/44 + C12r-01/07

06.06.78 as 067980 (5BZ)

Method comprises culturing alpha-1,6-glucosidase-producing *Bacillus* bacteria in a culture medium contg. manganese ions and iron ions.

Pref. the amt. of manganese ions and iron ions are 1 x 10 power minus 6 - 1 x 10 power minus 3 M and 1 x 10 power minus 5 - 1 x 10 power minus 4 M respectively. *Bacillus cereus* var. *mycoides* FERM-P 2391 is pref. used. The yield of alpha-1,6-glucosidase can thus be increased 6-7 fold. (J55003703) (4pp)

MOMI D16 91659 B/51 = J8 1039-632
Enzymatic prepn. of aldehyde from amino acid and polyphenol - using a polyphenol oxidase obtd. from *Alternaria* or *cladosporium* microorganism

MORINAGA & CO LTD 27.04.78-JP-050585

B05 E16 (14.09.81) *J54143-591 + C12n-09/02 C12p-07/24 C12r-01/64

27.04.78 as 050585 (5BZ)

Method comprises contacting a polyphenol-oxidase produced by a polyphenoloxidase-producing microorganism belonging to *Alternaria* or *Cladosporium*, with a reaction mixt. contg. amino acid and polyphenol. Examples of the reaction mixt. are green tea extract, cacao bean extract, coffee bean extract or their combinations, with amino acids.

Pref. microorganism is *Alternaria tenuis* A-2 (FERM P-332) which is aerobically cultivated at 30 deg.C. Acetaldehyde, i-butylaldehyde, i-valeraldehyde, 2-methylbutanal, methional, phenylacetaldehyde, etc. can thus be formed from alanine, valine, leucine, i-leucine, methionine, phenylalanine, etc. respectively.

Thus formed aldehydes are aromatic substances which are used for enhancing flavour. (J54143591) (3pp)

IDEK D16 60550 B/33 = J8 1039-634
Glutathione-contg. liquor prodn. - by adding liquor contg. (hydroxy) carboxylic acid to yeast fungi and extracting resultant mixt.

IDEMITSU KOSAN KK 15.12.77-JP-149958

B05 E16 (14.09.81) *J54084-093 + C12p-21/02 C12r-01/86

15.12.77 as 149958 (69DJ)

Process comprises adding liquor contg. at least 1 aliphatic carboxylic acid or aliphatic hydroxycarboxylic acid to yeast fungi body and extracting resultant mixt. at less than 40 deg.C. Pref. acid used is formic, acetic, propionic, butyric, valeric, oxalic, glycollic, citric, lactic, malonic, tartaric and/or tatrionic acid.

Pref. acid concn. of mixt. after addn. of liq. to yeast fungi body is 2 wt.% water content greater than 5 wt.% and pH is less than 2. When the (hydroxy)carboxylic acid used is solid at ordinary temp., it is used as mixt. with water and/or organic solvent. The organic solvent is pref. a hydrophilic solvent such as methanol, ethanol or acetone. The yeast is e.g. baker's yeast. (J54084093) (3pp)

NISR D16 25684 D/15 = J8 1039-635
Selective media for detection of cholera bacteria - contg. mannose, dye, polymyxin B, surfactant and tellurite

NISSUI PHARM KK 25.09.79-JP-122806

B04 (14.09.81) *DE3007-579 C12q-01/04

25.09.79 as 122806 (367DJ)

Selective growth media for isolation and detection of cholera bacteria contain mannose, a sulphophthalein dye (I), polymyxin B (II), a surfactant, and K tellurite (III).

The media pref. contain 1.5-2.5% mannose, 0.002-0.008% (I), 100,000-200,000 U/l of (II), 0.009-0.25% surfactant and 0.00008-

0.00015% (III). The surfactant is pref. Na lauryl sulphate or Na heptadecyl sulphate. (I) is pref. bromothymol blue, thymol blue, cresol red or phenol red.

The media are more sensitive and selective (do not give false positive results with non-agglutinating *Vibrio* spp) than thiosulphate-citrate-gallate-agar and *Vibrio* agar media. (J56048897) (3pp)

MARU- D16 26538 C/15 = J8 1039-836
Reagent for determin. of guanase - comprises 8-aza:guanine or guanine as substrate and N,N-bis-2-hydroxyethyl-glycine

MARUHO KK 25.08.78-JP-104239

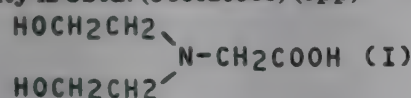
B04 (14.09.81) *J55029-985 C12q-01/34

25.08.78 as 104239 (140JB)

Reagent for determin. of guanase which is clinically useful for diagnosis of liver disorders comprises a substrate buffer contg. 8-azaguanine or guanine as a substrate and N,N-bis(2-hydroxyethyl)glycine (BHG) of formula (I).

BHG helps dissoln. of the substrate without adversely affecting the enzymatic reaction system. Use of this reagent gives more accurate guanase levels than the conventional methods, partic. when determin. is conducted in combination with colourimetric NH₃ determin.

Pref. molar ratio of BHG to substrate is 1:30. A suitable substrate concn. is about 1.3 mM. In a direct ammonia colourimetric determination, the enzymatically released NH₃ is changed to indophenol by the action of phenol, sodium nitroprusside and sodium hypochlorite, and a developed blue colour is determined as absorbance at 630 nm, from which the enzymatic activity is obt'd. (J55029985) (5pp)



ABBO D16 10637 A/06 = J8 1039-837
Alpha-amylase enzymatic determination - in e.g. serum or urine using modified starch substrate and phosphorylase, phosphoglucomutase and glucose 6-phosphate dehydrogenase

ABBOTT LABORATORIES 01.07.76-US-701778

B04 S03 S05 + P31 (14.09.81) *DE2729-636 + C12q-01/40

29.06.77 as 076684 (280KB)

In the determin. of alpha-amylase in a sample, the sample is incubated with a modified starch substrate contg. masked, non-reducing terminals in the presence of a suitable phosphorylase, phosphoglucomutase and glucose 6-phosphate dehydrogenase as coupling enzymes for measuring the non-reducing terminals freed under the influence of the alpha-amylase.

New reagent for the determination of alpha-amylase in a sample contains: 20-100 mmol/l phosphate buffer pH 6-8; 1-5 mmol/l Mg salt; 0.01-0.5 mmol/l adenosine 5'-monophosphate; 1-5 mmol/l, nicotinamide adenine dinucleotide; 0.1-5 umol/l glucose 1,6-diphosphate; 2-100 mmol/l NaCl; 2-5 g/l 4% periodate oxidised NaBH₄-reduced starch; 8-30 U/ml rabbit muscle phosphorylase b; 1-10 U/ml phosphoglucomutase; and 5-50 U/ml glucose 6-phosphate dehydrogenase.

Used for determin. of alpha-amylase in biological fluids such as serum or urine. (J53003891) (4pp)

NISY D16 16953 A/09 = J8 1039-878
Digestion of polyvinyl alcohol resin(s) - by incubating with a strain from *Staphylococcus* in medium contg. acetic acid, an acetate and/or an acetate ester

NIPPON SYNTH CHEM IND 06.07.76-JP-080616

A14 (A35 D15) (16.09.81) *J53006-481 C12r-01/44 + C02f-03/02 C12n-01/20

06.07.76 as 080616 (42RH)

Digestion of polyvinyl alcohol resin (I), comprises incubation of a microorganism (II) belonging to *Staphylococcus* in a culture medium contg. (I) and at least 1 of acetic acid (III), acetate salts (IV) and acetate ester (V) as carbon sources.

Used for treatment of waste water contg. (I). Digestion of (I) is promoted by the addn. of one or more of (III), (IV) and (V).

The concn. of (I) in the culture medium is 0.005-1wt.%, e.g. (0.01-0.2wt.%) and the concn. of the sum of (III), (IV) and (V) is 5-500 wt.%, e.g. (20-300wt.%), w.r.t. (I). Examples of (IV) are sodium and potassium acetate and examples of (V) are methyl, ethyl, propyl and butyl acetate. The temp. and pH of incubation are 20-37 deg. C and 6.0-8.0 respectively. An example of (II) is *Staphylococcus aureus* (IFO 3060). (J53006481) (3pp)

AGEN D16 56824 B/31 = J8 1039-879
Fixation of lipase - by binding with ion exchanger having hydrophobic gps.

AGENCY OF IND SCI TECH 29.11.77-JP-143037

A96 (16.09.81) *J54076-592 + C12n-11/16

29.11.77 as 143037 (BZ)

Fixation of lipase, comprises binding with ion exchanger having hydrophobic groups, by ionic bond and hydrophobic bond.

Lipase can be fixed more stably, depending on linkage with both of ionic bond and hydrophobic bond. The fixed lipase does not dissociate from the support according to pH change and the support can be reused repeatedly.

Hydrophilic radicals, are aliphatic, aromatic and alicyclic hydrocarbon. Ion exchange radicals are amino, aminophenyl, and guanidoalkyl. (J54076892) (3pp)

MITN D16 57490 C/33 = J8 1039-880
Coenzyme/Q-10 prodn. - by culturing *Pseudomonas aminovorans*, *P. diminuta*, *P. MA* or *Acetobacter sadue*

MITSUBISHI GAS CHEM IND 21.12.78-JP-157980

B05 (16.09.81) *J55085-393 C12p-07/66 C12r-01/02

21.12.78 as 157980 (RH)

Process comprises culturing a coenzyme Q10 producible strain of *Pseudomonas aminovorans* (NCIB 9039), *Pseudomonas diminuta* (IAM 1513) *Pseudomonas MA* (ATCC 23819) or *Acetobacter Sadue* (BNS-25, FERM-P2654), and recovering the produced coenzyme Q10 from the organism.

Coenzyme Q10 is an important factor as electron transfer in the terminal respiratory system, and has been used as drug in acceleration of pancreas function or in treatment of myasthenia gravis, pulmonary emphysema, aplastic anemia or alopecia areata. (J55085393) (3pp)

CGDA D16 35838 R/20 = NL-167-994
Growth of bacteria

CIE GEN AUTOMATISME 22.11.68-FR-174997

A18 (16.09.81) *BE-741-827 + C12m-01/22

24.11.69 as 017655 (160TM)

The equipment is for studying the growth and physiology of micro-organisms under aerobic and anaerobic conditions, having a first portion exposed to the air and a second sealed off at the top by a layer at a lower level than the top of the first one. The second portion is connected to the first via an aperture at the bottom of the latter. The volume of the first portion is the greater, and the bottom of each is transparent.

It comprises a flat plate to which a plate containing a number of vessels and of hot-shaped material is fixed. In each vessel, the second portion, closed by a transparent layer, is outside and alongside the first. (7pp)

KONN D16 42348 X/23 = NL-167-995
Detergent compsns contg. protease - prepd. in high yield by cultivating *Bacillus nov spec* PB 92 (OR60) (BE180576)

GIST-BROCADES NV 19.11.74-GB-050044

(D25) (16.09.81) *DE2551-742 C11d-03/38 C12n-09/54

18.11.75 as 013433 (510TM)

A proteolytic enzyme with high activity in a basic medium is obt'd. by culturing *Bacillus* PB-92 and sepg. the enzyme from the culture medium. A detergent compsn. contg. the new enzyme is claimed.

The enzyme is obt'd. in high yield and shows good cleaning action in detergent compsns. contg. perborates. Mutants of B. PB-92 may be used. (9pp)

PFIZ D16 08629 V/05 = NL-167-996
Immobilised enzymes prodn - by coupling enzymes with reactive vinyl monomers and (co) polymerising

PFIZER INC 06.12.72-US-312694 (12.07.72-US-271159)

A97 B04 (16.09.81) *NL7309-488 C08f-16/36 C08f-20 C08f-28/02 C12n-11/08

06.07.73 as 009488 (913TM)

Immobilised enzyme is produced by contacting it with polymerisable, ethylenically unsatd. monomer which contains a reactive gp., for a time sufficient to form a fully covalent bond between enzyme and monomer. The enzyme-monomer prod. is then (co)polymerised in the presence of a cross-linking agent and an initiator.

The monomer is of formula CH₂=C(R₁)W. R₁ is H, methyl or Cl; W is -COR₂, -SO₂Cl, or p-(chlorosulphonyl)phenyl; R₂ is from (A) OH, halogen, azido, 2,3-epithiopropoxy, acryloyloxy, methacryloyloxy, alkoxycarbonyloxy (where alkyl is 1-6C), benzene-sulphonyloxy or N-((p-diazonium chloride)phenyl) amino, and (B) -X-(Y-X')-n-Z where X and X' are -O- or -NR₃; R₃ is H or 1-6C alkyl; Y is 2 or 3C alkylene; n is 1 or 2; Z is H or haloacetyl, 2-(4,6-dichloro) s-triazinyl, p-toluene sulphonyl p-(halomethyl)benzoyl or cyano, and when Z is p-toluene sulphonyl X' is O.

Before reacting with the enzyme, the monomer where R₂ is OH is activated with a carbonyl gp. activator, and the monomer where Z is H is activated with a cpd. halogen-Z (where Z is not H). (10pp)

BOEF D16 15060 S/08 = NL-168-049
Enzymatic conversion of glucose
BOEHRINGER MANNHEIM GMBH 11.08.69-DE-940816
B04 S03 S05 (16.09.81) *NL7011-769 G01n-33/66
0.08.70 as 011769 (913JB)
Glucose-content of a sample is determined by (a) phosphorylating the glucose to glucose-6-phosphate with adenosine triphosphate (ATP) in the presence of hexokinase, and (b) oxidising the phosphate to gluconate-6-phosphate with glucose-6-phosphate dehydrogenase in the presence of a nucleotide (nicotinamide-adenine-dinucleotide phosphate (NADP) while simultaneously producing an equiv. amt. of reduced nucleotide. The aq. soln. of ATP used has pH 6.8-8.0, and also contains a buffer, an azide and Mg ions.
Suitable reagent combinations are (1) homogeneous powder mixt. of ATP, NADP, MgSO₄, an azide and buffer, and separately a suspension of hexokinase and glucose-6-phosphate dehydrogenase in aq. ammonium sulphate soln., or (2) aq. soln. contg. ATP, MgSO₄, buffer, digitonine, and Na azide, solid NADP, and suspension of hexokinase and glucose-6-phosphate dehydrogenase in aq. ammonium sulphate.
Pref. the buffer is a mixt. of triethanolamine hydrochloride, and NaOH and/or Na₂CO₃. The method is suitable for glucose determin. in full blood samples, and the reagents are stable for extended periods. (4pp)

MATT/ ★ D16 75044 D/41 ★ SE 7910-639
Polymer materials contg. fixed biological materials - consist of aggregates of small particles and are useful in chromatography
MATTIASSON BG 21.12.79-SE-010639
A96 B04 J01 (20.07.81) C07g-07 C12n-11/08
21.12.79 as 010639 (1432RP)
A polymeric mass comprising an assembly of particularly 5-100 and pref. 20-80 smaller polymer particles is new. The polymeric mass partic. contains biologically active material mechanically trapped in the polymer network and is useful for chromatographic purificn. and sepn. processes. The material has an improved balance of column flow properties and diffusion access to the biological material.
The process for producing such a polymer mass by initial polymerisation with fast stirring 300-2000 r.p.m. pref. 600-900 r.p.m. followed by final polymerisation with slow stirring at 0-300 pref. 100-200 r.p.m. is also new.
The polymer mass is based on acrylic monomers pref. acrylamide and is crosslinked with N,N'-methylene bis acrylamide. The biological material may be added with the monomer soln. or separately to the reaction medium. (Provisional Basic previously advised in Week D32) (13pp)

UPJO D16 31828 B/17 = SU-797-591
Antibiotic CC-1065 - disinfectant, oil preserving agent and for protecting silk worms from infection from Bacillus subtilis, prepd. from Streptomyces zelensis
UPJOHN CO 17.10.77-US-842914
B04 C03 H07 (17.01.81) *DE2841-361 + C12p-01/06 C12r-01/46
16.10.78 as 672704 (WD)
The antibiotic CC-1065, which is effective against gram positive and gram negative bacteria and against L1210, P388 and B16 cells in vivo in mice has the following characteristics, in its essentially pure form; (a) mol. wt. ca. 700; (b) C 61.06%; H 4.92%; N 13.17%; (c) is soluble in DMSO, DMF, acetone, CH₂Cl₂, ethyl acetate and dioxan; and (d) in the form of a slurry in mineral oil, has a characteristic IR, nmr and proton spectrum as shown in the specification.
The antibiotic is suitable for use as an oil preserving agent to inhibit the bacteria which cause oil impurities. The antibiotic can also be used as a component of washing solns. for sanitary purposes. Because the antibiotic is also effective against Bacillus subtilis. it can also be used in the breeding places of silkworms to reduce infections caused by this bacterium.
The antibiotic is prepd. by culturing Streptomyces zelensis DSM 1341 (nov. sp.) in an aq. culture medium and under aerobic conditions. Bul. 2/15.1.81. (5pp)

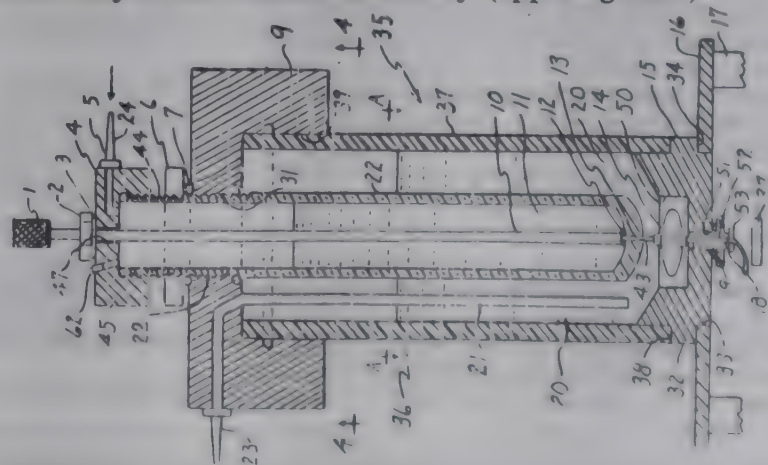
BOEF D16 81194 Y/46 = SU-797-592
Substrates compsn. or enzymatic activity evaluation - using redox reaction, in the presence of ascorbate-oxidase
BOEHRINGER MANNHEIM GMBH 09.06.76-DE-625834
B04 J04 S03 (S05) (17.01.81) *BE-854-407 C12q-01/26
06.05.77 as 481956 (395WD)
Process for the determination of substrates or for measuring enzymatic activity by use of oxido-redn. reactions is effected in the presence of ascorbate-oxidase.
Oxido-redn. reactions are used for determining the concns. of enzymes or substrates, e.g. using photometric methods to express the results. The use of ascorbic-oxidase to oxidise the ascorbic acid to dehydro ascorbic acid and water avoids the

Interference of ascorbic acid. Bul. 2/15.1.81. (6pp)

HEAL = ★ D16 75254 D/41 ★ SU-797-662
Bronchial pneumonia simulation - by administration of mixt. of formaldehyde in air, followed by intranasal dose of haemolytic staphylococcus and treatment at low temps.
HEALTH RESORT PHYSI 17.01.79-SU-733269
B04 J04 P31 P85 (28.01.81) A61b-10 G09b-23/28
17.01.79 as 733269 (1471WD)
The spread of model bronchial pneumonia is increased and the pathology is brought closer to its clinical symptoms in people, by admin. of formaldehyde in form of an air mixt. (conc. 12-17 mg/l) over 3-4 days, at 1.5-2 hours intervals, followed by intranasal admin. of haemolytic staphylococcus culture and subjecting the laboratory animals to 4-7 deg.C. temp., for 90-120 mins.
White rats are subjected to inhalation of air-formalin mixt. daily for 1.5 hours for 4 days. After the inhalation course, the animals under ether anaesthesia are treated with intranasal dose of 0.7 ml. of aq. suspn. of haemolytic staphylococcus strain 209 (2 billions of microbe bodies in 1 ml.). Then 15 min. after the admin. of the bacteria the animals are subjected to temps. of 4 deg.C. for 2 hrs. The animals are killed 7 days later.
In all the animals, bronchial pneumonia in the state of red hepatisation is observed predominantly in the left lung (12-56%), but also in the right lung-tip, diaphragmatic part (41%) and in the accessory part (24%). Lower one-sided and both-sided bronchial pneumonia is also registered in 13-28%.
Microscopic research of the histological slices of the lung tissues shows atelectatic bronchial pneumonia with desquamation components and polypheration of alveolar and bronchial epithel, alteration of alveoles and small bronchial and excudation and also mucopurelant cattarrh, desquamato-mucoid bronchitis and peribronchitis. Bul. 3/28.1.81. (2pp)

PROT = ★ D16 75269 D/41 ★ SU-797-715
Microbiological solids-liquids system counterflow continuous extrn. - using alternating outflow and settling of micelle with accompanying increase and decrease in extrn. agent feed based on solids retention rate
PROTEIN BIOSYNTH 22.04.76-SU-351002
J01 (23.01.81) B01d-11/02
22.04.77 as 351002 (132VE)
The process, useful in extrn. of lipids from microbial biomass etc. comprises treatment in a column with a top settling and a bottom extraction zone with feed of solid phase into the top of the extraction zone and liquid phase into the bottom zone, for removal of the clarified micelle from the settling zone.
To increase the degree of clarification, the micelle is removed periodically with intermediate filling of the settling zone with it, and decrease in the liquid feed volume to the amount retaining by the solid phase. (3pp)

CARV/ ★ D16 75439 D/41 ★ US 4290-300
Sucrose density gradient soln. - obtd. by mixing two liquids separating biological sample into layers
CARVER J 18.10.78-US-952283
S03 (22.09.81) G01n-09/18
18.10.78 as 952283 (295KD)
An expotential or linear density gradient of sucrose soln. is created within a test tube by filling it initially with a low density soln. Surrounding the test tube is a vessel contg. a high density sucrose soln. A needle valve at the base of the test tube can be opened to selectively mix the solns. and each of the solns. can be vented or connected to a pressurised gas by valves. In operation, the needle valve is opened while one of the vessels is vented to the atmos. An opt. stirrer may be activated. A biological sample is added to the mixed sucrose soln. and separates into layers of varying molecular wt.
The appts. separates a biological sample into its components which may be harvested selectively. (6pp Dwg.No.1)



MILE D16 44388 D/25 = US 4290-773
Benzidine-type indicator test compsn. - with phenol, nitrile(s), heterocyclic cpds. etc. to increase sensitivity of test
MILES LABORATORIES INC 13.11.79-US-093431
B04 E19 (D13) (22.09.81) *EP--29-926 + G01n-33/52
13.11.79 as 093431 (945TM)
Compan. for detecting the presence of a constituent in a test sample comprises a benzidine-type indicator and an enhancer cpd. of formula PhX, where X is OH, CN, NO₂, CHO, SO₃R' or NRCOR'; R is lower alkyl; and R' is H or alkyl.
Pref. the enhancer is phenol, nitrobenzene or benzonitriles. Used for detection of sugars, H₂O₂, peroxidases, peroxidatively active substances, hypochlorite and other analytes. The enhancer promotes sensitivity by permitting an observable colour appearance at analyte levels lower normal. It also enables semi-quantitative assessments to be made at much higher concns. (7pp)

FINN. D16 84904 B/36 = US 4290-997
Automatic measurement of agglutination test samples - using reaction cells in which non-agglutinated particles settle away from the measuring beam
FINNPIPETTE OSMO A 28.02.78-FI-000670
B04 J04 S03 + P31 (S05) (22.09.81) *DE2905-558 G01n-33/54
G01n-35 + G01n-01
28.02.79 as 015316 (1358AT)

Appts. for automatic measurement of agglutination test results includes a incubation vessel for a sample, with a recess for receiving non-agglutinated particles and formed by an angle between vertical sidewall and bottom, and an area for receiving agglutinated particles. The recess is out of the path of a measurement beam passing through a window.

The vessel may be flat-bottomed and be held at an angle for particles to settle into a corner, or may have an upwardly inclined bottom so that particles settle to the lower end, or may have a V-shaped bottom with the beam passed to one side of the centre, or may have a raised centre and peripheral annular recess. (8pp)

IOWA * D16 75596 D/41 ★ US 4291-019
Infectious bovine rhinotracheitis vaccine prepn. - by growing virus on bovine lung cells and recovering viral envelope protein by soln. in aq. nonionic surfactant
IOWA STATE UNIV RES INC 02.05.80-US-146141 (09.07.79-US-055821)
B04 C03 (22.09.81) A61k-39/26
02.05.80 as 146141 (916HM)

Parenterally injectable infectious bovine rhinotracheitis (IBR) vaccine is prepd. by cultivating virulent IBR virus in a cell culture medium, collecting the cells and contacting them with a soln. of a non-ionic detergent. This dissolves the viral envelope protein which is then sepd. for use as a vaccine.

The virus is preferably the virulent Cooper strain normally used as a challenge strain. The cells used are bovine lung cells grown on Eagle's minimum essential medium supplemented by 10% irradiated calf serum, 0.5% lactalbumin hydrolysate and antibiotics and buffered with 0.16% sodium bicarbonate, and 8 mM N-2-hydroxy-ethylpiperazine-N'-2-ethanesulphonic acid. Incubation temp. is 37 deg.C and the atmos. contains 5% carbon dioxide.

This vaccine gives a higher antibody response than those of prior art. It may be administered to cattle including calves pregnant cows, oxen and water buffalo. (7pp)

USSH * D16 75597 D/41 ★ US 4291-020
Inactivation of non-A, non-B hepatitis virus agent with formalin - for prodn. of vaccine against non-A, non-B hepatitis
US SEC OF HEALTH 16.05.80-US-150320
B04 (22.09.81) A61k-39/29
16.05.80 as 150320 (1248MR)

Treatment of an agent of human non-A, non-B hepatitis virus is with formalin at a concn. of 1:1000-1:10000 for 24-120 hrs. to inactivate the agent.

The inactivated agent (I) can be used for a vaccine against non-A, non-B hepatitis, as it induces an immune response. (I) is responsible for non-A, non-B hepatitis infections in post-transfusion episodes in different areas of the U.S. It is transmissible to humans and chimpanzees and it may be serially passaged in chimpanzees; it may remain in blood for prolonged periods.

Pref. formalin as an aq. 37-50% soln. opt. contg. 15% MeOH is used. Suitably formalin at 1:1000 is used for 96 hrs. at 37 deg.C plus or minus 4 deg.C. The lack of infectivity of the treated virus is tested by inoculation of a chimpanzee.

For use in a vaccine the agent may be combined with an adjuvant. (3pp)

TOXN D16 84686 B/47 = US 4291-021
Macrolide antibiotics with antibacterial and antimycoplasmal activity - obtd. by cultivation of *Micromonospora* sp. a11725, useful as fodder additives
TOYO JOZO KK 16.03.79-JP-031316 (10.05.78-JP-054373)
B04 (22.09.81) *GB2020-647 A61k-35/74 C12p-19/60
10.05.79 as 037846 (+ 2.3.79-JP-024788) (924MR)
Novel antibiotic substances A 11725 I, II, III, Ia and IIa are described. Antibiotic A 11725 I is a white powder of mol. formula C₃₇H₆₁NO₁₂, mol. wt. 711, m.pt. 103-107 deg.C and (alpha) D-40 deg. (C=1 methanol). UV, IR and NMR spectra are given. Positive colour reaction is obtd. with aq. KMnO₄ soln. Negative reactions are obtd. with Ninhydrin, Sakaguchi's and ferric chloride reagents. The substance is basic, soluble in acidic water, methanol, acetone, ethyl acetate and benzene and difficultly soluble in basic water.

The substances are obtd. by culturing *Micromonospora* sp. A11725 (NRRL 11452) in a medium contg. assimilatable C and N sources, and an inorganic substance under aerobic conditions, then collecting the accumulated antibiotic substance.

The substances exhibit excellent antibacterial and antimycoplasmal activity against *Staphylococcus* or *Mycoplasma*. (25pp)

AMCY D16 19611 D/12 = US 4291-026
Antibiotic BM123-gamma pamoate complex prepn. - by addn. of water soluble pamoate salt to aq. antibiotic soln, pref fermentation whole harvest mash

AMERICAN CYANAMID CO 28.08.79-US-070460
B04 C03 (D13) (22.09.81) *EP--24-508 + A61k-31/71
28.08.79 as 070460 (924MR)

Recovery of an antibiotic trans-BM123V pamoate complex from a fermentation whole harvest mash comprises (a) producing a fermentation liquor by clarifying the whole mash, (b) adding a water soluble pamoate salt selected from ammonium and alkali(ne earth) metal pamoates or their mixts. while maintaining the liquor at pH 4-8 by addn. of acid or base, (c) removing the pptd. antibiotic complex, and (d) drying the obtd. prod.

Pref. pamoate salt is NH₄, Na, Mg or Ca pamoate. The highly stable complexes are useful as animal feed supplements which significantly enhance the growth rate of animals and poultry. Feed supplement comprises are administered in amt. sufficient to furnish dosage levels of 350 mg/head/day for large ruminants and 100 mg/head/day for non-ruminants. (6pp)

NADI * D16 75639 D/41 ★ US 4291-124
Continuous fermentation of sugars to ethanol - using sugars prepd. by acid hydrolysis of carbohydrate polymers
NATIONAL DISTILLERS CORP 12.03.80-US-129518 (25.06.79-US-052038)
(22.09.81) C12p-07/14
12.03.80 as 129518 C.i.p. 4242455 (478HM)

Process for the acid hydrolysis of carbohydrate polymers (I) and the continuous fermentation of the produced fermentable sugars (I) to EtOH is as follows: (a) a pressurised acidified aq. slurry is passed through a conduit under steady state temp./ pressure to convert at least 60% by wt. of (I) to (II) (but no conversion to non-fermentable prods.); (c) pressure of the slurry is reduced so that undesirable side-reactions of (II) cannot occur; (d) (II) (pH adjusted; partial hydrolysate opt. further saccharified) is continuously fermented in a series of vessels in which the EtOH concn. is progressively increased. The fermentation uses at least 2 strains of EtOH-producing yeast: (i) one which gives a high rate of EtOH prodn. in media contg. low EtOH concns. but high (II) concns., and (ii) one which affords a high rate of EtOH prodn. in media contg. high EtOH concns. but low (II) concns. This is a c.i.p. of US4242455.

The acid hydrolysis of (I) is effected at rapid and high conversion levels without significant degradation of the produced (II). In addn., the thermally efficient, rapid, continuous fermentation affords industrial EtOH at competitive prices. (10pp)

MERI * D16 75649 D/41 ★ US 4291-156
Hetero-polysaccharide S-53 thickening agent - useful for thickening paints etc., prepd. from aerobic culture of *Klebsiella pneumoniae*
MERCK & CO INC 28.02.79-US-016253
A11 G02 H01 (A97 D17) (22.09.81) C12p-19/06
28.02.79 as 016253 (478)

Heteropolysaccharide S-53 (I) contains 4.8% pyruvate, 7% acetyl, and 18-19% uronic acid, while the rest is neutral sugar (51% glucose and 49% fucose). (I) is incompatible with methylene chloride dye but compatible with milling green dye. (I) is soluble in H₂O, but insol. in H₂O-miscible alcohols (MeOH, EtOH and i-PrOH) and ketones (Me₂CO etc.). (I) has V max 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000.

and 1600 cm -1.

(I) is esp. useful in thickening latex paints (partic. semi-gloss and flat) to give them good rheology control, good brushing or rolling props., and good scrub resistance and weatherability. (I) is also useful as a rheology modifier in textile and carpet printing, in oil well drilling and H₂O flooding for sec. oil recovery, and as a thickener and stabiliser in drywell joint paste. (4pp)

MOEL/ ★ D16 75685 D/41 ★ WP 8102-660
Commercial farming of marine and fresh-water plants and algae - in environment with controlled atmos. including mist sprays, lighting and temp. controls (PT 16.9.80)

MOELLER H W 10.03.80-PT-070925 (19.03.80-WP-U00286)
P13 (01.10.81) A01g-31/02
19.03.80 as U00286 (295AS) (E) US1827530 US1912209 US2620335 US2715795 US2732661 US2732663 US2807912 US2854792 US2855725 US2928211 US3016801 US3195271 US3362104 US3403471 US3529379 US3613308 US3650068 US3653150 US3965972 US4003160 US4068405 US4073089 US4095369 US4128307 US4209943 J70000940 J74047836 N(DK JP)

Macroalgae propogates are cultivated using a clean core of plastic material which is inserted in an expandible netting. Mature reproductive macroalgae are loosely packed in the space surrounding the core and bounded by the netting. The packed macroalgae are placed in an environment conducive to growth to establish propogates. The adult plants are removed and the propogates are cultivated in an environment conducive to growth. Pref. this consists of a protected, artificially or naturally lighted, moisture-charged atmos.

Freshwater or marine plants may be grown under controlled conditions. Examples include green and brown algae, stoneworts, liverworts, mosses, ferns and flowering plants. (30pp)

ALKU D16 72108 D/40 = WP 8102-74
Prod'n. of fermented drinks with reduced alcohol content - mad by dialysing the drinks against non sweetened fruit drink o alcohol reduced fermented drink
AKZO GMBH (TILG) 14.03.80-DE-009829 (14.03.80-DE-009828)
(01.10.81) *EP--36-175 C12g-03/08
13.03.81 as D00042 (513HM) (G) EP--21247 US2122761 FR233354 GB1177126 FR1585376 GB1079517 DS2243800 1.Jnl.Ref N(JP US)
In a process for the prodn. of fermented drinks such as beer wine, champagne, etc., with a reduced alcohol content, the ready fermented drink made by normal fermentation techniques is passed over a dialysis membrane at a press. difference of less than 0.5 bar. The dialysis fluid on the other side of the membrar contg. the extract substances, is an alcohol-free fruit drink or a already-fermented drink which has been freed from alcohol.

Pref. dialysate fluids are unsweetened fruit drinks or a liquor made by dialysis of a fermented drink. The dialysate liquor may be carbonated. Pref. the dialysate liquor is circulated and the dialysed alcohol is recovered from the dialysate liquor by vacuum distn.

Process is economical to operate and does not cause deleterious change in flavour of the drink, as with some prior art processes. The low-alcohol drinks are useful e.g. for drivers, diabetics, etc. (15pp)

SeeAlso

D13 BE 888943	D13 GB 1599618	D13 GB 2072679
D13 J8 1039167	D13 J8 1039628	D13 J8 1039851
D13 J8 1039852	D13 US 4291063	D15 GB 2072649
D15 J8 1039633	D15 J8 1039877	D15 US 4290891
D17 J5 6109593	D17 SU 797582	D17 US 4291123
D18 J5 6109592	D18 J8 1039183	D21 GB 1599748
D22 US 4291122	D25 NL 167993	

D17: SUGAR; STARCH

NYUY- ★ D17 D/41 ★ BR 8101-561
Conversion of cellulose residues into glucose - and process and equipment for chemical conversion of materials

NEW YORK UNIVERSITY 18.03.80-US-131340 (18.03.80-US-131339)
E13 ° (22.09.81) C13k-01/02

ZAVO/ ★ D17 D/41 ★ CS 7903-841
Saccharose extraction from vegetable material
ZAVODSKY L 04.06.79-CS-003841
(10.09.81) C13f-01

BOEF D17 00106 C/01 = EP G006-162
Xylitol recovery from residual syrups - by chromatographic sepn. and hydrolysis and hydrogenation of polysaccharide fraction

SUDDEUT ZUCKER AG 14.06.78-DE-826120
E17 (30.09.81) *DE2826-120 C07c-29/74 C07c-31/18
31.05.79 as 101686 (068JB) (G) CH-541526 DE2481800 DE2710374 US4096036 E(AT BE CH DE FR GB IT SE)
Xylitol is recovered from end syrups from xylitol crystallisation by chromatographic sepn on a weakly crosslinked, strongly acidic cation exchanger in the Ca salt form. Using delonised water as eluent the end syrup is split into two or more fractions, the 1st fraction contg. mainly polysaccharides and polysaccharide alcohols, further mixed fractions contg. pentitols and hexitols and the subsequent fraction contg. xylitol.

The 1st fraction is subjected to acid hydrolysis, the acid is removed, the resultant prod. hydrogenated and xylitol recovered by crystallisation. Further mixed fractions are subjected to further chromatographic sepn. and xylitol is recovered from a fraction contg. chiefly xylitol by evapn. followed by crystallisation.

Chromatography is pref. carried out at 85-90 deg.C and at a linear flow rate of 2-6 cm/minute. The 1st fraction is pref. hydrolysed with 0.5-1% H₂SO₄ at 100-120 deg.C for 1-5 hours. (11pp)

FIVE ★ D17 74266 D/41 ★ FR 2477-177
Extn. of sugar from suspension of bagasse in washing juice - includes passing screened bagasse through filter band press
FIVES-CAIL BABCOCK 29.02.80-FR-004532 (11.04.74-FR-012706)
(04.09.81) C13d-01/04
29.02.80 as 004532 Add to 11.4.74-012706 (448RH)
Parent patent described a process and an installation for extn. of sugar from bagasse. The installation has a diffusion stage which includes a mixing tank in which bagasse is put into suspension in washing juice. The suspension is passed through a deaerator and then via a high speed pump to a separator. Drained bagasse from

the separator is passed through a press to extract more juice and the bagasse then transferred to a subsequent diffusion stage or to a sugar cane mill.

In this addn., the press is now a filter band press, pref. corising upper and lower endless filter bands between which the bagasse is progressively squeezed as conveyed. The separator pref. comprises a perforated screen, inclined to the horizontal. The upper half of the screen is hinged to the lower half to permit relative angular adjustment.

The filter band press is less costly than cylinder presses and high pressure mills previously employed. The operating pressure is lower but can be exerted over a long, conveying path. (7pp)

MITR ★ D17 74529 D/41 ★ J5 6106-901
Prod'n. of spun or moulded prods. from chitosan - by coagulating aq. soln. of chitosan in bath contg. alkaline substance, pref. alkali metal hydroxide

MITSUBISHI RAYON KK 30.01.80-JP-009708
A11 F01 (25.08.81) C08b-37 D01f-02
30.01.80 as 009708 (173PW)
Chitosan-based spun (or moulded) prod. is produced by coagulating aq. soln. of chitosan or salt in coagulating bath composed of aq. soln. contg. alkaline substance (pref. alkali metal hydride).

The process is used to produce fibre, film, etc., from chitosan, which is obtd. by alkali hydrolysis of chitin. The alkaline coagulating bath permits decomposition of chitosan salt and coagulation of liberated chitosan in one step. Alkali salt accumulating in the bath promotes coagulation of chitosan.

In an example, an aq. dope contg. 3.0 wt.% chitosan and 0.5 wt.% acetic acid was degassed at 60 deg.C and 15 mm Hg. The dope was then extruded through orifices into 5 wt.% aq. NaOH soln. maintained at 30 deg.C. Equilibrium pH of the bath was 10.2. The filaments were passed through the bath over the length of 200 cm, at a draft of about 2.0, and then washed with water at 40 deg.C., and subsequently with boiling water. The resulting chitosan filaments had single fibre size of 3.05 denier, tensile strength 2.44 g/d, elongation 10.8% and knot strength 1.75 g/d. (3pp)

AGEN ★ D17 74929 D/41 ★ J5 6109-598
Microbial prepn. of polysaccharide - by culturing *Alcaligenes* strain in liq. medium contg. organic nutrient with pH regulated to 5.5-6.5

AGENCY OF IND SCI TECH(TOKU) 04.02.80-JP-012192
(D16) (31.08.81) C08b-37 C12p-19/04 C12r-01/05
04.02.80 as 012192 (5AS)
Polysaccharide is prepd. by culturing bacterial strain of *Alcaligenes* in a liq. culture medium contg. carbon source and inorganic nitrogen source (including urea). Improvement is that

Phytuberol, a sesquiterpene improves the taste of tobacco. By this method phytuberol is easily prepd. (3pp)

JAPM D18 82216 Y/46 = J8 1039-183
Tobacco leaves stems etc. treatment - with fermentable sugar soln. before anaerobic fermentation to preserve flavour
JAPAN MONOPOLY CORP 31.03.76-JP-034328
P15 (D16) (11.09.81) *J52120-199 A24b-03/12 + A24b-15/10
31.03.76 as 034328 (5DJ)

Tobacco leaves, stems, nipped cores, side buds etc. are cut to pieces, and 1-5% fermentable sugar is added, under anaerobic condition for preservation of flavour, in relatively short time. The grassy smelling and fishy smelling materials can be removed. The prod. is used for mfr. cigarettes etc.

The material is sealed in a bag tightly or covered with air-tight material for the anaerobic fermentation with anaerobic bacteria mainly of lactic acid bacteria such as *Lactobacillus Plantarum*. The content of the lactic acid and volatile fatty ends is increased to improve the taste and flavour of tobacco. The content of low mol. peptide and amino acids is also increased. The content of disaccharides and trisaccharides is decreased. (J52120199) (9pp)

BRTA D18 45670 U/33 = NL-167-845
Tobacco-smoke filter - contg carbonate salt and zinc oxide for removing hydrogen cyanide and hydrogen sulphide
BRIT AMER TOBACCO LTD 26.01.72-US-220743
E34 P15 (E32) (16.09.81) *DE2263-178 + A24d-03/16 B01d-25/04 B01d-39

26.01.73 as 001195 (510TM)

A filter for tobacco smoke is prepd. by (a) impregnating a fibrous substrate with a suspension of ZnO and Na and/or K carbonate, in molar ratio of 25:1-1:25 (8:1-1:5) in a plasticiser, to deposit at least 30 mmols. of the suspension on the substrate, and (b) forming filters from the impregnated material. The suspension pref. contains 90-80 wt.% of the plasticiser and 10-40% of ZnO + carbonate.

Plasticisers include triethylene glycol diacetate, ethylene citrate and glycerol triacetate. The amt. used is esp. 2-25 (3-10) mg. of ZnO + carbonate per cigarette. The dispersion is stable for at least 5 days, and can be sprayed. HCN and H₂S are selectively removed. (10pp)

BOBR = * D18 75107 D/41 ★SU-796-240
Compsn. for oiling leather - contains synthetic fat, sulphated sperm oil, spindle oil and sulphated beef fat
BOBRUISK LEATHER CO 26.12.78-SU-703381
(18.01.81) C14c-09/02

26.12.78 as 703381 (314WD)

Compsn. for oiling leather comprises (in wt. %): synthetic fat 49-51, sulphated sperm oil 18-22, spindle oil 19-21, and sulphated beef fat 8-12. Inclusion of the latter enables the amt. of sperm oil to be reduced, thus reducing cost.

In an example, a compsn. contd. the above components in a wt. ratio 50:20:20:10. Treated leather has good softness and appearance and coating films have good adhesion. Bul.2/15.1.81. (2pp)

VILJ/ * D18 75718 D/41 ★WP 8102-746
Loading hide stretching frames into drying tunnel - by elevating carriage simultaneously receiving frame from tunnel
VILJANMAA AK 20.03.80-FI-000861
(01.10.81) C14b-01/26

20.03.81 as F10022 (295AT) (E) SE-397683 DE1263979 DE2307089 N(BR) E(AT CH DE FR GB JP NL SE US)

A hide is stretched on a frame which is provided with wheels. These wheels support the frame while it is advanced through a drying tunnel by a system of rails. The feed to the drying tunnel is vertically adjacent and beneath the exit from the tunnel. A hide frame can be elevated from a loading table to the inlet to the tunnel and is advanced onto the tunnel roll by a pusher arm. Simultaneously a dried hide and frame are discharged from the tunnel onto the elevator.

The hide frame elevator includes a set of gates which allow the frame discharged from the tunnel onto the elevator.

The hide frame elevator includes a set of gates which allow the frame discharged from the tunnel to be lowered into alignment with the tunnel feed rail.

The appts. loads a drying tunnel with stretched hides. Simultaneous feeding and discharge of the drying tunnel increases the efficiency of operations. (11pp)

See Also

D13 EP--36583 D15 DE 3011844

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

HENK * D21 73865 D/41 ★DE 3009-833
Dyeing hair with azo developing dye - by applying cream contg. coupler and diazonium salt, then alkaline shampoo
HENKEL KG AUF AKTIEN 14.03.80-DE-009833
E21 (01.10.81) A61k-07/13 D06p-03/14

14.03.80 as 009833 (1251RP)

Method for dyeing hair with azo development dyes comprises applying to the hair a cream of pH about 4.5 contg. a coupler (I) and a diazonium salt (II). When the cream has penetrated the hair sufficiently, a shampoo of pH about 9 is applied to render the dye comps. on the hair alkaline so that coupling occurs. The hair is then thoroughly rinsed and dried.

(I) is imidazole; 2,4-dihydroxyquinoline; dimedone; 1,2-pyrido-4,6-dioxypyrimidine, 1,3-indanedione or esp. 2-amino 3-hydroxypyridine (Ia). (II) is pref. a stabilised monoamine deriv., and the initial cream pref. contains 0.2-10(1-5) wt. % (I) plus (II) (on the basis of the total comps.) The method is simpler (fewer stages) than the known method in which (I) and (II) are applied separately. (11pp)

FARB * D21 73880 D/41 ★DE 3010-373
Polymerisation of methyl methacrylate with enol ether - as mol. wt. regulator, avoiding mercaptan(s), esp. for dental prosthesis
BAYER AG 18.03.80-DE-010373
A14 E15 (A60 A96) (01.10.81) C08f-20/14

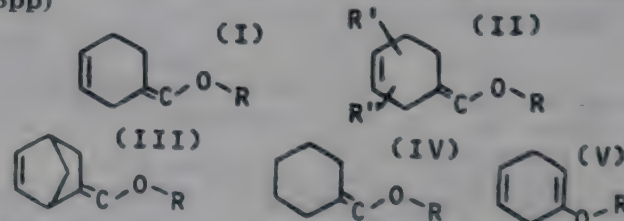
18.03.80 as 010373 (510RH)

Methyl methacrylate is polymerised, or copolymerised with up to 25 wt. % of a vinyl monomer, in presence of 0.01-10 (0.05-1) wt. % of an enol ether from a (cyclo)aliphatic aldehyde or ketone.

The enol ether acts as mol. wt. regulator, avoiding the smell and oxidisability of mercaptans. The ether also acts as heat

stabiliser in the polymer. The polymer is esp. used for injection moulding, partic. for prodn. of dental prostheses by the powder/liq. process.

Claimed co-monomers are 2-20C alkyl methacrylates, 1-20C acrylates, styrene and 1-4C alkyl-substd. styrenes, and (meth)acrylonitrile, pref. 2-15C methacrylates and/or 1-8C acrylates. Pref. enol ether is of formulae (I)-(V) where R' and R are H or 1-5C alkyl; and R is 1-20C alkyl, 5-10C cycloalkyl, or 7-20C aralkyl. (23pp)



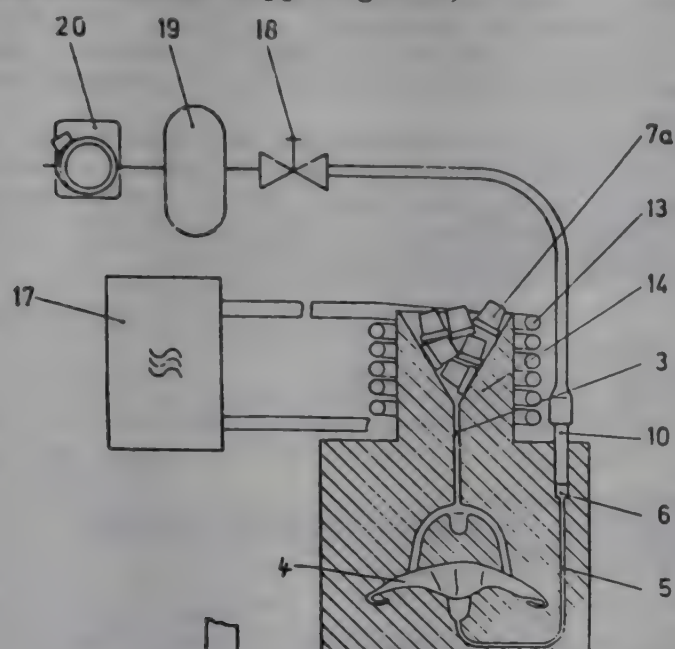
BEGO- * D21 73915 D/41 ★DE 3011-098
Precision casting, esp. of metal dental prostheses - where vacuum is suddenly applied to mould cavity so dense castings with fine surface detail are obtd.

BEGO BREMER GOLDSCH 22.03.80-DE-011098
M22 S05 P32 P53 (01.10.81) A61c-13/20 B22d-18/06
22.03.80 as 011098 (1144RH)

The process and plant consists of a mould with a runner funnel, in which a mouldable or castable mass, esp. a metal or alloy, is placed. The funnel stem forms an ingate leading to a mould cavity which has a small dia. pipe in its base. After the castable mass has been melted, a vacuum is suddenly applied to the small dia. pipe via a vacuum reservoir, so the melt flows into the

...vity at high speed.
A pref. mould includes a runner funnel surrounded by an induction heating coil employed to melt metal in the funnel. The small dia. vacuum pipe is not wide enough so it is entered by the molten metal but this pipe may also be surrounded by a cooling oil.

A simple appts. with low energy consumption, where the porosity of the mould has no significant affect on the vacuum due to the use of a reservoir. (21pp Dwg.No.5)



HENK ★ D21 73955 D/41 ★ DE 3011-549
Hair and body cleaning compsn. - contg. equal amts. of 12 carbon and 14 carbon alkyl ether sulphate cpds., with reduced irritation towards skin and mucosa

HENKEL KG AUF AKTIEN 26.03.80-DE-011549
E17 (01.10.81) C11d-01/14
26.03.80 as 011549 (1251HM)
Compsn. for washing the hair or body contains a mixt. of 50 wt.% 12C alkyl ether sulphate (I) and 50 wt.% 14C alkyl ether sulphate (II) with 1-5(2-4) ethylene oxide gps. as the ester component. Pref. the mixt. of (I) and (II) represents 1-40 (5-25) wt.% of the compsn. Opt. the compsn. also contains 0.1-20 (0.5-5) wt.% of a betaine, esp. an 8-18C alkyl dimethylcarboxymethylbetaine and/or a 12-18C alkylamidopropyl dimethylcarboxymethylbetaine, as amphoteric surfactant.

These compsns. have better compatibility towards the skin and mucosa compared with the standard 70% (I)-30% (II) formulations, without redn. in cleaning effect. (11pp)

GCDE- D21 05690 C/04 = DS 2926-405
Dental silicone compsns. curable at room temps. - for taking impressions to obtain plaster models

G-C DENTAL IND CORP 30.06.78-JP-078745
A96 P32 (01.10.81) *DE2926-405 A61c-09 C08k-03/08 C08l-83/04
29.06.79 as 926405 (481JR)
Dental silicone material (I), hardenable at room temp., contains (a) an organopolysiloxane contg. at least 2 vinyl gps., (b) an organohydrogen-polysiloxane contg. H atoms bonded on at least 2 Si atoms, (c) a catalyst for accelerating the addn. reaction of the H atoms bonded on the Si atoms, with the vinyl gps. and (d) hydrophobic fillers opt. with customary additives.

(I) also contains (e) 0.5 ppm or more of finely-divided Pd and/or Pd alloy contg. 10 wt.% or more Pd, based on the total amts. of (a) to (d).

(I) is used by separately storing (b) and (c) and admixing the other components (a), (d) and (e), in any sequence, before or during use. PS (5pp)

PENT- D21 32557 D/18 = EP -36-415
Freeze dried collagen prod. for medical or cosmetic use - heat treated or treated with gaseous hydrogen halide after freeze drying

PENTAPHARM AG 08.10.79-CH-009030
B04 (D22) (30.09.81) *WP8100-963 A61k-37/12 C08h-01 C09h-01
17.09.80 as 901717 Based on WP8100963 (1251HM) (G) US4066083
DE2625289 DE1692548 FR2369329 GB1144552 FR2108068 DS-673203 E(FR)

A collagen prod. (A) is made by first comminuting appropriate animal tissue at not over 40 deg. C, then repeatedly treating with 5 vol.pts. 5-15wt.% aq. NaCl soln. contg. 0.2-1 wt.pt. NaN₃ preservative per 1000 wt.pt. soln. and 0.5-2wt.pt. nonionic wetting agent (capable of emulsifying fats). The resulting fibrous prod. is free of fat and unwanted water-soluble non-collagen components and is washed with water or 0.1-0.5% formic, acetic or citric acid.

The prod. is treated for 8-48 hr. at pH 2.5-3.5 in 5 vols. 0.1-5% aq.

acetic acid contg. 1wt.pt. pepsin per 1000 wt.pt. starting tissue to remove non-collagen proteins and telopeptides. The resulting collagen suspension is pptd. by adding NaCl to 3.5%, and the prod. desalted by ultrafiltration, dialysis or washing with aq. 60-75% ethanol. It is then dissolved in demineralised or distilled water contg. up to 3wt.% volatile, strong, organic acid to give a soln. of collagen concn. (dry residue) 0.5-2wt.% which is freeze-dried then sterilised.

The new feature is that after freeze-drying but before or after sterilisation, the prod. is heat treated or treated with gaseous hydrogen halide.

(A) is useful for medical or cosmetic uses e.g. care of wounds; for filling pathological cavities in bones, and in skin care formulations. The new treatment, step improves physico-chemical and mechanical properties, esp. absorption capacity and wet strength; while simultaneously reducing the germ count. (A) can absorb 50-100 times its own wt. of water in 1 min. (18pp)

WURT- ★ D21 74033 D/41 ★ EP -36-439
High-foaming tooth-paste esp. with optical cleaning control - contg. gelatin or gelatinous protein deriv. replacing part of surfactant

WURTTENBERG PARFUM 26.03.80-DE-011618
(30.09.81) A61k-07/16
02.09.80 as 105200 (200BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)
In a new tooth-paste compsn. having high foaming capacity, a part of the tenside is replaced by gelatin, (IA), or gelatinous protein prods. (IB).

(IA) or (IB) are esp. cold-soluble gelatins or cold-soluble acid gelatin hydrolysates. Tooth-pastes having optical cleansing control contain sufficient dyestuffs so that, on brushing the teeth uninterruptedly, an initial coloured foam formed is brightened by a brightness difference L of 10-30 (15-25) (where L is 0 corresponds to black and L is 100 corresponds to white) not before 20 secs. or more and is discoloured to the only white or only black foam.

On adding 1-10 (2-7)% (IA) or (IB), the tenside content can be reduced to 1-2.5% without lowering foaming capacity. In a tooth-paste having optical cleansing control, discolouration effects achieved are identical. (IA) or (IB) addn. lowers the negative effects of tensides on mouth mucous membrane and of wetting agents on tooth-paste taste. (13pp)

DEGS D21 70058 D/39 = EP -36-556
Gold-free cobalt-chromium-palladium alloy - esp. for dental uses, having good adhesion to fired ceramic coatings

DEGUSSA AG 13.03.80-DE-009650
M26 (30.09.81) *DE3009-650 C22c-05/04 + A61k-06/04 C22c-30
10.03.81 as 101746 (1501HM) (G) DS-684186 DS1533234 DS-714820 E(CH FR GB IT LI SE)

A gold-free alloy, for receiving fired-on ceramic coatings, esp. for dental applications, has the compsn. (by wt.) 1-70 (pref. 5-40)% Pd, 0.1-35 (pref. 3-25)% Cr, balance Co. The alloy pref. also contains up to 1% B, up to 20% Mo and/or W and up to 8% Sc, Y, La and/or other rare earths.

The alloy contains no toxic components, is corrosion resistant, has a relatively low m.pt., does not discolour fired ceramic coatings and ensures good adhesion of such coatings.

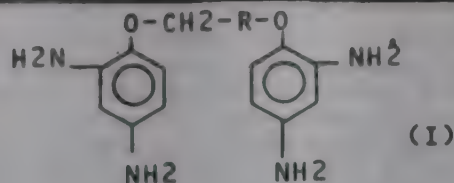
The higher Pd content alloys pref. also contain up to 5% Al, Si, Sn, In and/or Ga. The preferred alloy has the compsn. 25-35% Pd, 5-15% Cr, 5-15% Mo and/or W, 2-6% Ce, 0.2-0.8% B, balance Co. (11pp)

HENK ★ D21 74093 D/41 ★ EP -36-591
Oxidn. hair dyes contg. bis-(2,4-di:amino-phenoxy-alkanol coupler - prepd. by reacting 2,4-di:nitro-phenol with 1,4 di:bromo-butane-2,3,-diol 1,3- or 2,3-di:bromo propanol and hydrogenation

HENKEL KG AUF AKTIEN 22.03.80-DE-011191
E24 (30.09.81) A61k-07/13 C07c-93/14
14.03.81 as 101901 (200RH) (G) DE2737138 DE1719381 EP--11844 E(AT BE CH DE FR GB IT LI LU NL SE)

New bis-(2,4-diaminophenoxy)-alkanols have formula (I) (where R is a -CHOH-CH₂-, -CH(CH₂OH)- or -CHOH-CHOH-CH₂- gp.). (I) are prepd. in 2 steps. In the 1st step, (i), 2,4-dinitrophenol is reacted with a dibromoalkanol having formula Br-CH₂-R-Br. In the 2nd step, (ii), the bis-(2,4-dinitrophenoxy)-alkanol obtd. is catalytically hydrogenated to (I).

The use of (I) and their salts, with inorganic or organic acids, as coupler components in oxidn. hair dyes is claimed. Strong, fast red-brown to blue-black shades can be obtd. (I) are water-soluble, resist storage, are non-toxic and do not irritate the skin. The dyeings can be stripped with reducing agents. (17pp)



VBUU/ ★ D21 74153 D/41 ★ EP --36-698
Eye make-up compsn. - contg. inorganic cpds. as binding agent
VAN BUUREN C 25.03.80-NL-001753
E33 (30.09.81) A61k-07/03

23.03.81 as 200322 (478HM) (E) US3800034 DS2540877 US1968475 FR-451512 FR-603263 FR-972465 FR-504050 1.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Eye make-up compsn. contains an inorganic binding agent (I). Pref. (I) is a CaSO₄ deriv. (hemi- or di-hydrate etc.) including plaster (gypsum-cement), calcinated prods. of mineral mixts. (mostly CaSO₄), or prods. obtd. by burning stones or rockets. Compsn. is wetted with a polar wetting agent (esp. H₂O) to become a pourable suspension which is then cast in moulds and allowed to set. Compsn. contained plaster (10 pts.), pigment (2 pts.), TiO₂ (10 pts.), timica (30 pts.), viscous oil (15 pts.), and H₂O (55 pts.).

Use of (I) allows a make-up compact or disc to be prepd. without the use of high pressures, and the formed discs don't fall out of the containers, etc. In addn., binding agents such as microcellulose are not needed. (8pp)

COLG D21 71767 B/40 = GB 1599-689
Dentifrice paste compsn. contg. calcium carbonate - with lauryl sulphate, avoiding grain formation on ageing

COLGATE PALMOLIVE CO 25.05.78-GB-022475
A96 E19 (A25 E33) (07.10.81) *BE-876-425 A61k-07/16
25.05.78 as 022475 (963PW)

Dental cream compsn. comprises 20-75wt.% CaCO₃ polishing material and 0.1-5wt.% of a surfactant including sodium lauryl sulphate (I) having a broad distribution of alkyl gps. from 10-18C, the 12C content being 40-70wt.%, and 0.2-1wt.% of an M₄ pyrophosphate (II) where M is alkali metal or ammonium. Pref. cream contains 40-55wt.% polishing agent and at least 95wt.% of polishing material is CaCO₃.

Pref. distribution of alkyls in (I) is 1-8% C₁₀, 40-70% C₁₂, 13-30% C₁₄, 5-16% C₁₆ and up to 23% C₁₈, the alkyls being linear. Pref. (II) is tetrasodium pyrophosphate.

Cream has smooth texture with little tendency to form grains, partic. upon ageing at low temps. (4pp)

COLG D21 71767 B/40 = GB 1599-690
Dentifrice paste compsn. contg. calcium carbonate - with lauryl sulphate, avoiding grain formation on ageing

COLGATE PALMOLIVE CO 25.05.78-GB-022475 (00.00.80-GB-030375)
A96 E19 (A25 E33) (07.10.81) *BE-876-425 A61k-07/16
25.05.78 as 030375 80 Div ex 1599689 (982PW)

Dental cream compsn. comprises 20-75(40-55)wt.% of a CaCO₃ polishing material and 0.1-5wt.% of a surface active material including Na lauryl sulphate having a broad distribution of 10-18C alkyl gps., the 12C content being 40-70wt.%, and 0.2-1wt.% of an additive which is an anionic phosphate ester comprising a mixt. of formula (I) and a diester of formula (II) (where M is H, alkali metal or ammonium; R is 10-20C alkyl; and n is 1-6).

Pref. at least 95wt.% of the polishing material is CaCO₃. The distribution of alkyl gps. is 1-8% of 10C alkyl, 40-70% of 12C alkyl, 13-30% of 14C alkyl, 5-16% of 16C alkyl and up to 23% of 18C alkyl.

Compsn. is smooth and does not form grains. (4pp)



FRRR D21 58290 B/32 = GB 1599-748
Anticariogenic foods and pharmaceuticals - contg. lactate dehydrogenase and sucrose inverting enzyme esp. fructosidase or glucosidase (PT 24.4.79)

FERRERO OHG 31.01.78-DE-804093
B06 (D16) (07.10.81) *DE2804-093 A61k-07/28
31.05.78 as 025536 (964TM)

Oral or edible compsn. contains a sweetening agent and very little water, and has a content of the enzymes lactate dehydrogenase and saccharose-inverting enzyme which limits promotion of tooth decay by preventing formation of cariogenic decomposition prods. or of prods. promoting caries. Pref. the compsn. further contains hydrogen acceptor to intensify the effects of lactate dehydrogenase. Pref. the saccharose inverting enzyme is beta-fructosidase or alpha-glucosidase.

The compsn. is produced by adding the enzymes to the sweetener at pH 7.7 (4.7-5.3) at 30-50 deg.C. Specifically the

compsn. is a food or oral compsn. for food and mouth care. (8pp)

BUTL/ ★ D21 74315 D/41 ★ GB 2072-567
Making investment casting form - partic. for dental crown using shaped plastic sheet and hardenable precursor material

BUTLER M P 25.03.80-GB-010064
A32 M22 (A96) (07.10.81) B29d-31
25.03.80 as 010064 (1358AS)

A form is made by shaping a sheet and placing around a layer of deformable hardenable material, applying compression to deform the material, hardening to form a precursor, removing the sheet and using the precursor to form a second sheet into desired shape.

The sheets are pref. of polyethylene or polypropylene and the first may be deep-drawn. Wax may be added to the second formed sheet to give the final shape. The hardenable material is pref. cold-curing elastomer, e.g. Impregum. The method is partic. for making a gold crown for a tooth. (6pp)

PIRS ★ D21 D/41 ★ IT 1051-551
Talc contg. soft silicone gel
PIREAR SA 19.05.65-IT-011033
A96 E36 (20.05.81) A61k

PREP ★ D21 D/41 ★ IT 1051-725
Baldness curing compsn.
PREPHAR PROSPN RES SA 29.04.65-IT-009662
B05 (20.05.81) A61k

KANE ★ D21 74596 D/41 ★ J5 6106-999
Storage stable cream cleansing agent - contains N-acyl N-methyl taurinate, N-acyl glutaminate, higher fatty acid, polyethylene glycol, fatty acid alkanol:amide and water
KANEBO KK 28.01.80-JP-008908
A96 E19 (25.08.81) A61k-07/02 C11d-01/02 C11d-03/16
28.01.80 as 008908 (126RP)

The cleansing agent consists of (a) N-acyl, N-methyl taurinate (salt) of formula RCON(CH₃)CH₂CH₂SO₃A (where R is 8-18C alkyl or alkenyl; A is Na or K), in 1-10wt.% content, (b) N-acyl glutaminate(salt) of formula RCONHCH(CH₂CH₂COOM₂)COOM (where R is 7-21C alkyl or alkenyl; M₁ and M₂ are cations derived from H, alkali metal, or alkanolamine) in 1-25wt.% content, (c) higher fatty acid (9-20C (un)satd. fatty acid), in 0.5-5wt.% content, (d) polyethylene glycol of formula HO(CH₂CH₂O)_nH (where n is an integer between 2-100), in 1-15wt.% content, (e) fatty acid alkanolamide of formula RCONAA' (where R is 6-22C alkyl or alkenyl; A is H or -CH₂CH₂OH or -CH₂CH(OH)CH₃; A' is -CH₂CH₂ or -CH₂CH(OH)CH₃), in 0.5-10wt.% content, and (f) water, in 23-94wt.% content.

The cleansing agent has an acidic pH and white cream-like appearance. Since its viscosity is always moderate, it is easily taken out of the vessel and easily extensive. It is quite stable for a long preservation. No stimulating effect is imparted to the skin. Comfortable slippery feeling, satisfactory frothing effect, and superior washing effect are obtd. (6pp)

SHIS ★ D21 74697 D/41 ★ J5 6108-703
Mfg. powder-type cosmetic material - by forming slurry with volatile solvent of B.P.T. below 200 degrees C and then evaporating off solvent
SHISEIDO KK 29.01.80-JP-008959
(28.08.81) A61k-07
29.01.80 as 008959 (5DH)

Mfr. involves putting powdery cosmetic in vessel and moulding it, and is characterised by mixing the powdery cosmetic with a volatile solvent of b.pt. below 200 deg.C, putting the thus obtd. slurry in the vessel and drying it by vapourising off the solvent.

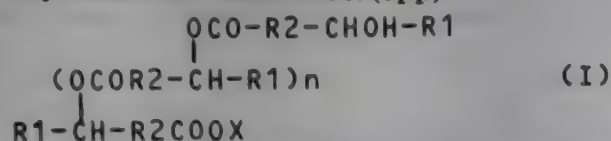
As the volatile solvent, ethanol, isopropanol, isoper (RTM, Humble Oil and Refining Co) etc. can be used. Volatile solvent is used 50-150% based on amt. of powdery cosmetic and the mixt. is stirred, degassed, charged to vessel and dried. By the method the solid powdery cosmetic in vessel can be prepd. easily without a pressing process which has been required by conventional method and has caused caking of the cosmetic. The obtd. solid cosmetic (e.g. solid face powder, eye shadow, rouge, mascara, etc.) is porous, can be well adhered to a puff and does not suffer from caking. (3pp)

NISW ★ D21 74716 D/41 ★ J5 6108-739
Oligo-esterified prods. of 12-hydroxy-stearic acid - and/or ricinoleic acid, useful as oily bases for cosmetics
NISSHIN OIL MILLS KK 31.01.80-JP-009318
E19 (28.08.81) A61k-07/40 C07c-69/67
31.01.80 as 009318 (75RH)

Intermolecular oligoesterified prods. of 12-hydroxy-stearic acid and/or ricinoleic acid of formula (I) where X is H or alkali metal

or amine cpds., R1-CH-R2- is alkyl residue of 12-hydroxy stearic acid or ricinoleic acid, and n is 0 or an integer and/or alkali metal salts and/or amine salts are new. Cosmetics contg. one or more of the above-mentioned esterified prods. as the oily base are also claimed.

The cpds. are pale yellow and odourless. They do not irritate the skin, showing excellent affinity to the skin. They are synthetic oils being hydrous. They possess properties making them suitable as oily bases for cosmetics. (5pp)



SNKM ★ D21 74764 D/41 ★ J5 6108-849
Nickel alloy for dental use - contains chromium, copper manganese, aluminium, silicon and zirconium etc.

SANKIN KOGYO KK 31.01.80-JP-010890

M26 (28.08.81) A61k-06/04 C22c-19/05

31.01.80 as 010890 (53DH)

Dental casting Ni-base alloy, consists of Cr 7-30%, Cu 3-25%, Mn 5-30%, Al 0.1-4%, Si 0.1-4%, additional at least one of Ga, , 0.5-10%, Ge 0.5-10%, Nb 0.5-5% and Zr 0.5-5%, and the balance Ni with incidental impurities.

The Cu prevents the Ni base alloy from oral discolouration or corrosion and retains its Vicker's hardness to less than 250. The Cu lowers the m.pt. of the alloy to below 1200 degrees.C together with Mn, Al, Ga, Ge, Nb and Zr. The Al also serves to prevent surface of the casting from being seized with the embedded material and from producing an oxidised film. Contraction ratio of the alloy being cast is sufficed by the addition of Cr, Si, Nb and Zr. (4pp)

AJIN D21 39646 B/21 = J8 1039-284
Hair tonic - contains acetyl methionine, serine, pyridoxine and pyridoxal-phosphoric acid or pyridoxamine phosphoric acid

AJINOMOTO KK 22.09.77-JP-114261

B05 C03 E19 (11.09.81) *J54046-843 A61k-07/06

22.09.77 as 114261 (5HM)

The hair tonic contains acetylmethionine and serine as the major ingredients and pyridoxine, pyridoxal-phosphoric acid or pyridoxamine-phosphoric acid as the aid. The tonic shows hair-growing activity on human beings and on rabbits, foxes, minks, sheep, etc. It improves the glossiness of hair of above animals, cattle, pets, etc.

Usually the same amt. of acetylmethionine and serine are mixed and the mixture is combined 0.05-5 w/w% in the solvent such as water, 1-4C aliphatic alcohol or their mixt. The aid is combined 1-50 w/w% on the sum of acetylmethionine and serine and may be used in the form of alkali salt. (J54046843) (3pp)

DOW D21 80048 A/44 = NL-167-982
Emulsions of polar liq. in methyl-siloxane fluid - contg. polysiloxane-polyoxyalkylene copolymer and surfactant

DOW CORNING CORP 27.07.77-US-819210

A96 C03 (A26) (16.09.81) *US4122-029 B01f-17 C07f-07/21 C08g-77/46 C08j-03/02 C08l-83/04

26.07.78 as 007912 (922TM)

Emulsions are claimed of a polar fluid (I) in a non-polar fluid (II) comprising (a) 1-70 wt.% (I) as the disperse phase, (b) 17-97.5 wt.% (II), as the continuous phase. (II) has a viscosity of not greater than 100 mPa.s at 25 deg.C and consists of a liquid polymethylsiloxane of repeating unit $(\text{CH}_3)_2\text{SiO}((4-a)/z)$ (where a is 2-3) and/or a liquid paraffinic hydrocarbon, (c) 0.5-3 wt.% of an organic w/o detergent having an HLB of 2-10 and (d) 1-10 wt.% of a polydiorganosiloxane-polyoxyalkylene block copolymer contg. at least one polydiorganosiloxane block whose repeat unit is $\text{RbSiO}(4-b/z)$.

In the formula b is 0-3 and has an average of 1.9-2.1 R gps. per Si atom taking the polymer as a whole, R being (m)ethyl, vinyl, phenyl or a divalent radical with at least 95% of the R being methyl, and at least one polyoxyalkylene block having a m.wt. of at least 1000 and comprising 0-50 mol.% polyoxypropylene and 50-100 mol.% polyoxyethylene, with at least one end of the polyoxyalkylene block bonded to a polydiorganosiloxane block and the end not bonded thereto satd. with an end gp. The wt. ratio of the polydiorganosiloxane:polyoxyalkylene blocks is 2-8:1.

These emulsions, e.g. contg. an insecticide or an anti-perspirant, may be diluted with gasifying alkanes and are thus suitable for aerosols. (7pp)

HISM

D21

03426 B/02 = SU-797-570

4-Iso:hexyl-cyclohexane-carboxylic acid derivs. - useful as pharmaceuticals, surfactants, lubricant additives, plastic additives, rust inhibitors, emulsifiers etc.

HISAMITSU PHARM KK 16.06.77-JP-072639

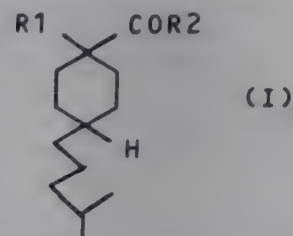
A60 B05 E19 (D25) (15.01.81) *NL7804-192 C07c-61/08 C07c-67/14

29.04.78 as 615705 (367GW)

Cyclohexane- carboxylic acid derivs. of formula (I) are new: (where R1 is H or Me; R2 is OH, 1-6C alkoxy or an amino acid residue; but R1 can only be H when R2 is an amino acid residue).

(I) are useful as (i) pharmaceuticals with antiallergic, anti-inflammatory, anti-ulcer, antibacterial and antithrombotic activity and for improving hepatic function, (ii) surfactants useful in toothpastes, cosmetics, detergents, etc., as lubricant additives, rust inhibitors, plastics additives, emulsifiers, etc.

A typical cpd. is trans-4- isohexyl-1- methylcyclohexane-carboxylic acid. In an example, this is prepd. by hydrolysis of the corresp. methyl ester. Bul.2/15.1.81. (8pp)



NEUT- ★ D21 75551 D/41 ★ US 4290-904
Transparent, solid, low alkalinity soaps - contg. tetrakis-(hydroxyalkyl)-ethylene di:amine

NEUTROGENA CORP 01.12.80-US-211557

E16 (22.09.81) C11d-09/30 C11d-10/06 C11d-17

01.12.80 as 211557 (478HM)

Transparent solid, low alkalinity soap compsn. contains (by wt.): (a) 10-30% of a Na soap (I) prepd. by saponification of fatty oils; (b) 5-20% of a tetrakis-(hydroxyalkyl)-ethylene diamine

$((\text{HO-CHR-CH}_2)_n)_2\text{-N-CH}_2\text{CH}_2\text{-N}((\text{CH}_2\text{CHR-OH})_n)_2$ (II) - formulae R is H or 1-4C alkyl; n is 1-4.

Prefd. (II) is 'Quadrol' (RTM). (I) is pref. prepd. by saponification of a fatty oil contg. 10-30 wt.% castor oil, tallow and coconut oil (wt. ratio tallow:coconut oil / 50-85:15-50) with NaOH. (III) is pref. propylene glycol (which is pref. present during the saponification step). (IV) is pref. stearic acid contg. up to 4 wt.% of oleic acid; amt. of (IV) used is 6-16%, pref. 12-14% by wt. of final soap wt.

Use of (II) affords a non-alkaline, solid, safe transparent soap which has good bar soap characteristics, and which maintains its transparency as it ages. (5pp)

OREA D21 90506 C/51 = US 4290-856
Surface active cyclic polyether derivs. - are 11-hydroxy-undecylthiomethyl derivs. of epihalohydrin tetramers of use in cosmetic, pharmaceutical, etc. industries

L'OREAL SA 13.07.78-FR-021081

A25 B03 E13 (A87 A97) (22.09.81) *EP---7-097 C07d-323

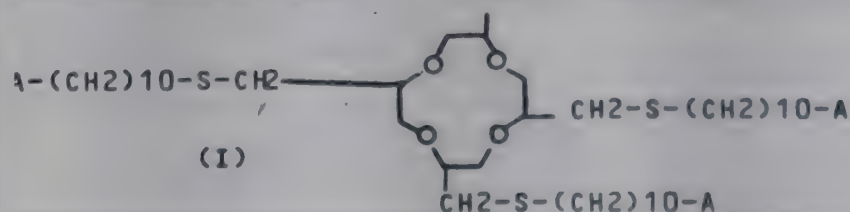
10.07.79 as 056204 (924PW)

Tensio-active cyclic polyethers of formula (I) are new. In (I) A is cationic, anionic, zwitterionic, non-ionic, hydrophile block including amine, ammonium, ammonio alkyl, carboxylate, ammonio alkyl sulphonate, carboxylic amide, (thio) ether, hydroxy, carboxylic ester or carboxylic acid gps.

(I) are prepd. by reaction of alcohol or undecylenic acid with thioacetic acid, saponification with alkaline base, reaction of prod. with tetramer of epichlorohydrin or epibromohydrin, reaction of mesylate or tosylate of resultant with dimethylamine or methylethanolamine, followed by polyaddn. reaction with ethylene oxide and/or glycidol oxide.

(I) are suitable for use in cosmetic, textile, insecticide and similar industries. (12pp)

$\text{CH}_2\text{-S-(CH}_2\text{)}_{10}\text{-A}$



OREA D21 07814 C/05 = US 4290-974
UV radiation-absorbing 3-para-oxybenzylidene-2 bornanone deriva. - used in anti-sunburn cosmetic compsns. and prepd. from aromatic aldehyde and bornanone deriva. (BE 10.1.80)

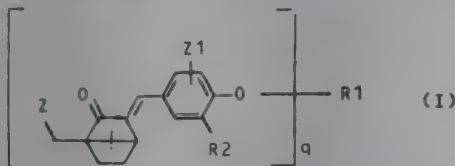
L'OREAL SA 11.07.78-FR-020701

E14 (22.09.81) *DE2927-820 C07c-49/57 C07c-143/36
10.07.79 as 056262 (918PW)

Oxybenzylidene-boranones of formula (I) are new. Z and Z' are each H, SO₃H or a salt with an inorganic or organic base (at least one is H). R₁ is H, 2-18C alkyl (when R₂ is other than alkoxy), 1-18C alkyl (when R₂ is alkoxy) R₂ is H, 1-4C alkoxy or divalent radical - O- bonded to R₁ if the latter is also divalent. If R₁ is H, R₂ is also H. q is 1 or 2 if q is 2 R₁ is divalent radical. When q is 1 at least one of Z, Z', R₁ and R₂ is not H, when Z and Z' are both H. R₁ is not -CH₂- when R₂ is -O-.

8 cpds. are specifically claimed including 3-(3', 4'-dimethoxybenzylidene)-bornan-2-one.

Cpds. can be used in cosmetic compsns. providing protection against actinic rays. (14pp)



DENT-★ D21 75595 D/41 ★US 4291-017
Reducing adherence of plaque to teeth - using dentifrice contg. titanium tetrafluoride and either xylitol or saccharin

DENTAL CONCEPTS INC 19.11.79-US-095699

B06 E32 (B05 E13 E17) (22.09.81) A61k-07/18

19.11.79 as 095699 (914BJ)

The adherence of plaque to teeth is reduced by application to the teeth of a dentifrice contg. 0.001-0.05 wt.% titanium tetrafluoride and either at least 0.05 wt.% xylitol or at least 0.01 wt.% of saccharin. Pref. the dentifrice is in liq. form and the process includes the step of cavitating the compsn. while it is in contact with the teeth. Cavitation may be effected by an ultrasonically vibrating probe inserted into the mouth and into contact with the dentifrice.

The compsn. reduces the cohesiveness of bacterial plaque and the adherence of the plaque to the teeth. It is postulated that the TiF₄ attaches to the receptor sites on the bacteria to reduce the ability of the bacteria to attach to each other or to tooth enamel. The xylitol or saccharin component acts synergistically with the TiF₄.

Apart from being in the form of a cavitation fluid, the compsn. may also be provided as a toothpaste, toothpowder, mouthwash, chewing gum, etc. (4pp)

KANE D21 65092 B/36 = US 4291-018
Lipstick having core and sheath - with different compsns. disposed concentrically

KANEBO KK 23.02.78-JP-020150

A96 E17 (22.09.81) *GB2014-852 A61k-07/02

21.02.79 as 013372 (918TM)

Core-sheath type lipstick comprises compsns. A and B arranged in core-sheath relationship. A consists of a homogeneous mixt. of (i) 55-75 wt.% low-viscosity cpd. of viscosity less than approx. 80 centipoises at 36 deg.C, (ii) 8-28 wt.% cpd. with viscosity approx. 200 centipoises at 36 deg.C and (iii) 17-30 wt.% waxy cpd. solid at 36 deg.C. B consists of a homogeneous mixt. of (iv) 50-75 wt.% (ii), (v) 15-30 wt.% (iii) and (vi) 5-20 wt.% (i).

A and B comprise 77-100 wt.% of the mixts. and have m.pt. 60-75 deg.C, the temp. differences being 0-5 deg.C. The wt. of core compsn. to that of the sheath being wt. ratio 1:2 to 2:1. The low viscosity oily ingredient is pref. mineral oil, squalene, isopropyl palmitate or myristate etc.

Lipstick causes no tacky or disagreeable feel, spreads well with a light touch, adheres evenly and gives protection. Compsn. provides good gloss, clarity, hue and colour development. (10pp)

USDA ★ D21 75604 D/41 ★US 4291-041
Insect repellent contg. (2,2,1)hept-5-en-2-yl carboxamide(s) - used esp. for controlling ticks, chiggers, cockroaches, mosquitoes, stable flies, deer flies, black flies and sand flies

US SEC OF AGRICULTURE 02.02.79-US-008814

B05 C03 F06 (D22) (22.09.81) A01n-43/40 C07d-295/18

02.02.79 as 008814 (916NS)

Insect repellent compositions contain a cpd. (I) of formula (R₃)-(CH₂)_nCON(R₁)(R₂) (I) as active ingredient:- (where R₃ is 2-R-cyclohexyl, 2-R-cyclohex-4-enyl or 3-R-bicyclo (2,2,1) hept-5-en-2-yl; R is H or lower alkyl; n is 0, 1, 2 or 3 and N(R₁)(R₂) is piperidino, 2-, 3 or 4-methylpiperidino, 2-ethylpiperidino or 2,6-dimethylpiperidino with the proviso that when n is 0, R₃ is bicyclo (2,2,1) hept-5-en-2-yl and N(R₁)(R₂) cannot be piperidino). Cpd. (I) where n is 0, R₃ is 3-lower alkyl-bicyclo (2,2,1) hept-5-en-2-yl and N(R₁)(R₂) is piperidino are new.

(I) are prepd. by reacting (R₃)(CH₂)_nCOCl with HN(R₁)(R₂). (9pp)

LIFE-★ D21 75605 D/41 ★US 4291-045
Inhibition of Streptococcus mutans in the oral cavity - by using chewing gum etc. contg. saccharin or its salts

LIFE SAVERS INC 23.05.80-US-152886 (04.05.76-US-683108)

B02 (22.09.81) A61k-07/16 A61k-09/68 A61k-31/42

23.05.80 as 152886 (1248RP)

Inhibition of the growth of Streptococcus mutans is effected by contact with saccharin (I) or its Na, NH₄ or Ca salts. The (I) or its salts is included in a carrier e.g. to form a food, confection, chewing gum, dental tablet, cream, paste, beverage etc. for oral use in inhibiting growth of Strep. mutans in the mouth, so that formation of dental plaque and tooth decay are largely prevented.

The (I) is pref. mixed with a carrier to give a concn. of 0.008-1% esp. 0.06-0.4%, so that small amts. of (I) are present in the saliva over prolonged periods, e.g. 1-300mg. over 5-30 mins. or as a peak for 1-4 mins. The (I) or its salts can be in prolonged release form. (7pp)

PHAR- D21 03897 C/03 = US 4291-062
Topical or rectal compsns. contg. medicament - together with urea adduct and solid powder

PHARES PHARM RES NV (REPH) 16.06.78-GB-027115

B07 (22.09.81) *EP---6-724 + A61k-31/17

15.06.79 as 049057 (974TM)

Novel pharmaceutical compsns. comprise (a) an effective concn. of a medicament; (b) 5-40% of small particles of an inclusion opd. of urea with at least one 4-30C straight chain aliphatic cpd.; (c) up to 50% of a powder that is inert to and insoluble in (a), (b) and (d), and (d) 25-90% of a carrier material which does not dissolve or react with (a), (b) or (c). Components (a), (b) and (c) are dispersed in (d). Compsns. opt. contain a thickening agent.

Compsns. have good storage stability and a smooth texture. They can be applied topically or as suppositories. (5pp)

PENN ★ D21 75687 D/41 ★WP 8102-670
Dentifrice compsns. contg. abrasive - comprising calcined magnesium silicate material

PENNWALT CORP 17.03.80-US-131266

E33 (01.10.81) A61k-07/16 C09k-03/14

13.03.81 as U00323 (367AS) (E) US3105013 US4122163 US4108979 US4108981 US3450813 US4064231 US3855147 US2059396 US2216821 US2384563 US1943856 DS1292468 US1049005 US1087705 US2625514 US2943982 US3966432 US4038380 US4169796 US4181633 E(DE FR GB)

Dentifrice compsns. contain particles of a calcined Mg silicate material (I) as the principal cleaning and polishing component. (I) is predominantly in metasilicate form and is obtd. by calcining smectite, sepiolite, chlorite, mica, hectorite, montmorillonite, bentonite, saponite, meerschaum, talc, phlogopite, colloidal Mg silicate, Mg trisilicate or amorphous hydrous Mg silicate. The particle size is less than 149 micron, with a median particle size of 10-40 micron.

(I) has a good cleaning and polishing effect, causes less scratching than other abrasives, and is compatible with anticariogenic fluorides. (35pp)

See Also

D13 EP--36583 D22 J8 1039281 D25 J8 1039318

BADI ★ D22 73933 D/41 ★ DE 3011-258
Fungicides contg. 1,2,4-triazole derivs. - including new 1,2,4-triazol-1-yl-3-butanone cpds., used e.g. as wood preservative and additives for paint and PVC

BASF AG 24.03.80-DE-011258

A60 C02 E13 (01.10.81) A01n-43/64 C07d-249/08

24.03.80 as 011258 (367NS)

New fungicidal compsns. contain 1-(CHR2-CHR3-XR1)-1,2,4-triazoles of formula (I) or their salts or metal complexes (where R1 and R2 are 1-6C alkyl, naphthyl, or phenyl opt. substd. by F, Cl, Br, 1-4C alkyl or 1-4C alkoxy; R3 is 1-4C alkyl, or a benzyl or phenyl gp. opt. substd. by F, Cl, Br or 1-4C alkyl; X is CO or CHOR4; R4 is H, 1-4C alkyl, 2-4C alkenyl, opt. Cl- or Br-subst. benzyl, COR5 or CONHR5; R5 is 1-4C alkyl, or phenyl opt. substd. by Cl, Br or 1-4C alkyl). Also claimed are cpds. (I; R1 is Me, R2 is R3 is Ph, X is CO) and (I; R1 is Me, R2 is Ph, R3 is 4-chlorophenyl, X is CO).HCl.

(I) have high activity against a wide range of phytopathogenic fungi, esp. Ascomycetes and Basidiomycetes (e.g. Erysiphe graminis), and good plant compatibility. Their activity is systemic in some cases, and they can be used as foliar or soil fungicides, seed dressings, wood preservatives, additives for paints and PVC, etc. (24pp)



(I)

R1X-CHR3-CHR2

FRIE- D22 61647 C/35 = DS 2937-842
Artificial ear bone - having plate with groove in side away from stem and hole drilled through both

FRIEDRICHSFELD GMBH 19.09.79-DE-937842 (10.02.79-DE-905183)

L02 P32 (01.10.81) *NL8000-796 A61f-01/18

19.09.79 as 937842 (39JB)

A one-piece endoprostheses for a tympanic bone consists of a mushroom head with one or more parallel grooves, and a stem at the other side. If the endoprosthesis is made of alumina ceramics it is heavier than the bone it replaces and requires extensive grinding for the individual fit of the implant. A bore is therefore added with a constant dia. through head and stem. The stem is ground to length, ready to be set directly on the stapes.

This design reduces the wt. to nearer to that of the natural bone. DS (3pp)

CARB- D22 22411 B/12 = EP G001-147
Joint prosthesis element - having a carbon coated graphite body encircled by a metal pressure band

CARBO MEDICS INC 08.09.77-US-831488

L02 P32 (30.09.81) *EP-1-147 A61f-01/03

31.08.78 as 200171 (1358HM) (E) EP-200171 US3526906 US3623164 US3893196 US4012796 E(CH DE FR GB)

A stress-reinforced joint prosthesis, partic. a hip socket, knee, or distal tibial ankle element, has a dense isotropic graphite substrate with elasticity similar to that of natural bone, and a dense adherent isotropic vapour-deposited pyrolytic carbon coating with greater compressive than tensile strength and providing a smooth low-friction wear surface at an articulating joint.

A metal band compressively conforms over the coating adjacent to the joint surface to produce a strain of not more than 0.3% on the underlying surface and has a modulus of elasticity at least 5 times that of the substrate. The band reduces tensile strain on application of skeletal loads but is between joint and bone joining surfaces so that it does not carry any significant axial compressive load between the surfaces. (8pp)

COMS D22 79471 B/44 = EP G005-103
Air conditioning system for greenhouse - also produces soft water from hard water heated by optical filter trapping solar energy

COMMISS ENERGIE ATOMIQUE 13.04.78-FR-010910

P13 Q74 (D15) (30.09.81) *EP-5-103 A01g-09/24 F24j-03/02 + C02f-01/04

10.04.79 as 400232 (448JB) (F) DE1632943 FR1168575 FR2345068 E(DE GB IT NL)

A process and an installation is described for conditioning the atmos. of a greenhouse, by night and by day, and for distilling non-fresh water for irrigation.

The greenhouse is used for plants for which only certain wavelengths of solar radiation are useful. Optical filters are employed by day to absorb radiation of other wavelengths to heat circulated, non-fresh water, e.g. sea-water. By night the warmed water is circulated to heat the greenhouse. Some of the water vaporises to condense on cold walls for collection as fresh water. The optical filters are pref. retractable at night. (12pp)

GIVA D22 60456 C/34 = EP G017-14
Purificn. of crude 2,4,5-trichlorophenol - by reaction of impurities with formaldehyde under controlled conditions

GIVAUDAN L & CIE SA 30.03.79-US-025419

E14 (30.09.81) *US4216-342 C07c-37/72 C07c-39/32

25.03.80 as 101571 (068JB) (G) DE2121445 GB1204293 1.Jnl.Re E(CH DE FR GB NL)

2,4,5-Trichlorophenol (I) of technical degree of purity e.g. 94% I purified further, e.g. 99.3% (I), by treatment with formaldehyde in the presence of 55-75% sulphuric acid at 70-90 deg.C followed by sepn. of the purified I.

Pref. I is treated with 2-5 molar equivs. of formaldehyde, 60-70% H2SO4 at 75-85 deg.C and the purified I recovered by steam distn. The purified I is useful in the prepn. of the germicide bis(3,5,6-trichloro-2-hydroxyphenyl)methan of a high deg. of purity (5pp)

OREA ★ D22 74248 D/41 ★ FR 2477-010
Sanitary towel to fit inside pair of briefs - has springy strip inserted to restore form after flexing

L'OREAL SA 29.02.80-FR-004542

A96 P32 (04.09.81) A61f-13/16

29.02.80 as 004542 (BZ)

A sanitary towel of the type which is fixed inside the bridge of a pair of briefs. The towel contains a highly absorbent pad on the side in contact with the wearer.

The towel outer casing now contains, on the side of the pad remote from the wearer, a thin sheet of flexible, elastically deformable material. The thin sheet is pref. made of natural or synthetic rubber, expanded polymer, elastic fibrous materials or plastic which springs back to its original form.

The towel now flexes easily to permit maximum freedom to the wearer. As the wearer relaxes, the towel regains its original form and prevents leakage, even when already wet. (9pp)

HIRS/ D22 60241 A/33 #GB 1599-596
Feminine hygienic pads - made by single longitudinally folding one edge and double over-folding opposite edge before stitching

HIRSCHMAN S Z 15.10.76-US-732941 (27.01.78-GB-003406)

F07 P32 (07.10.81) *US4095-542 A61f-13

27.01.78 as 003406 (006TM)

Hygiene pad for women, is made by infolding both lengthwise margins of rectangular fabric, such as multilayer gauze, and again folding lengthwise between the infolded margins so that they overlies each other with the edge of the top layer inwardly of the edge of the bottom layer.

The assembly is then stitched along the line of the edge of the top layer, so that wide and narrow path zones are on opposite side of the stitch line. Pref. filler material is included between the folds. (5pp)

SMIN D22 27008 A/15 = GB 1599-753
Poly:carboxylate based cement contg. water soluble glass - for medical and constructional use

SMITH & NEPHEW LTD 18.11.77-GB-048193 (03.12.76-GB-050578)

A96 L02 P34 + P32 (A93) (07.10.81) *BE-861-507 A61f-13/04 C08k-03/40

05.12.77 as ----- (+ 3.6.77-GB-023789) (974MR)

Novel curable compsns. comprise a mixt. of a borate glass (I) and a polycarboxylic acid (precursor) (II), borne by a substrate in the form of a flexible carrier which is porous or otherwise provided with interstices.

(I) contains at least one multivalent metal. It is present in particulate and/or fibrous form and is soluble in aq. conditions to form at least one reactive component capable of crosslinking (II).

Pref. compsns. are in the form of a splinting bandage. Pref. the mixt. is carried on and/or intermingled with the fibres of a fibrous bandage substrate. (9pp)

SMIN D22 27008 A/15 = GB 1599-754
Poly:carboxylate based cement contg. water soluble glass - for medical and constructional use

SMITH & NEPHEW LTD 18.11.77-GB-048193 (03.08.77-GB-023789)

A96 L02 P34 + P32 (A93) (07.10.81) *BE-861-507 C03c-03/14

05.12.77 as ----- Div ex 1599753 (982PW)

A glass compsn. comprises 55.7 mole % zinc oxide (ZnO), 38.6 mole % boric oxide (B2O3) and 5.7 mole % magnesia (MgO). The compsn. is used for modifying a polycarboxylate cement compsn.

The glass compsn. is water soluble and is esp. effective in crosslinking agents in the prepn. of polyacrylic acid cements. Increasing the MgO content decreases the water solubility of the compsn.

When mixed with a polyacrylic acid, the mix generates heat to form a thick paste which sets and is unaffected by boiling water over 8 hrs. (2pp)

KIMB ★ D22 74298 D/41 ★ GB 2072-491
Disposable incontinence garment - soft elastic waist straps
removably securable to absorbent pad corners

KIMBERLY CLARK CORP 31.03.80-US-135536

A96 F07 P21 (07.10.81) A41b-09

30.03.81 as 009855 (1358BZ)

A garment has an absorbent pad with liq. impermeable backing and a facing layer, and a pair of elastic straps of soft non-irritating non-abrasive elastic with high strain low stress properties, 2-20 inches long and 1/2-5 inches wide, and with releasable end fasteners. In use the straps are located about the waist at 25-45 deg. to the horizontal.

The straps are pref. of interwoven polyester and rubber with a nylon fluff backing. The pad is pref. of mixed woodpulp and polypropylene and has a nonwoven facing which envelops both the pad and the backing. The straps pref. have buttons at the ends to engage in buttonholes in the pad, stiffened arrowhead-shaped ends to engage in pad holes, or living hinge clamps to grip the pad corners. (6pp)

CIBA ★ D22 74341 D/41 ★ GB 2072-669
4-halo-4-substd.-methyl-oxetan-2-one derivs. - useful as broad spectrum biocides

CIBA GEIGY AG 19.03.81-GB-008662 (27.03.80-GB-010384)

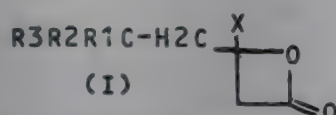
C02 E13 F09 (D15) (07.10.81) C07d-307/32 C07f-09/38

19.03.81 as 008662 (1248MR)

4-Halo-4-(substd. methyl)oxetan-2-one derivs. of formula (I) are new. (X is Cl, Br or I; R1 and R2 are F, Cl or Br; R3 is H, F, Cl, Br, CN, CR3R5R6, COR7 or POR8R8; R4-R6 are F, Cl, Br; and R7 and R8 are Cl or 1-4C alkoxy. Provided that when X is Cl, then none of R1-R6 is Br).

Cpds. (I) are broad-spectrum biocidal agents, and they are esp. effective at low concns. against bacteria, fungi and algae. They are suitable for use in circulating water systems, swimming pools etc., in aq. or oil-based systems, e.g. in cutting oils and secondary oil recovery, and in processing waters in wood pulp, textiles and leather processing, and in disinfecting hospital surfaces etc.

Specifically claimed are cpds. (I) in which (a) X is Cl and R1-R3 are Cl3 or Cl2(EtO-CO) or (b) X is Br and R1-R3 are Cl3, Br3 or ClBr(CF3). (7pp)



SHIN/ ★ D22 74683 D/41 ★ J5 6108-531
Gas-deodorising compsn. prodn. - from baked oyaishi stone powder and malted soil

SHINOZAKI M 30.01.80-JP-010412

J01 (28.08.81) B01d-53/34 B01j-20

30.01.80 as 010412 (55AT)

Deodorant is produced by combining baked oyaishi stone powder particle and malted soil. Process consists of first using soil contg. a large amt. of deteriorated substances as a cultivation medium and easily decomposing carbohydrate and proteins e.g. theriac, rice bran etc. as well as compost material e.g. sawdust and bark etc. purely cultivated filamentous fungus and a bacterium are placed on the soil so malted soil is produced by fermentation and decomposition. Powdered Oyaishi stone is baked at high temp. and is mixed with malted soil at a certain ratio and a deodorant produced.

By letting the foul smelling gas pass through produced deodorant, the foul smell is adsorbed and removed. (2pp)

NITL ★ D22 74699 D/41 ★ J5 6108-707
Medicinal plaster prodn. - by preparing sticky polymerisable complex, combining with medicament and/or medicinal aids, spreading compsn. on support and irradiation

NITTO ELECTRIC IND KK 31.01.80-JP-011092

A96 B04 (B07) (28.08.81) A61k-09/70 C09j-07/02

31.01.80 as 011092 (5HM)

Method comprises (1) prepg. a sticky polymerisable complex which has DP 5-90% and viscosity 10-1000 poise (at 30 deg.C) by bulk-polymerising a polymerisable monomer composed of (a) (meth)acrylic acid ester or vinylalkyl-ether and opt. (b) at least 1 copolymerisable monomer and/or (c) functional vinyl monomer using polymerisation initiator; (2) preparing a medi medicine contg. compsn. by combining medicine and if necessary, medicinal aids in the complex; and (3) spreading the medicine-contg. compsn. on support and irradiating with ionising radiation at such a low temp. that the compsn. can keep pressure-sensitive adhesive properties to polymerise and crosslink the complex and sterilise the compsn.

By the process (1) a sticky polymerisable complex with good spreading properties, is obtd. By irradiating with ionising radiation in process (3) the germ-free medicinal plaster which

has durable constant medicine-releasing properties and good pressure-sensitive adhesive properties can be prepd. without the loss of medicine which has been often observed by treating at high temp. (6pp)

KAOS D22 20394 Y/12 = J8 1039-281
Microbicides and preservatives for e.g. cosmetics or cutting oils - consisting of (N)-substd. (3)-thio acrylamide derivs.

KAOSOAP KK 11.09.75-JP-110374

A96 C03 E16 P34 (D21) (11.09.81) *DE2640-269 A01n-37/18

A01n-41/02 C07c-147/05 C07c-149/23

11.09.75 as 110374 (280AS)

New non-medicinal microbiocidal agents consist of cpds. R1-X-CH=CH-CONR2R3 (I) (where R1 is 1-20C alkyl or alkenyl; X is S, SO or SO2; and R2 and R3 are H, 1-20C alkyl, an oxyalkylene gp. contg. 1-20 ethylene oxide or propylene oxide units, 2-sulpho-ethyl (salt), or 2-carboxy-ethyl (salt)).

New process for reducing deterioration of non-pharmaceutical compsns. contg. organic materials subject to attack and decompsn. by microorganisms comprises adding to or admixing with the compsns. a cpd. or mixt. of cpds. (I) in an amt. effective in preventing or delaying the proliferation of the microorganisms in the compsns.

(I) have good, broad-spectrum antimicrobial activity which renders them suitable for use as preservatives in compositions such as cosmetics, cleansing agents, cutting oils, etc. (J52034923) (16pp)

SUMO D22 06566 C/04 = J8 1039-312
1-Triaryl:methyl:imidazole prepn. - from imidazole and carboxylate ester prepd. from acid anhydride and triaryl methanol

SUMITOMO CHEMICAL KK 01.06.78-JP-066339

E14 (11.09.81) *J54157-560 C07d-233/62 + A61k-31/41

01.06.78 as 066339 (140NS)

Prepn. of 1-triphenylmethylimidazoles (I) comprises reacting a carboxylate ester with a 1-unsubstd. imidazole, pref. imidazole. (I) are esp. 1-triphenylmethylimidazole or a 1-(halophenylbisphenylmethyl)imidazole, partic. 1-(o-chlorophenylbisphenylmethyl)imidazole, and are useful as antimicrobial agents. The ester is pref. a lower alkyl-carboxylate, esp. an acetate, or a halogenoalkylcarboxylate, esp. trifluoroacetate; of a triphenylmethyl alcohol, pref. triphenylmethyl alcohol or a halophenyldiphenylmethyl alcohol. It is pref. prepd. from the alcohol and the acid anhydride. The reaction proceeds easily in the absence of an organic base as acid binder, and the desired cpd. can be obtd. in good yields. In partic. when the ester is triarylmethyl lower alkyl carboxylate or carbonate, the reaction solvent is merely distilled off under reduced press. to obtain the prod. as a single cpd. (J54157560) (5pp)

ICIL D22 00359 U/01 = NL-167-852
Bacteriostatic cleaning compsn - based on chlorohexidine salt and polyoxyethylene polyoxypropylene block copolymer

IMPERIAL CHEM INDS LTD 18.06.71-GB-028764

A96 B05 E14 + P34 (A25) (16.09.81) *DE2229-549 C11d-03/24 + A61l-02/18

14.06.72 as 008128 (313JB)

Liq. cleaner which can be used for surgical applications comprises a disinfectant, a non-inorganic surfactant and an inert diluent or carrier. The formulation contains 0.5-10 wt./vol.% chloro-hexidine salt, which is at least 0.5 wt./vol.% soluble in water at room temp., and a polyoxy-ethylene-polyoxy-propylene block copolymer, which consists of 20-80 wt.% polyoxy-ethylene in in which the polyoxy-propylene part has a mol. wt. of 1000-2750.

Pref. the amine oxide foaming agent is also included, esp. cetyl-dimethyl-, lauryl-dimethyl-, cetyl-methyl-myristyl-, or dimethyl-myristyl-amine oxide (3.75 wt./vol.%) used with 0.5-5.0% chloro-hexidine gluconate, 25% copolymer with 40-70% polyoxy-ethylene and polyoxy-propylene of mol. wt. ca. 2250. (3pp)

CIBA D22 54772 S/34 = NL-167-959
8-hydroxyquinoline acrylates, bactericides and fungicides

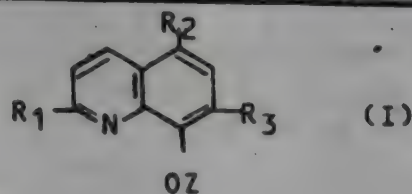
CIBA GEIGY AG 13.02.70-CH-002138

B02 C02 (16.09.81) *DE2105-174 C07d-215/32 + A01n-48/42

12.02.71 as 001930 (913JB)

8-Hydroxyquinolines, useful as bactericides and fungicides, are of formula (I) (where Z is -CO-CX=CH2; X is H, Cl, Br; R1 is H or methyl; and R2 and R3 are H, Cl, Br, I). Pref. (I) is where R1 is H, R2 is Cl, R3 is Br or I, and X is H.

Typically (I) can be prepd. without forming resin, by esterifying cpd. (I:Z is H) with a reactive acrylic acid deriv. (esp. acid halide), or if X is Cl or Br, with a haloacrylic acid halide Hal-OC-CX=CH2, whereby 1 mol H-halide or 1 mol H and simultaneously or subsequently 1 mol H-X is cleaved forming a double bond, in the presence of an acid binder.



MEDI= ★ D22 75280 D/41 ★ SU-797-692
Dressing material prepn. - by using proteolytic enzyme, pref. terrilytine in sodium alginate soln. at pH 3.0-10.5

MED POLYMERS INST(KIHA= HETO AMSU=) 25.10.77-SU-539250

B05 P34 (23.01.81) A611-15

25.10.77 as 539250 (1471WD)

The dressing material used in the therapy of wounds and burns is improved by introducing as binding agent a proteolytic enzyme, pref. terrilytine- into an aq. sodium alginate soln. with subsequent freezing and sublimation by drying of the gel. The pH of the aq. medium is 3.0-10.5. Typically, 5 g. of sodium alginate are dissolved in 1 l. of distilled water at room temp. 2.4 g. of terrilytine is added to the stirred soln. and the stirring continued until complete dissolution of the enzyme (1-2 mins.), keeping the pH of the soln. at 3.0-10.5 (optimally 5.0-8.0). A gel formed on standing in 5-10 mins. is frozen to 20 deg.C. in 30 mins. and then subjected to sublimation drying at room temp. and residual pressure in the drying chamber of 0.1 mm Hg.

A porous material with moisture content 4.5%, density 0.018, pores volume 94%, water absorption 7100%, content of the enzyme 0.3243 g/1 g. of the preparation, proteolytic activity 340-380 nE/1 g. of the preparation, is obtained in 36 hrs. Bul. 3/23.1.81. (2pp)

BASH= ★ D22 75407 D/41 ★ SU-798-049
Flooded oil strata sulphate reducing bacteria growth suppression - by treating with mixt. of methyl ethyl ketone, acetone, ethyl acetate, formic acid, propionic acid and acetic acid

BASHKIR PETR IND(UFAP) 23.01.79-SU-721104

E12 H01 Q49 (23.01.81) C02f-01/50 E21b-43/22

23.01.79 as 721104 (815VE)

Growth of sulphate-reducing bacteria in petroleum prodn. flood beds can be prevented by addn. of an O- contg. organic reagent, a suitable and highly effective mixt. being methyl ethyl ketone, acetone, ethyl acetate, formic acid and propionic acid in the ratios 8-20.4: 13.5-18.6: 19.8-23.0: 5.5-10.0: 9.0-18.0, with acetic acid to 100% by wt.

The reagent is 100% effective at low dosages compared to the previous reagent acrolein, which was inefficient and thus required a high level of application, and was also unstable, polymerising readily and hence losing activity. (3pp)

CIBA D22 14991 C/09 = US 4290-846
Protecting (in)organic materials against decay by microorganisms - by incorporating or coating with 3,5-di:bromo-4-chlorophenol, 3,5-di:bromo-4-fluoro-phenol and/or 3,5-di:chloro-4-bromo-phenol

CIBA GEIGY CORP 08.08.78-CH-008472

A60 E14 F09 P34 + P14 (F06) (22.09.81) *DE2931-838 D21d-03

30.07.79 as 062193 (931TM)

Organic and inorganic materials are protected from attack by micro-organisms by incorporating or applying an opt. mixt. of 3,5-dibromo-4-chlorophenol, 3,5-dibromo-4-fluorophenol and 3,5-dichloro-4-bromophenol in amt. 100-10,000 ppm to the surface of the material..

Pref. 200-5,000 ppm of the trihalophenol cpd. are used to protect technical formulations or plastics moulding cpds., 0.1-10 g are used to protect 1 sq.m. of wood, and 200-2,000 ppm are used to protect textile fabrics.

The trihalophenol cpds. are esp. used for protection against rot and mildew induced by bacteria and fungi. (7pp)

MERE D22 30514 C/17 = US 4291-013
Resorbable moulded prods. based on collagen - with bio-resorbable binder

MERCK PATENT GMBH 09.10.78-DE-843963

B07 + P31 P32 P34 (22.09.81) *NL7907-450 A61f-13 A61k-09/22 A61l-15/03

09.10.79 as 082520 (918PW)

Collagent based drug delivery system (I) resorbable in the body can be sterilised and compacted into the shape of a tablet, spheroid, foil, pipe, plate, fibre, granular, strand or table by the applicn. of heat of a temp. of 130-200 deg.C opt. with the applicn. of pressure of 300-1200 bar. (I) is formed by extrusion with injection moulding or sintering and upon admin. retains its shape and retards liberation of the drug. (I) comprises 0.2-20 wt.% of drug, 1-25 wt.% bisresorbable binding agent for collagen and the balance is finely ground collagen. The binding agent consists of a

co- or homopolymer of lactide or glycolide or a co- or homopolymer of a 2-16C alpha-hydroxyalkanoic acid.

Pref. (I) comprises 0.1-40 wt.% of the resorbable mass of calcium phosphate. The binding agent is pref. a copolymer of lactide and glycolide contg. 10-30 mole % glycolic acid.

The shapable collagen is suitable as surgical material, or an implantable active material depot. (8pp)

LACL- ★ D22 75599 D/41 ★ US 4291-025
Thermally reversible agar gel topical dressing for burns etc. - contains di:ethylene glycol to lower gelation temp. of sol obtd when gel is heated

LACLEDE PROFESSIONA 11.04.80-US-139500

E17 (22.09.81) A01n-31 A61k-31/70

11.04.80 as 139500 (914NS)

Dressing comprises 5-12 (esp. 8-10) wt.% agar, 20-75 (esp. 40-55) wt.% diethylene glycol, and water to 100%, is new. Pref. the gel also includes a strengthening agent chosen from sodium borate, potassium borate, potassium sulphate and/or zinc sulphate. The dressing is for coating on burn area or other area of skin impairment. The gel is thermally reversible, i.e. on heating it forms a sol., and the presence of the diethylene glycol reduces the gelation temp. of the resulting sol. to below 49 deg.C (usually 24-49 deg.C), allowing the sol. to be cooled and applied to the burn or wound when it is at a tissue compatible low temp., following which the sol. resets to a gel on the skin. The diethylene glycol also functions as a plasticiser for the gel, and as a humectant to assist the gel dressing in absorbing fluids from the burn or wound. It is postulated that the diethylene glycol also contributes antibacterial properties. (5pp)

AMST- ★ D22 75638 D/41 ★ US 4291-122
Biological indicator for sterilisation processes - contg. fermentable microorganism and dry carbohydrate sepd. from growth and pH indicator

AMER STERILIZER 14.08.80-US-178096

(D16) (22.09.81) C12q-01/22

14.08.80 as 178096 (478)

Indicator consists of a transparent vial contg.: (a) a fermentable microorganism (I) which is sterilised by essentially the same conditions as the objects to be sterilised, together with a discrete, solid, dry carbohydrate (II) (unavailable for fermentation by (I) in its dry form); and (b) an inner breakable ampoule contg. a liq. (II)-free growth medium and pH colour indicator. In use after the indicator has been exposed to the sterilising conditions, the inner ampoule is broken and the liq. medium is allowed to dissolve (II) and contact any (I) which may be viable. The vial is incubated, and pH changes are watched for. The vial-ampoule system is described in US Applicn. Ser. No. 153136. (I) is pref. Bacillus stearothermophilus (for steam sterilisation), B. subtilis (for ethylene oxide). The indicator is pref. e.g. phenol red.

The indicator is suitable for use in both ethylene oxide gas or steam sterilisations, and reduces the formation of false +ve results. (5pp)

HORA/ ★ D22 75642 D/41 ★ US 4291-133
Surface modified non-thrombogenic polymer - comprising hydrophobic polymer substrate and branched polymer having negatively charged gps.

HORAK V 05.04.79-US-027366

A96 (22.09.81) C08l-27/06 C08l-35

05.04.79 as 027366 (928AT)

Surface-modified polymeric substrate comprises (a) a polymeric hydrophobic substrate swellable by selected solvents and (b) a branched chain polymer having a linear hydrocarbon backbone, linear hydrocarbon aliphatic side chains along the backbone and pendant reactive gps. which are negatively charged or which may be reacted with cpds. having a negative charge. The side chains contain not more than 20C atoms and are embedded in the substrate. Pref. the reactive gps. are reactive with heparin.

Pref. (b) has at least 5 esp. 10 aliphatic chains regularly spaced from one another on the backbone by at least 2 atoms.

The polymer surface is non-thrombogenic. (4pp)

RICH ★ D22 75652 D/41 ★ US 4291-160
7-Dithiolane-imino-3-substd.-methyl-2-cephem derivs. - useful as broad spectrum antibacterials for therapeutic use and as disinfectants

RICHARDSON-MERRELL INC 05.11.79-US-091464 (12.03.79-US-019415)

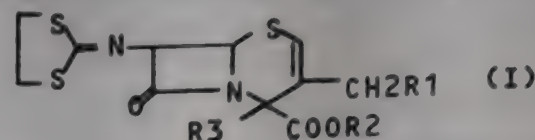
B02 C02 (22.09.81) C07d-501/16

05.11.79 as 091464 Div ex 4208516 (1248JB)

7-(1,3-Dithiolane-2-imino)-3-(substd.-methyl)-2-cephem derivs. of formula (I) are new. In the formula R1 is 5-methyl-1,3,4-thiadiazol-2-ylthio, 1-methyl-1,2,3,4-tetrazol-5-ylthio or 1,2,3-triazol-4-ylthio; R2 is H, a cation, tBu, Cl3CCH2, Ph2CH, HCO-O-CH2 or (2-5C) alkanoyloxymethyl; and R3 is 1-4C alkyl,

carboxymethyl, (1-4C) alkoxy carbonyl, (1-4C)
alkoxy carbonylmethyl, halomethyl, or benzyl opt. substd. by
MeO or halogen.

Cpds. are broad-spectrum antibacterials for use as therapeutic
agents in poultry and mammals and as topical germicides and
surface disinfecting agents. They are disclosed in US4208516
(Der. 48133C/27). (8pp)



See Also

D21 EP--36415 D21 US 4291041

D23: OILS; FATS; WAXES

BADI D23 20587 C/12 = EP G008-741
Prepn. of carbonyl cpds., esp. citronellal - by selective liq. phase
hydrogenation of unsatd. carbonyl cpds. esp. citral in presence of
tert. amine

BASF AG 11.09.78-DE-839474

E17 (E19) (30.09.81) *EP--8-741 C07c-45/62 C07c-47/02 C07c-
49/04

21.08.79 as 103068 (068JB) (G) DE2114211 DE2534747 FR2224433
E(BE CH DE FR GB IT NL)

Carbonyl cpds., esp. citronellal, of formula (I) R1-CHR2-CHR3-
C(R4)=O (where R1 is H or an organic radical and R2, R3 and R4
are H or 1-4C alkyl) are prepd. by selective hydrogenation of the
carbonyl cpds. (II) R5-CR2=CR3-C(R4)=O (where R5 is the
desired radical Cl or a radical contg. one or more double bonds
conjugated with the -R2C=CR3- gp.), esp. citral.

Hydrogenation is carried out in the liq. phase using a Pd
catalyst, pref. 0.1-50 wt. % Pd, of particle dia. 8-50 Angstrom and a
pore dia. distribution max. 4-50 Angstrom on active charcoal of
surface area 600-1000 sq.m/kg, in the presence of an organic base
and 15-50 wt. %, based on unsatd. carbonyl cpd. of a tert. amine,
pref. trimethylamine.

Selectivity of hydrogenation is very high in the presence of such
an amine. (7pp)

BADI ★ D23 74030 D/41 ★ EP --36-433
Di:methyl-hydroxy-di:hydro-furanone synthesis - from hexene-
di:ol via new 3,4-epoxy-hexane-2,5 di:ol, di:methyl-di:hydroxy-
tetra:hydro-furan and di:methyl-hydroxy-tetra:hydro-furanone

BASF AG 20.03.80-EP-101478

E13 (30.09.81) C07d-303/14 C07d-307/60

20.03.80 as 101478 (200BZ) (G) DE2835368 EP--8358 DE1768649
DE2359891 E(AT BE CH DE FR GB IT LU NL SE)

2,5-Dimethyl-4-hydroxy-2,3-dihydrofuran-3-one, (I), is prepd. in 4
steps. In 1st step, (a) hex-3-ene-2,5-diol (V) is epoxidised to 3,4-
epoxy-hexane-2,5-diol, (II), with H₂O₂, in liq. phase, in the
presence of a side-gp. IV to VIII metal oxide or of a
heteropolyacid of a Gp.VI acid-forming element, at pH 3-7 (4-6).
(b) (II) is converted to 2,5-dimethyl-3,4-dihydro-tetrahydrofuran
(III) by acid-catalysed epoxide ring dissociation and subsequent
ring-closure, at 40-280 deg.C. (c) (III) is dehydrogenated to 2,5-
dimethyl-4-hydroxy-tetrahydrofuran-3-one (IV) with O₂ or an O₂-
contg. gas at 400-700 deg.C, at an Ag- or Cu contact catalyst. (d)
(IV) is oxidised to (I) with Bi₂O₃ in conc. AcOH soln. The
intermediates (II), (III), and (IV) are new cpds.

(I) is an aromatising material, naturally available in pineapple
and strawberries. (IV) is a perfume and aromatiser, has a fruity
odour and can be used for perfuming cosmetics, foodstuffs and
drinks.

(I) is obtd., without technical difficulties, in good yields, e.g. 30-
50% over steps (a) to (d). In the individual steps, (a) (II) can be
obtd. in 85-90% yield, (b) (III) in 78-85% yield, (c) (IV) in 50-80%
yield and (d) (I) in 75-85% yield. (16pp)

BRTO ★ D23 74335 D/41 ★ GB 2072-656
Decolourising organic cpds., esp. fatty acid(s) - by distn. after
contact with borohydride in acidic conditions

BOCLTD 31.03.80-GB-010797

E17 (07.10.81) C07c-51/42

31.03.80 as 010797 (367NS)

Removal of dark-coloured impurities from cpds. (esp. fatty acids)
is effected by contacting with a borohydride at an acid pH and
distilling the mixt. The borohydride is pref. NaBH₄ and is used in
an amt. of 0.01-0.5 (pref. 0.02-0.05, esp. 0.03) wt. %.

The process is esp. useful for improving the colour of tall oil.
Carrying out the treatment at acid pH eliminates the need for
prior neutralisation of the fatty acids in an aq. medium, thus
simplifying the process and avoiding emulsion formation. (4pp)

VACC/ ★ D23 D/41 ★ IT 1051-701
Fatty oils treatment - by caustic neutralisation and treatment
with hydrophilic-lipophilic solvent

VACCARINO C 17.06.61-IT-011137

(20.05.81) C11b

LEDO ★ D23 D/41 ★ IT 1051-706
Modified glyceride(s)

LEDOGA SPA 29.08.62-IT-017153

E17 (20.05.81) C11d

VACC/ ★ D23 D/41 ★ IT 1051-715
Fatty oils treatment - by caustic neutralisation and treatment
with hydrophilic-lipophilic solvent

VACCARINO C 18.01.64-IT-001117

(20.05.81) C11b

ALFA ★ D23 D/41 ★ IT 1051-981
Olive oil sepng. appts.

ALFA LAVAL SA 03.01.75-ES-433524

(D13) (20.05.81) C11b

TAKS ★ D23 74698 D/41 ★ J5 6108-70
Perfume compsn. contg. beta-isopropoxyethyl salicylate - can be
prepd. from inexpensive cellosolve and salicylic acid, has mild
floral fragrance

TAKASAGO PERFUMERY KK 29.01.80-JP-008963

E14 (28.08.81) A61k-07/46

29.01.80 as 008963 (5NS)

Compsn. contains beta-isopropoxyethyl salicylate.

Beta-isopropoxyethyl salicylate (abbr. IPES) shows mild floral
fragrance and better perfume-holding properties than the
salicylic acid esters (e.g. methylsalicylate, ethylsalicylate,
benzylsalicylate, etc.) which have been used in perfumes. IPES
excellently miscible with other materials of perfume use.

IPES can be prepd., e.g. by heat-reacting isopropylcellosolve
and methylsalicylate in the presence of small amount of caustic
alkali in an N₂ gas stream. Amt. of IPES combined 1-30 w/w %
perfume compsn. IPES is not stimulative to skin and never
causes skin allergies. (4pp)

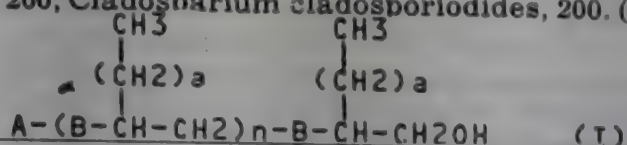
MAZP ★ D23 74705 D/41 ★ J5 6108-7
Liq. branched chain opt. unsaturated higher aliphatic alcohol(s)
used as antimicrobials or perfumes

MARUZEN PETROCHEM KK 30.01.80-JP-009747

B05 E17 (28.08.81) A61k-07/46 A61k-31/04 C07c-29/50 C07c-
31/02 C07c-33/02

30.01.80 as 009747 (52BZ)

Title cpds. of formula (I) are new (wherein A is CH₃- (CH₂)_n-
CH(CH₃)- or CH₃-(CH₂)_a+2-; B is -CH₂-CH₁/C(F)-CH₂- or -CH₂-
CH₂-CHF-CH₂- (where F is H or -CH₃); n is 0, 1 or 2 or 3; a is 0 or
(I) are prepd. by hydroxylation of the terminal double bond
unsatd. hydrocarbons of formula (II) on hydroboration
hydroalumination. (II) may be prepd. by the alternate
copolymerisation as described in JP4719694. Hydroboration (as
oxidative hydrolysis) is achieved with 0.02-0.6 mole, pref. 0.05-
mole diborane in a polar solvent, e.g. THF, diethylene glycol
dimethyl ether, dioxane at 0-20 deg.C, pref. 0-10 deg.C. The
subsequent oxidative hydrolysis is effected with alkaline H₂O₂ in
a conventional manner. Hydroalumination is achieved with e.g.
Et₃Al, i-Bu₃Al, AlH₃, EtAlH₂, LiAlH₄, etc. in a solvent e.g.
octane, toluene, xylene at 100-200 deg.C, pref. 130-160 deg.C. The
subsequent oxidative hydrolysis is effected on oxidation with
molecular oxygen and subsequent acid hydrolysis. When B is
CH₂CH₂-CHF-CH₂-, (I) may be prepd. by further catalytic
hydrogenation of the corresp. unsatd. (I) with a metal catalyst
such as Ni, Co, Pt, Pd. (I) are useful as antimicrobials
perfumes. For example, 2-methyl-4-nonen-1-ol exhibits MIC (ppm
on a nutrient agar medium): Staphylococcus aureus, 400; Bacillus
subtilis, 400; Aspergillus niger, 800; Saccharomyces cerevisiae,
400; Aspergillus flavus, 800.



NIOF D23 26008 C/15 = J8 1039-292
Fatty acid purificn. - by adding reducing metal and its hydroxide and distilling

NIPPON OILS & FATS KK 17.08.78-JP-100160
E17 (11.09.81) *J55027-156 C07c-51/48 C11c-01/10
17.08.78 as 100160 (22JB)

Fatty acid is purified by adding reducing metal and its hydroxide and then distilling. Thus pale colour fatty acid can be obtained and its colour does not change even after prolonged storage.

The fatty acid may be natural fatty acid derived from animal fat or oil and vegetable oil and fat, or a synthetic fatty acid obtained from the natural fatty acid.

The reducing cpd. may be Sn, Zn, Fe, Al, Mg, Cu, Ca, Ni, Co, etc., and their hydroxides. The metal and metal hydroxide are added to the fatty acid each in an amt. of 0.01 to 5% wt. After the addn. of the metal and its hydroxide, the mixt. is distilled under normal conditions. (J55027156) (6pp)

HASH/ D23 04871 B/03 = J8 1039-818
Softening sperm whale oil without decreasing higher alcohol content - by adding animal oil, plasticiser and pure plant oil, etc. to lower m. pt., and kneading

HASHIMOTO Y 12.05.77-JP-053710
(16.09.81) *J53139-604 C081-91
12.05.77 as 003710 (34NS)

The process comprises adding an animal oil, e.g. beef tallow, pork tallow etc. a plasticiser and a pure plant oil etc. to lower the m.pt. of the sperm whale oil, and thoroughly kneading the mixt. at below the m.pt. of the sperm whale oil. S The sperm whale oil has a m.pt. of 17-22 deg. C, a non-saponified content of 35-40%, an iodine value of 58-80 and a specific gravity of 0.78-0.785. It contains higher alcohols e.g. cetyl alcohol to give it good permeability.

In an example, 60% sperm whale oil, 10% beef tallow, 10% pork tallow, 3% N-paraffin (plasticiser) and 17% pure plant oil are kneaded at 25 deg. C (+ -2deg. C) in winter to give a softened oil mixt. having stable viscosity, which exhibits very low decrease of higher alcohols. (J53139604) (3pp)

AIRL D23 22789 S/13 = NL-167-95
Hydroxycitronellal from citronellal
AIR LIQUIDE L' 23.09.69-FR-032282
E17 (16.09.81) *NL7013-942 C07c-47/19 + C07c-45
21.09.80 as 013942 (510TM)
In prepn. of 7-hydroxydihydrocitronellal (I) by hydration of citronellal (II) contg. a masked aldehyde gp., (a) a citronellal I reacted with a sec. amine in liquid phase, to form an enamine, (b) the enamine is treated with a 30- 70 (42) wt.% H2SO4 soln., in liquid phase, at between -30 deg.C and 0 deg.C., (c) the reaction mixt. is brought to room temp., and (d) the acid reaction mixt. is neutralised.

(I) is obtd. in good yield. The amine is pref. dimethylamine, 1 (1.3) mols/mol. (II). The amt. of acid is 2-5 moles/mol. (II). The mixt. may be treated with hexane before neutralisation, to remove by-prods., esp. isopulegol (III). (III) can be hydrogenated to menthol. Natural extracts can be treated without extrn. of (II). (I) is used in the perfume industry. (5pp)

ANIS D23 36385 X/20 = NL-167-953
Octene-nitrile derivs for perfumery use - prepd from 3,7-dimethyl-3-hydroxy-6-octene nitrile by dehydration or by acetylation (BE270476)

ANIC SPA (SNAM) 30.10.74-IT-028956
E19 (16.09.81) *DE2548-502 C07c-120 C07c-121/30
28.10.75 as 012624 (510TM)

3,7-Dimethyl-2,6-octadiene nitrile is prepd. by dehydrating 3,7-dimethyl-3-hydroxy-6-octene nitrile. The cis-isomer (geranonitrile) and the trans-isomer (neronitrile) are obtd. in quat. yield. Dehydration is pref. at 180-280 deg.C and atmos. pressure, on a dehydrating agent, e.g. alumina.

The cis- and trans-isomers are used in prepn. of sweet-smelling oils, for use in perfumes, soap, cleaning compsns. and cosmetics. (3pp)

D24: SOAP; SOAP DETERGENTS

KAOS D24 49363 B/27 = J8 1039-840
Soap-filled scouring pads - contg. specified alkali metal fatty acid soap

KAO SOAP KK 26.12.77-JP-156948
E12 P28 (D25) (16.09.81) *DE2851-542 C11d-09/02 C11d-17/04
26.12.77 as 156948 (367DH)

Scouring pads contg. a special alkali metal fatty acid soap are claimed. The fatty acid has an average carbon number of 16-20 and an iodine number of 30-45 (esp. 35-43) and is 85-98 (esp. 90-96)wt.% neutralised with alkali.

The fatty acid is pref. partially hydrogenated tallow fallow acid, e.g. produced by hydrogenating tallow fatty acid (with an iodine number of 48) at 150 deg. C and 4.0 kg/sq.cm in the presence of 0.05% of a Ni catalyst for 1 hr. The alkali metal can be Na or a mixt. of Na and K with a Na:K wt. ratio of 100:0 to 90:10. The soap can opt. be used in combination with synthetic detergents, inorganic salts, dyes, perfumes, microbicides and/or rust inhibitors. The soap inhibits scratching of the article being scoured and suppresses rusting of the (steel wool) pad during mfr. and use. (J54087707) (5po)

The system continuously spray-dries a washing paste in a cylindrical drying tower, the paste being 10 to 50% by wt. water and 50 to 90% by weight solids, containing a synthetic active washing material and an organic or inorganic strengthener. This is delivered to spray heads at different levels in the tower and dried by hot air flowing in the opposite direction.

The hot air is caused to perform a cyclonic upwards movement, forming in the tower an annular drying zone enclosing a cylindrical low-pressure one. 30 to 80% of the paste is continuously sprayed directly into the drying zone in the opposite direction, in the area below 88 -deg. isotherm and above the paste boiling point isotherm, via nozzles evenly spaced in a horizontal plane in the drying zone, so that each jet dissolves into particles inside the latter.

The remainder of the paste is continuously sprayed directly into the drying zone in the area above the 88 -deg.C isotherm, via nozzles evenly spaced in a horizontal plane, so that each jet also dissolves inside the drying zone into particles. (10pp)

PROC D24 07528 T/05 = NL-167-992
Multilevel spray - drying tower - for granular detergent prodn
PROCTER & GAMBLE CO 31.07.70-US-060012 (31.07.70-US-060011)
Q76 (D25) (16.09.81) *US3629-955 B01d-01/18 C11d-11/02 F26b-03/12
30.07.71 as 010551 (160TM)

D25: OTHER DETERGENTS

VELW ★ D25 73209 D/41 ★ DD-149-513
Washing active alkyl sulphonate cpd. prodn. - by sulphochlorination of paraffin and partial alkaline hydrolysis

VEBLEUNA-WERK WULBRICH 25.03.80-DD-219895

E17 (15.07.81) C07c-139/02 C07c-143/02

25.03.80 as 219895 (016AS)

In the prodn. of esp. washing-active alkyl sulphonates (I), with a high content of prim. monosulphonates (IA), by sulphochlorination of paraffinic hydrocarbons (II), giving prim. and sec. mono- and di-sulphochlorides (III), and hydrolysis of these, the (III) mixt. is hydrolysed with 5-50% of the amt. of alkali needed for complete hydrolysis. The hydrolysed aq. phase, contg. esp. disulphonate (IB) and (IA), is sepd. from the organic phase, consisting esp. of sec. monosulphochlorides (IIIA), and, if necessary after further sepn. of its components, work up as (I).

The washing efficiency is increased with min. loss by rejection of prods. contg. (IB), since the prim. mono- or di-sulphochlorides are hydrolysed more readily than (IIIA). (9pp)

HENK ★ D25 73993 D/41 ★ DE 3011-834
Very fine crystalline sodium alumino-silicate zeolite prodn. - with low grit fraction, by continuous pptn. and discontinuous crystallisation

HENKEL KG AUF AKTIEN(DEGS) 27.03.80-DE-011834

E33 (01.10.81) B01j-20/18 C01b-33/26 C11d-03/12 G07g-01

27.03.80 as 011834 (016AS)

Prodn. of aq. alkaline suspension of very finely divided crystalline zeolitic Na aluminosilicate (I), low in grit, of the compsn. 0.8-1.3 Na₂O:1 Al₂O₃:1.8-2 SiO₂, with a water content depending on the degree of drying, min. 99.95 wt.% particles under 50 microns in size and with a high cation exchange capacity is described. Process involves (a) continuous mixing of aq. Na aluminate soln. (II) with aq. Na silicate soln. (III) in the presence of excess NaOH soln. at elevated temp. and then (b) discontinuous crystallisation of the aq. alkaline suspension of X-ray amorphous Na aluminosilicate (IV) formed, which overall has the compsn. 3.6-5 Na₂O:1 Al₂O₃:1.8-2 SiO₂:70-105 H₂O, also at elevated temp.

Improvement is that both reagents in stage (a) are mixed at max. 50 (40-50) deg.C. Finely distributed steam is forced into (IV) for min. 15 (20-30) min., with stirring, so that it is heated to 85-95 (90-93) deg.C, it is kept at this crystallisation temp. for 20-60 (30-40) min. and at the same time, it is stirred with a multistage, high-shear stirrer with a peripheral speed of 5-10 (6-8) m/s.

A zeolite NaA with a grit fraction of under 0.05 wt.% is obtd. It is useful as builder in detergents. (20pp)

UNIL D25 38733 C/22 = EP G011-500
Closed water insoluble bag contg. particulate detergent compsn. - designed to open under washing machine mechanical action

UNILEVER PLC 17.11.78-GB-045105

A92 Q34 (30.09.81) *EP-11-500 B65d-77/38 C11d-17/04

16.11.79 as 302600 (1358AT) (E) BE-367039 GB-950256 GB1013014 E(AT BE CH DE FR GB IT NL SE)

A laundry washing machine detergent package has particulate detergent compsn. in a closed water-insoluble bag which is openable to discharge its contents under the effect of mechanical action in the machine during use.

The bag is pref. of polyamide, polyester, polyacrylic, cellulose acetate, polyethylene, polypropylene, PVC, polyvinylidenechloride and/or cellulosic fibres and may be openable via a weak heat-seal incorporating a layer of non-heat-sealable material. The bag may be water-permeable by being treated with water-soluble or removable insoluble material, or by having a pore size such that no more than 1% of dry compsn. can pass through. (8pp)

BADI ★ D25 74070 D/41 ★ EP --36-550
Isopropyl end-modified alkoxyated fatty alcohol surfactant prepn. - by acid-catalysed reaction of alkoxyated alcohol with propylene

BASF AG 22.03.80-DE-011237

A97 E17 (30.09.81) C07c-41/06 C07c-43/11 C11d-01/72

10.03.81 as 101739 (200KB) (G) DE2263980 DE2450667 DE2049238 E(BE CH DE FR GB IT LI SE)

New propylene end gp.-terminated alkoxyated fatty alcohols have formula R-O-A-CH(Me)₂ (I) (where R is 8-20C alkyl; A is a polyalkylene oxide gp. contg. 4-30 alkylene oxide units consisting of 100-60 mol.% C₂H₄O- and 0-40 mol.% 1,2-C₃H₆O- and/or 1,2-C₄H₈O units).

(I)-use as low-foaming, alkali- and acid-stable tensides is claimed. (I) can be used as industrial cleansers in acid baths, e.g. for bottle washing, have higher wetting activity than isobutyl ethers, can be used in low concn., e.g. 0.01-5wt.%, and are decomposed biologically.

In pref. (I), A is a polyethylene oxide gp. (I) are prepd. by the acid-catalysed reaction of an alkoxyated alcohol or alkoxyate mixt. with propylene, at 50-170(100-150) deg.C under 1-100 bar pressure. Propylene can be used in excess. The catalysts are esp.

strong acid ion exchangers. Solvents, e.g. Et₂O, cyclohexane or tetrahydrofuran, are opt. (10pp)

HENK ★ D25 74110 D/41 ★ EP --36-625
Skin-protective, wash-active aq. dish-washing soln. - contg. equal parts of ethoxylated dodecanol and tetra:decanol sulphate

HENKEL KG AUF AKTIEN 26.03.80-DE-011550

E19 (30.09.81) C11d-01/14 C11d-17

18.03.81 as 102003 (200BZ) (G) US3985687 DE2857292 DD-135288 DE2339991 DE2421925 E(AT BE CH DE FR GB IT LI LU NL SE)

Liq. cleansing compsn. consists of an aq. soln. contg., by wt. 2-40 (4-20)% mixt., (A), of 50 parts each of a sulphated adduct of 1-5 (2-4) mol ethylene oxide to (a) a 12C n-alkanol and to (b) a 14C n-alkanol, and opt. up to 20 (2-5)% surface-active betaine, (B) in addn. to anionic and opt. nonionic tensides, solvents, stabilisers, corrosion inhibitors, preservatives, thickeners, dyestuffs and perfumes.

A pref. compsn. consists of an aq. soln. contg., by wt., 2-40 (4-20)% mixt. (A), 2-20 (5-20)% of one or more anionic tensides, 0-20 (2-5)% (B), 0-10 (0-5)% nonionic tenside, 0-20 (2-10)% solvent, 0-10 (0.2-5)% solubiliser, 0-10 (0.5-8)% thickener, 0-5 (0.1-2)% corrosion inhibitors and preservatives, 0-0.1% dyestuff, 0-0.5% perfume oil and balance to 100% water.

The anionic tensides are esp. 9-16C n-alkyl-benzene sulphonates and/or 10-20 C-alkane sulphonates. (B) have formula R₁R₂R₃N-CH₂-COO- (where R₁ is 8-20C alkyl opt. interrupted by heteroatoms or heteroatom gps.; and R₂ and R₃ are 1-3C alkyl), esp. 10-18C-alkyl-dimethyl carboxymethyl betaine and 11-17C-alkyl-amino propyl-dimethyl carboxy methyl-betaine. (A) have formula RO-(C₂H₄O)_n-SO₃M (where R is 12C- and 14C-alkyl, n is 1-5, esp. 2-4, and M is an alkali metal or ammonium ion).

The compsns. are used esp. for washing dishes by hand. The use of a mixt. (A) contg. 50% 12C-alkyl ether sulphate and 50% 14C-alkyl ether sulphate, in place of the standard 70:30 wt. ratio, lowers skin irritation without lowering washing powder. A combination of (A) and (B) increases washing activity. (14pp)

UNIL ★ D25 74150 D/41 ★ EP --36-691
Bleaching detergent compsn. - contains organic sacrificial ingredient for increasing stability of fluorescent agents

UNILEVER NV 21.03.80-GB-009636

E16 (E24) (30.09.81) C11d-03/39

17.03.81 as 200301 (478RP) (E) DE2338623 GB1472588 DE2657042 GB1573406 DE3012922 GB2048930 DE2744642 FR2367114 US4179390 E(AT BE CH DE FR GB IT LI NL SE)

Bleaching detergent compsn. consists of a nonionic detergent active cpd. (I), an inorganic persalt (II), an organic peracid precursor (III), a fluorescent agent (IV), and 0.1-5% by wt. of an organic 'sacrificial' ingredient (V). (V) has relative reactivity towards peracid and H₂O₂ of the order of 50:1, and a solubility in (I) at 25 deg.C of at least 0.15 g/l.

Compsns. pref. contain (by wt.) 0.5-2.5% esp. ca 1% of (V), together with 3-35% (II), 0.1-15% (III), 0.02-2% (IV), and 3-40% esp. 10-35% (I) (pref. at least 20% esp. at least 50% of (I) is nonionic). (V) is an alkanolamine (2-4C alkanol moiety), or a nitrilotriacetic acid (or alkali metal salt) etc.

Incorporation of (V) into the bleaching detergent compsns. (which are partic. useful for low temp. operation) increases the stability of the fluorescent agents without affecting the overall performance of the compsn. (19pp)

UNIL ★ D25 74168 D/41 ★ EP --36-720
Particles of perfume and cationic matrix - for depositing perfume on fabrics, hard surfaces etc. from aq. compsn.

UNILEVER PLC 11.03.80-GB-008239

(30.09.81) A61k-07/46 C11d-01/83 C11d-03/50 D06m-13/46

09.03.81 as 300974 (1251AS) (E) US4151097 EP--11499 DE2805767 E(AT BE CH DE FR GB IT LI NL SE)

Material (A) for depositing perfume on a surface consists of particles of average size 0.1-2000 (10-500) microns comprising (a) 0.5-50 (1.5-10) wt.% perfume; (b) 22-99.5 wt.% cationic component and (c) 0-16.8 wt.% nonionic component, the ratio of (b):(c) being at least 5:1 (6-12:1).

Pref. (b) have formula R₁R₂R₃R₄N⁺ X⁻ (R₁ and R₂ are opt. substd. 12-20C alkyl; R₃ and R₄ are opt. substd. 1-4C alkyl; X is a monovalent anion) and (c) are esp. esters of a polyhydric alcohol fatty alcohols or their deriva. Opt. a small amt. of amine is also present. Perfume is deposited on surfaces from an aq. compsn. which contains 0.005-0.3g perfume, in the form of these particles per l.

(A) are incorporated into solid or liq. laundry detergent formulations and give improved retention of the perfume. (20pp)

AIRW- ★ D25 74210 D/41 ★ EP --36-833
Dry-cleaning clothes at home - by treating with solvent-contg. cleansing compsn., placing absorbent and spinning together in washing-machine

AIRWICK AG 22.02.80-LU-082193

(30.09.81) C11d-03/43 D06f-43 D06l-01/08

16.02.81 as 810046 (200RH) (G) DE1940018 DE2628480 E(AT BE CH DE FR GB IT LI LU NL SE)

Clothes are dry-cleaned with a solvent, at home, in 3 consecutive steps (A) to (C). In (A), the clothing article is treated, e.g. sprayed, with a cleansing compsn. contg. at least one organic solvent. In (B), the clothing article is laid flat on an absorbent sheet. In (C), the clothing article and the absorbent sheet are laid flat, together, on the internal circular surface of a washing machine drum.

In a specific embodiment for treating stained clothes, step (A) is divided into consecutive steps (A1) and (A2). A special cleansing compsn. is used in both steps. In step (A1), localised stains are treated with a stain-remover. In (A2), the whole clothing article is treated with a rinsing compsn.

Clothes are thoroughly cleaned quickly at home, without risk of bacterial contamination or other hazards. (33pp)

LICH/ ★ D25 74265 D/41 ★ FR 2477-174
Rapidly dissolving washing powder compsn. in tablet form - contg. cpds. which produce effervescence with water

LICHTENBERG J P 28.02.80-FR-004419

E34 (E17 E34) (04.09.81) C11d-11 C11d-17

28.02.80 as 004419 (597BZ)

The detergent based on essential constituents of washing and analogous prods. is characterised by being in compressed powder formed and being able to dissolve in water by effervescence. The detergent is prepd. by dispensing in a washing powder at least one cpd. able to liberate oxygen on contact with water followed by tableting the mixt. Pref. effervescence cpds. are alkali or alkaline earth metal persalts or a combination of an alkali metal salt and a weak organic acid, esp. calcium percarbonate and the combination sodium carbonate/citric acid. Exemplified detergent ingredients are sodium alkyl sulphate or sulphonates or alkylarylsulphonates, sodium tripolyphosphate, silicates, carboxyalkylcelluloses, whitening agents, enzymes, deodorants, perfumes and softeners. Using sodium carbonate/ citric acid 2-15 pts. is incorporated in 100 pts. of a detergent compsn.

The prod. is a convenient form for use where only small amts. are required, e.g. when travelling, for washing clothes and dishes. It is easy to handle and dissolves rapidly. (5pp)

ECON D25 06276 B/04 = GB 1599-460
Washing oil-soiled fabrics in two steps - using lipophilic surfactant in first step and hydrophilic detergent in second step

ECONOMICS LAB INC 08.07.77-US-813874

E17 + P43 (E14) (07.10.81) *DE2813-637 D06l-01/16

30.05.78 as 023782 (974TM)

Oil-soiled fabrics are laundered by (i) laundering in a first aq. bath contg. a lipophilic surfactant of HLB value up to 11; (ii) sepg. the fabric and the first aq. bath; (iii) laundering in a second aq. bath contg. a hydrophilic detergent and (iv) sepg. the fabric and the second aq. bath.

Pref. the lipophilic surfactant is a linear 8-20C alcohol 3-5 ethoxylate. (17pp)

HENK D25 91495 A/51 = GB 1599-549
Aluminosilicate cpds. contg. combined surfactants - prepd. by replacing part of aluminate by an aluminium salt

HENKEL KG AUF AKTIEN (DEGS) 18.06.77-DE-727475

E33 (07.10.81) *BE-868-185 C01b-33/28 C11d-03/08

31.05.78 as 025684 (945PW)

Prepn. of a water-insol. radiographically amorphous alkali metal aluminosilicate is claimed. It contains bound water and bound surfactants, and based on the surfactant-free, anhydrous form has molar compsn. $aM_2O, Al_2O_3, bSiO_2$, where $a = 0.7-1.5$; $b = 0.8-8$, and M is Na or K. The hardness-resistant surfactant is present at 0.01-50wt.% based on the anhydrous, surfactant-contg. aluminosilicate.

Process comprises mixing aq. alkali metal silicate soln. and aq. alkali metal aluminate soln. Part of the aluminate soln. is replaced by acid Al salt soln., added separately, so that excess alkali metal is converted to a neutral salt by the acid gp. of the Al salt for removal with the mother liquor. (10pp)

PROC D25 13512 D/08 = GB 1599-560
Laundering of fabrics - in aq. soln. contg. ethoxylated alcohol as detergency booster, and nonionic and/or anionic surfactant

PROCTER & GAMBLE CO 15.05.78-US-905714

E17 (07.10.81) *US4248-729 C11d-01/68

31.05.78 as 026093 (974MR)

Novel aq. laundering liquors comprise 0.075-0.20wt.% detergency

booster (I), 0.02-0.12wt.% nonionic and/or anionic deterative surfactant(s), 0-1.5wt.% deterative adjunct material(s) (II) and water to 100%.

(I) is an ethoxylated prim. aliphatic alcohol with an average aliphatic chain length of 12-13C and an average degree of ethoxylation about 3. (II) is a detergency builder, bleach, water softener, soil suspending agent and/or thermally stable enzyme.

Pref. (I) is 0.1-0.13wt.% of the compsn., esp. 0.125wt.%. (7pp)

CALI- ★ D25 74308 D/41 ★ GB 2072-538
Impregnation of foam sheet with melted substance - acting as fabric softener for clothes in tumble dryer

CALIGEN FOAM LTD 04.03.81-GB-006769 (04.03.80-GB-007228)

A35 E17 P42 (A97) (07.10.81) B05c-01/08 B05d-07

04.03.81 as 006769 (295MR)

A substance is dispersed in a thin, flexible substrate of open-celled foam. The substance is melted and the substrate compressed. The substrate is allowed to expand to its normal size and simultaneously draw the melted substance into the open cells to impregnate the substrate. The substrate is cooled to solidify the impregnated substance.

The compression of the substrate may be effected by passing through a pair of nip rollers associated with an applicator roll for applying the melted substance.

The substance impregnated may be stearic acid ethoxylate. Sections of the treated foam may then be added to dryers along with clothing with which they are tumbled during the drying cycle. The temp. causes melting of the substance which is gradually released and acts as a fabric softener. (5pp)

INTE- ★ D25 74330 D/41 ★ GB 2072-643
Aq. hydrogen peroxide bleach compsns. - contg. ethanol and stabiliser, can be mixed with detergent in washing machine dispensers

INTEROX CHEM LTD 27.03.81-GB-009743 (01.04.80-GB-010886)

E36 (07.10.81) C01b-15/03

27.03.81 as 009743 (367NS)

Compsns. contain at least 3 (pref. 5-8) wt.% H_2O_2 , at least 5 (pref. 5-20 wt.% ethanol, and a stabilising amt. of a cpd. (I) comprising (a) an amino cpd. substd. by acetate or methylene phosphonate gps. or (b) a hydroxyalkyl diphosphonate.

The compsns. can be used in conjunction with solid or liq. detergent compsns., e.g. by being mixed with the detergent in a washing machine dispenser or by being used in a pre- or post-wash. They have good storage stability under alkaline conditions. (7pp)

LEDO ★ D25 D/41 ★ IT 1061-707
Modified glyceride(s)

LEDOGA SPA 14.12.62-IT-024627

E17 (20.05.81) C11d

SHIV ★ D25 74618 D/41 ★ J5 6107-072
Softening agent for washing - contg. ethylene oxide or ethylene oxide-propylene oxide adduct of higher aliphatic alcohol

NEW JAPAN CHEM 28.01.80-JP-009218

A97 (25.08.81) D06m-15/10

28.01.80 as 009218 (172WB)

Softening agent contains, as effective ingredient, ethylene oxide or ethylene oxide-propylene oxide adduct of aliphatic higher alcohol with iodine value 20-80. Ethylene oxide is added in amt. such that HLB value is at least 11. When both ethylene oxide and propylene oxide are added, propylene oxide is used in less than half the amt. of ethylene oxide. The alcohols are unsatd. higher alcohols obtd. from natural, animal and vegetable oils and fats and any other sources. At least 2 alcohols may be blended to the above iodine value. The softening agent can be blended with ordinary detergents in amt. at least 2%.

The softening agent is capable of dispersing soap scum and prevents yellowing of washing. The effect is increased after repeated washing. Washing and softening treatment can be accomplished in one operation when it is blended with detergent. (3pp)

GRAC ★ D25 D/41 ★ J5 6107-075
Fabric softener foam compsn. prodn.

GRACE W R CO 16.01.80-US-112575

(25.08.81)

a) mixing an enzyme powder with at least 1.8 x its wt. of a water-sol. inorganic salt, (b) wetting the mixt. with 3-25 wt.%, w.r.t. dry matter, of water, (c) extruding to an elongated extrudate, (d) processing the thread-shaped material to solid small spheres, in an appts. exerting centrifugal and friction force, using a speed of rotation of not more than 2000 revs./minute, and (e) drying these spheres if no, or insufficient, water-binding agent has been added.

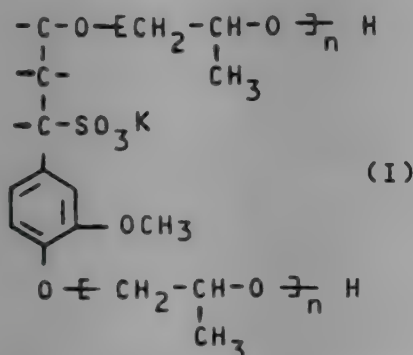
The prod. is more uniform and non-dusting, has less tendency to agglomerate, is easily sol. in hot or cold water, is stable under unfavourable conditions of temp. and humidity, and resists borates. The granules are esp. used in detergent compsns. Pref., not more than 20 wt.% of an organic binder and/or lubricant is added. During stage (d) a powdered inorganic oxide or salt, e.g. titania, may be added. The final prod. may be coated with a water-sol. or -dispersible waxy material. (7pp)

ALTI= ★ D25 75414 D/41 ★ SU-798-086
Lignosulphonate oligo-ether prodn. - includes treating aq. lignosulphonate soln. with propylene oxide at elevated temp. in presence of alkali

AS LATV TIMBER CHEM 27.02.79-SU-730313
A11 (23.01.81) C07c-43/20
27.02.79 as 730313 (938WD)

Lignosulphonate oligoethers of formula (I): are used in mfr. of polyurethane and detergent compsns. These cpds. are prepd. by propoxylation of lignosulphonates with propylene oxide at elevated temp. in the presence of alkali as catalyst.

In order to obtain completely soluble oligoethers with high reactivity and simplify the procedure, the treatment of lignosulphonate with propylene oxide is conducted at 150-120 deg.C. using starting aq. soln. contg. 40-60% lignosulphonates. Bul. 3/23.1.81. (3pp)



DIAS D25 57245 D/32 = US 4290-817
Ammonia odour elimination from water soluble glucoheptonate salt - useful in cement with acidic naphthalene sulphonate foam-aldehyde condensate

DIAMOND SHAMROCK CORP 16.01.80-US-112564
A93 E12 L02 (22.09.81) *EP--32-730 C04b-07/02
16.01.80 as 112564 (931TM)

Ammonia odour is eliminated from the water soluble salt of glucoheptonate contg. a residual ammonium ion when the salt is introduced into aq. media of pH more than 9.

The process comprises adding a free acid form of naphthalenesulphonic acid-formaldehyde condensation prod. in amt. to react with the ammonium ions, to the aq. soln. before adding the glucoheptonate. Pref. the condensation prod. obtd. is dried to obtain a flowable powder. 50 Wt.% of condensation prod. is reacted by addn. to 50 wt.% of glucoheptonate salt aq. soln.

Both the aq. soln. and flowable powder prepd. are used as additives in industrial prods., and may be used to prolong the hydration time of cement. (4pp)

PROC D25 03862 C/03 = US 4290-90
Particulate detergent additive - with matrix of organic peroxy bleach activator and water soluble ethoxylated non-ionic cpd.

PROCTER & GAMBLE CO 26.06.78-GB-027855 (26.06.78-GB-027854)

A97 (22.09.81) *EP---6-655 C11d-17/04
20.06.79 as 050236 (964MR)

Free-flowing granular bleach activator prod. is prepd. by (a) contacting powdered bleach activator with molten organic cpd. to form granular prod. with particle size 1-4mm max. dimension and (b) contacting this prod. with Na tripolyphosphate particles of size less than 500 microns to provide coating of particles at a level of 0.1-30 wt.% of the matrix defined below.

The granular prod. in (a) comprises matrix of (1) 15-70% bleach activator and 85-30% of the organic cpd. The bleach activator is tetraacetyl (m)ethylene diamine. The organic cpd. is 10-24C prim or sec. alcohol ethoxylate contg. at least 15 ethylene oxide gps per mole of alcohol, 8-16C alkyl phenol ethoxylate contg. at least 20 ethylene oxide gps. per mole of alkyl phenol and/or polyethylene glycol of mol. wt. more than 4000.

Granular prod. with flowability defined by cake strength less than 0.9 kg is provided. The prod. has a rate of dispersion such that after addn. into a standard detergent peroxy bleach soln., at least 50% of the organic peroxy bleach theoretically available from the bleach activator is generated within 8 minutes. (10pp)

PROC D25 02033 C/02 = US 4291-071
Textile softening and detergent compsn. - contg. nonionic surfactant, cationic softener, builder and polyphosphonic acid

PROCTER & GAMBLE CO 20.06.78-GB-027380
A97 E11 F06 (22.09.81) *EP---6-268 C11d-01/86 + C11d-11 C11d-17/06 D06m-13/46

18.06.79 as 049677 (974TM)

Novel textile softening detergent compsns. comprise a nonionic detergent, a cationic textile softener, a builder and a water-soluble polyphosphonic acid of formula Z-(PO₃H₂)_n (I) or a water-soluble salt of (I). Z is an n-valent organic gp. and n is at least 2.

They are prepd. by spray drying a mixt. of the detergent and cationic softener onto spray dried carrier granules, which comprise at least part of the builders. (8pp)

PURX ★ D25 75616 D/41 ★ US 4291-072
Air-permeable fabric conditioner sheet for laundry dryer - produced by distributing conditioner to give permeable regions

PUREX CORP LTD 20.11.78-US-962472 (06.10.77-US-840102)
A97 F06 P42 (22.09.81) B05d-05

20.11.78 as 962472 (928AS)

Fabric conditioner for use in a laundry drier is produced by (a) distributing a fabric conditioner compsn. (I) on the surface of an air permeable sheet and (b) variably displacing (I) by appln. of displacing media to give regularly distributed concns. of (I) including interior interstitial spaces to block the airflow and greater permeability at other regions of the sheet interior where there are interstitially open spaces including spaces from which (I) has been removed and smaller spaces where (I) remains.

The sheet does not restrict air flow through the drier. (7pp)

See Also

D16 NL 167995 D21 SU 797570 D24 J8 1039840
D24 NL 167992

- ABBO 01.07.76 ABBOTT LABORATORIES B04 D16 S03 S05 = J8 1039-637
Alpha-amylase enzymatic determination - 10637A/06
- ABBO 28.10.76 ABBOTT LABORATORIES B03 D22 E13 (D16) = CA 1108-074
Fortimycin D and KE antibiotics - 32067A/18
- ABBO 21.01.80 ABBOTT LABORATORIES B04 D16 S03 = J5 6106-155
Reagent for enzyme immunoassay - 55638D/31
- ABBO 03.03.80 ABBOTT LABORATORIES B04 D16 S03 = FR 2477-176
Stabilising substrate-peroxide reaction prods. - 66594D/37
- *ACEC 19.03.81 ATEL CONSTR ELEC CHARLER D15 J04 *BE-888-016
Catalytic reaction tank for liq. - 73736D/41
- *ACKE/ 30.03.78 ACKERMAN R A D15 (D16) *US 4290-891
Degradation of ammonia in waste water - 75544D/41
- AGEN 16.12.75 AGENCY OF IND SCI TECH D15 J04 = J5 2073-789
Determination of organic contaminants in water - 75027D/41
- *AGEN 16.12.75 AGENCY OF IND SCI TECH D15 J04 *J8 1039-418
Determination of organic contaminants in water - 75027D/41
- AGEN 15.08.77 AGENCY OF IND SCI TECH D15 (D16) = J8 1039-633
Aggregating agent NOC-1 for microbes - 30716B/16
- AGEN 29.11.77 AGENCY OF IND SCI TECH A96 D16 = J8 1039-879
Fixation of lipase - 56824B/31
- AGEN 06.06.78 AGENCY OF IND SCI TECH D16 (D17) = J8 1039-631
Alpha-1,6-glucosidase prepn. - 13617C/08
- *AGEN 04.02.80 AGENCY OF IND SCI TECH D17 (D16) *J5 6109-593
Microbial prepn. of polysaccharide - 74929D/41
- AIRL 23.09.69 AIR LIQUIDE L' D23 E17 = NL-167-951
Hydroxycitronellal from citronellal - 22739S/13
- AIRL 25.04.77 AIR LIQUIDE L' D13 = CA 1108-461
Rapidly freezing liq. and pasty foods to form granules - 74428A/42
- *AIRW- 22.02.80 AIRWICK AG D25 *EP--36-833
Dry-cleaning clothes at home - 74210D/41
- AJIN 05.03.74 AJINOMOTO KK C03 D13 = J5 0121-085
Additive for silkworm feedstuff - 75021D/41
- *AJIN 05.03.74 AJINOMOTO KK C03 D13 *J8 1039-168
Additive for silkworm feedstuff - 75021D/41
- AJIN 08.03.76 AJINOMOTO KK D16 = J8 1039-187
Microorganism culture with reduced fermentation time - 75193Y/42
- AJIN 22.09.77 AJINOMOTO KK B05 C03 D21 E19 = J8 1039-284
Hair tonic - 39646B/21
- *AJIN 30.01.80 AJINOMOTO KK B05 D16 E16 *J5 6106-598
Microbial prepn. of L-arginine - 74482D/41
- ALBR 15.12.75 BUSH BOAKE ALLEN D22 E15 = CA 1108-648
Air fresheners contg. cycloalkyl alcohol derivs. - 43934Y/25
- *ALFA 03.01.75 ALFA LAVAL SA D23 (D13) *IT 1051-987
Olive oil sepng. appts. - D/41
- ALFA 23.05.79 DE LAVAL SEPARATOR D15 J01 #CA 1108-572
Sludge centrifuge with automatic sludge discharge - 64574B/35
- *ALFA 20.03.80 ALFA-LAVAL AB D13 *GB 2072-480
Salting of milled cheese curd - 74296D/41
- ALKU 00.00.79 AKZO GMBH D16 = DE 3009-828
Prodn. of fermented drinks with reduced alcohol content - 72108D/40
- ALKU 14.03.80 AKZO GMBH D16 = WP 8102-745
Prodn. of fermented drinks with reduced alcohol content - 72108D/40
- *ALTI= 27.02.79 AS LATV TIMBER CHEM A11 D25 *SU-798-086
Lignosulphonate oligo-ether prodn. - 75414D/41
- AMAN 10.11.73 AMANO PHARM KK A97 B04 D16 F09 (D13 D15) = J8 1039-191
(Hemi)cellulase for cellulose decomp. in waste waters - 34611W/21
- AMCY 28.08.79 AMERICAN CYANAMID CO B04 C03 D16 (D13) = US 4291-026
Antibiotic BM123-gamma pamoate complex prepn. - 19611D/12
- AMCY 28.02.80 AMERICAN CYANAMID CO C02 D13 = FR 2476-985
Bait for ants contg. pyrimidinyl-hydrazone insecticide - 66504D/37
- AMCY 27.03.80 AMERICAN CYANAMID CO D21 E17 (E32 E33) #GB 2072-503
Antiperspirant compsn. contg. aluminium or aluminium-zirconium salts - 47814D/26
- AMFA- 13.11.78 AMFAC FOODS INC D13 = CA 1108-465
Fried potato fingers - 38482C/22
- *AMHP 20.03.78 AMERICAN HOME PROD CORP D16 J01 (D14) *CA 1108-065
Combined filtering and measuring device - 73767D/41
- AMSA 29.08.79 AMERICAN STERILIZER D22 E13 S05 #CA 1108-372
Sub-atmospheric sterilisation with ethylene oxide - 39930C/22
- *AMST- 14.08.80 AMER STERILIZER D22 (D16) *US 4291-122
Biological indicator for sterilisation processes - 75638D/41
- *AMSU= 25.10.77 A MED SURGERY INST B05 D22 *SU-797-692
Dressing material prepn. - 75260D/41
- ANIS 30.10.74 ANIC SPA D23 E19 = NL-167-953
Octene-nitrile derivs for perfumery use - 36385X/20
- ANIS 23.03.76 ANIC SPA D15 M25 X25 = CA 1108-090
Treating waste water to remove transition elements, esp. vanadium - 68835Y/39
- ANVR 18.12.74 AGENCE NAT VALORISATION B05 D16 E19 = IT 1051-637
Organic acids from nitriles - 50006X/27
- APPE/ 05.01.78 APPENZELLER V D15 J01 = SU-797-548
Filter for reverse osmosis or ultrafiltration - 52733B/29
- *AQUA- 26.03.80 AQUACULTURE INT LTD D15 *WP 8102-661
Restaurant system holding live fish - 75686D/41
- ASAH 28.12.74 ASAH KASEI KOGY A97 D16 = IT 1051-993
Adsorption agents for polyphenols in wines, beers, juices - 54514X/29
- ASAH 11.07.79 ASAH KASEI KOGYO B05 D16 = FR 2476-085
Fermentative prodn. of salicylic acid derivs. and analogues - 09011D/06
- ATLA- 12.02.79 ATLAS PACIFIC ENG D13 = CA 1108-502
Vegetable cleaning and peeling appts. - 60918C/35
- *AZOV= 18.07.78 AZOV-BLACK SEA FISH D12 *SU-797-637
Fish aligning mechanism - 75239D/41
- *BABW 00.00.78 BABCOCK-BSH AG D11 *DE 3011-377
Wheat gluten thermal treatment - 73942D/41
- BADI 18.12.69 BADISCHE ANILIN & S A15 B05 D25 E19 (A16 A66 B03 D22) = IT 1051-558
Ammonium betaine tenside - 43779S/26
- BADI 11.09.78 BASF AG D23 E17 (E19) = EP G008-741
Prepn. of carbonyl cpds., esp. citronellal - 20587C/12
- BADI 15.03.79 BASF AG D13 E13 = US 4290-960
Fruit aroma furaneol 2,5-di:methyl-4-hydroxy-2,3 di:hydro-furan-3-one - 69891C/40
- BADI 01.09.79 BASF AG C02 D22 E13 F09 = CS 8005-834
Fungicide 1-phenyl:propyl-imidazole and -1,2,4 triazole derivs. - 21614D/13
- BADI 29.02.80 BASF AG D18 E21 F06 = DE 3007-628
Dyeing fleece wool with min. dyeing or leather - 68217D/38
- *BADI 20.03.80 BASF AG D23 E13 *EP--36-433
Di:methyl-hydroxy-di:hydro-furanone synthesis - 74030D/41
- *BADI 22.03.80 BASF AG A97 D25 E17 *EP--36-550
Isopropyl end-modified alkoxyated fatty alcohol surfactant prepn. - 74070D/41
- *BADI 24.03.80 BASF AG A60 C02 D22 E13 *DE 3011-258
Fungicides contg. 1,2,4-triazole derivs. - 73933D/41
- BAHR/ 13.10.78 BAHR A D15 = CA 1108-467
Conveyor belt press filter for sludge - 29758C/17
- BAKP 19.02.80 BAKER PERKINS LTD D11 = FR 2476-291
Travelling baking oven - 62820D/35
- BAKP 19.02.80 BAKER PERKINS HOLDI D11 = SE 8101-048
Travelling baking oven - 62820D/35
- *BARN- 21.03.80 BARNANGEN DEUTSCHLA D13 *DE 3010-836
Sugar free chewing gum of high water content - 73892D/41
- *BASH= 23.01.79 BASHKIR PETR IND D22 E12 H01 *SU-798-049
Flooded oil strata sulphate reducing bacteria growth suppression - 75407D/41
- *BAUE/ 12.02.79 BAUER W J D15 *US 4290-890
Sludge dewatering using buoyant vehicle - 75543D/41
- BAUM/ 07.07.78 BAUMAN L D15 = US 4290-982
Submersible mat for air injection into bubble bath - 82566B/46
- BEAU- 03.03.80 BEAUDREY E & CIE D15 = FR 2477-028
Filter for industrial waters - 51687D/29
- *BEAU- 03.03.80 BEAUDREY E & CIE D15 J01 *FR 2477-195
Double:flow, endless chain filter, esp. for water - 74270D/41
- BEEC 04.08.78 BEECHAM GROUP LTD A96 D21 E15 #CA 1108-052
Skin treating compsn. based on oil-in-water emulsion - 11912B/07
- *BEGO- 22.03.80 BEGO BREMER GOLDSCH D21 M22 S05 *DE 3011-098
Precision casting, esp. of metal dental prostheses - 73915D/41
- BENC 22.06.78 BENCKISER-KNAPSACK D13 E17 (D17) = CA 1108-649
Poly:alcohol esp. xylitol prepn. - 03828C/03
- BENC 21.12.79 BENCKISER J A GMBH A92 D22 (D25) = DK 8005-463
Deodorising plastic sachet to hang inside dish washing machine - 25438D/15
- *BENC 21.03.80 BENCKISER-KNAPSACK D13 *DE 3010-832
Pure soluble whey proteins prodn. - 73891D/41
- BESL/ 11.04.79 BESLER H C04 D16 E17 H09 (D15) = CS 8002-398
Methane produced from organic waste in fermenting vessel - 60520C/35
- BGDR 23.09.69 BIG DRUM INC D13 = NL-167-840
Apparatus for making cornet ice creams - 67477R/37
- *BIRG- 18.02.80 BIRGIT OCH I TROENG D15 X25 *SE 8001-258
Tap water ionisation - D/41
- BLAC- 27.12.76 BLACK KNIGHT INVEST A96 D21 (A14) = CA 1107-990
Plastic jaw impression spoon - 48082A/27
- BLAN/ 05.06.67 BLANCC B05 D21 = IT 1051-552
Prepn of a toothpaste compn - 35104F/00
- *BOBR= 26.12.78 BOBRUISK LEATHER CO D18 *SU-796-240
Compsn. for oiling leather - 75107D/41
- BOEF 11.08.69 BOEHRINGER MANNHEIM GMBH B04 D16 S03 S05 = NL-168-049
Enzymatic conversion of glucose - 15069S/08
- BOEF 23.07.70 BOEHRINGER MANNHEIM GMBH D17 J01 = SU-797-547
Chromatographic separation process - 07962T/05
- BOEF 09.06.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 S03 (S05) = J8 1039-198
Substrates compsn. or enzymatic activity evaluation - 81194Y/46
- BOEF 09.06.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 S03 (S05) = SU-797-592
Substrates compsn. or enzymatic activity evaluation - 81194Y/46
- BOEF 14.12.77 BOEHRINGER MANNHEIM GMBH B04 D16 = CA 1108-050
Storage-stable cholesterol:oxidase preparations - 56929A/32
- BOEF 14.06.78 SUDDEUT ZUCKER AG D17 E17 = EP G006-162
Xylitol recovery from residual syrups - 00106C/01

- * BOTT- 25.03.80 BOTTROPER STAHLBAU D15 L02 *DE 3011-379
Cement mixer flushing water neutralisation - 73943D/41
- * BROW/ 03.10.78 BROWN A D D15 *US 4290-887
Appts. for decanting surface liquid - 75541D/41
- BRTA 26.01.72 BRIT AMER TOBACCO LTD D18 E34 (E32) = NL -167-845
Tobacco-smoke filter - 45670U/33
- * BRTO 31.03.80 BOC LTD D23 E17 *GB 2072-656
Decolourising organic cpds., esp. fatty acid(s) - 74335D/41
- BUCHM 27.07.76 BUCHERGUYER MASCH D15 = NL -167-859
Aeration of foaming liquors - 10641A/06
- BURT- 26.02.75 BURTON-CORBLIN D13 = IT 1051-636
Moulds for the production of cheese - 00372Y/01
- * BUTL/ 25.03.80 BUTLER M P A32 D21 M22 (A96) *GB 2072-567
Making investment casting form - 74315D/41
- * CALI- 04.03.80 CALIGEN FOAM LTD A35 D25 E17 (A97) *GB 2072-533
Impregnation of foam sheet with melted substance - 74308D/41
- CARB- 08.09.77 CARBO MEDICS INC D22 L02 = EP G001-147
Joint prosthesis element - 22411B/12
- CARL 15.12.72 CINCINNATI MILACRON INC A97 D25 E13 = NL -167-990
Washing agents contg. cpds. to combat skin irritation - 49607V/27
- CARL- 03.09.63 CARLTON & UTD BREWE D16 = IT 1051-714
Hop concentrates - 43223U/31
- * CART/ 30.07.79 CARTER F A D15 *US 4290-379
Surface foam suppression on detergent contaminated lagoon - 75444D/41
- * CARV/ 18.10.78 CARVER J D16 S03 *US 4290-300
Sucrose density gradient soln. - 75439D/41
- * CAVA/ 30.05.80 CAVALLIA D14 X27 *BE -888-969
Domestic ice cream making machine - 73754D/41
- * CEPA 14.02.77 CELLULOSE PAPER IND RES D15 J01 M12 *SU -798-047
Removing heavy metals from etching waste - 75405D/41
- * CEPA 24.03.80 ASTRAKHAN CELL-PAPE D15 *DE 3011-276
Sulphate fibre mfr. effluents purificn. - 73934D/41
- CESK 03.01.80 CESKOSLOVENSKA AKAD C04 D15 (C03 D13) #DK 8000-026
Processing of nitrogen contg. organic materials - 50256D/28
- CGDA 22.11.68 CIE GEN AUTOMATISME A18 D16 = NL -167-994
Growth of bacteria - 35838R/20
- CHAR/ 21.11.77 CHARM S E B04 D13 J04 S03 (S05) = CA 1108-516
Detection of antibiotics in liquid samples e.g. milk, body fluid - 24010B/13
- CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) = CA 1108-463
Terpene(s) steam-distilled from aromatic plants - 40655B/22
- CHIN 18.02.80 CHINOIN GYOGYSZER A97 D13 = NO 8100-530
Flavouring tea using granules of suspensions - 47846D/27
- CHIN 18.02.80 CHINOIN GYOGYSZER A97 D13 = SE 8101-071
Flavouring tea using granules of suspensions - 47846D/27
- * CHLA- 14.03.80 CHEMS LAB LANGE F W C03 D13 *DE 3009-950
Animal feed additive contg. alkanolic diethanolamide - 73868D/41
- CHRI- 08.08.77 CHRIST FILS SA D13 (D15 D16) = GB 1599-618
Proteinaceous food made by controlled fermentation of waste water - 25801A/14
- CIBA 13.02.70 CIBA GEIGY AG B02 C02 D22 = NL -167-959
8-hydroxyquinoline acrylates, bactericides and fungicides - 54772S/34
- CIBA 23.12.75 CIBA GEIGY AG A60 C01 D22 E12 = CA 1108-150
Triorgano-tin cyano-metallate cpds. - 49782Y/28
- CIBA 26.05.77 CIBA GEIGY AG B04 C03 D13 (D16) = CA 1108-001
Avilamycin antibiotic as animal feed additive - 86132A/48
- CIBA 08.08.78 CIBA GEIGY CORP A60 D22 E14 F09 (F06) = US 4290-846
Protecting (in)organic materials against decay by microorganisms - 14991C/09
- * CIBA 27.03.80 CIBA GEIGY AG C02 D22 E13 F09 (D15) *GB 2072-669
4-halo-4-subst.-methyl-oxetane-2-one derivs. - 74341D/41
- * CLEV- 25.08.78 CLEVPAK CORP D15 *US 4290-884
Removal of BOD and nitrogen values from waste water - 75539D/41
- CNSM 21.11.79 CENTRALE SUIKER MIJ NV D15 #CS 7908-013
Supply system for anaerobic biological treatment tank - 85963B/48
- CNSM 21.11.79 CENTRALE SUIKER MIJ NV D15 #CS 7908-014
Anaerobic effluent treatment tank with reaction and settlement zones - 85962B/48
- COLG 05.08.68 COLGATE PALMOLIVE CO A96 D21 E37 = IT 1051-553
Agglomerated particles which form a water-insol dental polishing agent - 07345R/05
- COLG 25.05.77 COLGATE PALMOLIVE CO B06 D21 E34 = CA 1108-057
Dentifrice compsn. contg. mono:fluorophosphate and fluoride - 68966A/39
- COLG 25.05.78 COLGATE PALMOLIVE CO A96 D21 E19 (A25 E33) = GB 1599-689
Dentifrice paste compsn. contg. calcium carbonate - 71767B/40
- COLG 17.12.79 COLGATE PALMOLIVE CO A96 D22 (A11) = DK 8005-359
Absorbent material used for medical dressings, hygiene etc. - 30825D/18
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = DK 8005-305
Dentifrice compsns. based on aq. sorbitol - 53443D/30
- COLG 19.12.79 COLGATE PALMOLIVE CO B06 D21 E34 (E33) = DK 8005-331
Dentifrices which aid remineralisation of enamel - 30832D/18
- COLG 19.12.79 COLGATE PALMOLIVE CO A96 D21 = DK 8005-439
Dentifrices showing reduced tendency to dry out - 30831D/18

- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = DK 8005-242
Soap bars contg. anti-cracking agent - 32610D/19
- COLG 20.12.79 COLGATE PALMOLIVE CO D21 E12 (D25) = DK 8005-306
Soap bars contg. anti-cracking agent - 32609D/19
- COLG 20.12.79 COLGATE PALMOLIVE CO A96 D22 = DK 8005-339
Absorbent pad for immobilising liquids - 34324D/19
- COLG 00.00.80 COLGATE PALMOLIVE CO A96 D21 E19 (A25 E33) = GB 1599-690
Dentifrice paste compsn. contg. calcium carbonate - 71767B/40
- COMP 31.12.74 SAINT GOBAIN TECH N D15 J01 = IT 1051-957
Removal of solids in flotation processes - 54194X/29
- COMS 13.04.78 COMMISS ENERGIE ATOMIQUE D22 (D15) = EP G005-103
Air conditioning system for greenhouse - 79471B/44
- * CONB- 23.01.80 CONBILON INC D16 *J5 6106-588
Biological culture medium of low methoxylated pectin prepn. - 74476D/41
- COND- 10.03.80 CONDUCTA GES D15 J04 S03 = DE 3009-130
Colloidal index determ. of liquids esp. water - 70174D/39
- * CONF= 06.10.76 CONFECTIONERY IND D13 *SU -797-645
Confectionery mass continuous prodn. mechanism - 75246D/41
- CORP 15.06.77 CPC INTERNATIONAL INC D13 = CA 1108-466
Removing skins from raw peanuts - 06437B/04
- * CORP 03.04.78 CPC INTERNATIONAL INC D11 *US 4291-065
Stale-resistant sweet baked food prods. - 75614D/41
- CORP 05.02.80 CPC INTERNATIONAL INC A97 D16 (D17) = J5 6109-586
Prepn. of immobilised glucose isomerase - 60948D/34
- * CORP 24.03.80 CPC INTERNATIONAL INC A96 B04 D16 *EP --36-662
Glucose isomerase immobilised on porous phenolic resin - 74130D/41
- * CRAW/ 20.04.78 CRAWFORD F A D15 *GB 1599-809
Water distn. plant - 74290D/41
- * CTAF- 25.03.80 CTA-FINANZ AG B05 C03 D13 *DE 3011-435
Compsn. contg. maleuric acid for treating orotic acid deficiency - 73948D/41
- CTWA- 20.08.76 CONTINENTAL WATER C D15 S03 = CA 1108-235
End point quality control light circuit - 38327A/21
- DAIL 19.07.77 DAICEL LTD D18 E33 = GB 1599-692
Filter for tobacco smoke - 20245B/11
- DAIN 24.01.80 DAINIPPON PHARM KK B04 D21 (D16) = J5 6106-593
Alkaline protease M3 from Streptomyces globisporus ATCC 21553 - 62877D/35
- DAND- 21.11.77 DANDY J CO C03 D13 = CA 1108-462
Extruded dry pet food contg. aldo-hexose(s) or keto-hexose(s) - 59769B/32
- DANO- 08.03.78 DANOCHMO A/S B05 C03 D13 (D16) = CS 7901-499
Animal feed additive for normalising intestinal microflora - 68372B/38
- * DAUC 31.01.80 DAIICHI SEIYAKU KK B04 D16 *J5 6108-712
Activating agent for lecithin cholesterol acyl transferase - 74700D/41
- * DEGM 26.03.80 DEGREMONT SA D15 J01 *EP --36-793
Water filter with water distribution gutter - 74195D/41
- DEGS 18.06.77 DEUTSCHE GOLD AND SILBER D25 E33 = GB 1599-549
Aluminosilicate cpds. contg. combined surfactants - 91495A/51
- DEGS 13.03.80 DEGUSSA AG D21 M26 = EP --36-556
Gold-free cobalt-chromium-palladium alloy - 70058D/39
- * DEGS 27.03.80 DEGUSSA AG D25 E33 *DE 3011-834
Very fine crystalline sodium alumino-silicate zeolite prodn. - 73993D/41
- * DENT- 19.11.79 DENTAL CONCEPTS INC B06 D21 E32 (B05 E13 E17) *US 4291-017
Reducing adherence of plaque to teeth - 75595D/41
- DEUS 09.11.78 DEGESH GMBH D13 #DK 7905-407
Fumigation of agricultural prod. e.g. flour or rice - 34494C/19
- * DEUT- 29.05.78 DEUTSCHER PPTY LTD D12 *CA 1108-359
Clamp to close animal weasand during slaughtering - 73778D/41
- * DGON/ 08.11.78 DEL SER GONZALEZ C D13 *US 4290-350
Pitting olives and stuffing with anchovy paste - 75443D/41
- DIAS 16.01.80 DIAMOND SHAMROCK CORP A93 D25 E12 L02 = US 4290-817
Ammonia odour elimination from water soluble glucoheptonate salt - 57245D/32
- DICK- 21.03.80 DICKMANN & CO GMBH D11 = EP --36-593
Coated porous sugar article prodn. - 12039D/08
- DIEP- 16.03.77 DIEPALSA D11 = CA 1108-368
Double-screw extruder outlet for paste strips - 51657A/29
- * DMVC- 28.03.80 DMV-CAMPINA BV D13 *GB 2072-481
Cheese mfr. - 74297D/41
- * DNII 01.02.80 DAINIPPON INK INST CHEM D25 E19 K01 *J5 6108-747
Fluorine-contg. aminoacid amphoteric cpds. - 74722D/41
- * DNIN 01.02.80 DAINIPPON INK CHEM KK D25 E19 K01 *J5 6108-747
Fluorine-contg. aminoacid amphoteric cpds. - 74722D/41
- DOWA 14.12.77 DOWA MINING CO LTD D15 J01 M25 = CA 1108-376
Removal of arsenic from solns. of sulphuric acid - 29781B/16
- DOWC 14.12.77 DOW CHEMICAL CO A97 C03 D22 E19 (A25 D15 D25) = CA 1107-908
Stabilised aq. antimicrobial slimicidal compsn. - 47414B/26
- DOWC 08.06.78 DOW CHEMICAL CO D15 E37 J04 M11 (J03 S03) = CA 1108-517
Determn. of acid or basic cpds. in aq. soln. of salts - 91403B/51
- DOWO 27.07.77 DOW CORNING CORP A96 C03 D21 (A26) = NL -167-982
Emulsions of polar liq. in methyl-siloxane fluid - 80048A/44

- DUBO/ 14.04.80 DUBOIS G E B05 D13 E19 *US 4290-975
Sulphamation of primary organic amine - 75579D/41
- DUPO 20.02.80 DU PONT DE NEMOURS CO A88 D15 = NO 8100-566
Water desalination by falling-film evaporator - 66392D/37
- DYNL 09.03.79 DYNAPOL B05 D13 E14 *US 4290-957
4'-Alkoxy-3'-hydroxy-7-substd.-flavanone derivs. - 75573D/41
- *EOA= 17.08.78 E COAL CHEM RES INS D15 *SU -798-036
Quantitative determ. of nitrate in waste water, soil etc. - 75394D/41
- ECON 08.07.77 ECONOMICS LAB INC D25 E17 (E14) = GB 1599-460
Washing oil-soiled fabrics in two steps - 06276B/04
- ECOT- 02.05.72 ECO TEO LTD D15 J01 M11 = IT 1051-561
Ion exchange concg of solns - 74402U/49
- EGYE- 19.07.78 EGYE SULT MUSZAKI D15 #US 4290-894
Purificn. of esp. oil polluted water - 72835A/41
- *EISA 04.02.80 EISAI KK B04 C03 D16 *J5 6108-717
Drugs for preventing or treating pullorum or diarrhoea - 74703D/41
- ELPA 19.05.78 EL PASO PRODUCTS CO D13 E15 = CA 1108-647
2-Hydroxy-2-cyclopentene-1-one synthesis from glutarate di:ester - 71627B/39
- ELSA/ 09.05.77 EL-SAYED R M D15 = CA 1108-318
Rapid sewage treatment under anaerobic conditions - 86442A/48
- ENGC 18.03.80 ENGLISH CLAYS LOVER D15 J01 = BR 8101-597
Tube pressure filter esp. for clay slurries - 72165D/40
- *ESIT= 24.07.78 E SIBE TECHN INST D12 *SU -797-635
Poultry carcass feed onto suspension tracks - 75237D/41
- *ESTE/ 17.03.80 DE CASTRO ESTEVES F D16 *BR 8001-707
Still - D/41
- EURO- 22.02.80 EUROTECH INTER LTD D15 H03 J01 = NO 8100-595
Pumping apparatus for collecting polluted liquids - 64691D/36
- EURO- 22.02.80 EUROTECH INT LTD D15 H03 J01 = SE 8101-115
Pumping apparatus for collecting polluted liquids - 64691D/36
- FARB 01.09.77 BAYER AG A25 D18 (A97) = CA 1108-338
Water-soluble oligo-urethane resins contg. quat. gps. - 22205B/12
- FARB 11.04.78 BAYER AG B04 D16 J04 S03 (B05 S05) = CA 1108-624
N-Carboxy:acyl amino acid ester derivs. - 75673B/42
- FARB 13.10.78 BAYER AG A97 C03 D16 (A21 A60 D13) = EP G010-243
Modified biomass prodn. - 33050C/19
- FARB 26.05.79 BAYER AG C02 D16 = J5 6109-591
Fermentative prodn. of herbicidal piperidine deriv. - 08086D/06
- *FARB 18.03.80 BAYER AG A14 D21 E15 (A60 A96) *DE 3010-373
Polymerisation of methyl methacrylate with enol ether - 73880D/41
- *FARE= 25.04.78 FARE FISHING IND D12 *SU -797-639
Fish gutting process by vacuum suction from beheaded fish - 75241D/41
- *FARE= 13.12.78 FARE POLY D12 X25 *SU -797-636
Fish dressing machine charging appts. - 75238D/41
- FARH 09.06.69 HOECHST AG A33 D15 J01 (A88) = NL -167-855
Reinforced tubular semi-permeable membrane - 90225R/48
- FARH 03.03.79 HOECHST AG C02 D22 E13 = DD -149-453
Fungicidal phenyl-beta-triazolyl or imidazolyl acrylic acid derivs. - 69837C/40
- FARH 19.03.79 HOECHST AG D13 E36 = DD -149-499
Phosphoric acid purificn. from organic impurities - 71684C/41
- FARH 19.03.79 HOECHST AG D13 E36 = J5 6109-805
Phosphoric acid purificn. from organic impurities - 71684C/41
- FARH 26.03.80 HOECHST AG D15 J04 = DE 3011-614
Liquid gasified in downward flow multistage tower - 74096D/41
- FARH 26.03.80 HOECHST AG D15 E36 = DE 3011-615
Ozone absorption by downward flowing water in tower - 74097D/41
- *FARH 26.03.80 HOECHST AG D15 J04 *EP --36-598
Liquid gasified in downward flow multistage tower - 74096D/41
- *FARH 26.03.80 HOECHST AG D15 E36 *EP --36-599
Ozone absorption by downward flowing water in tower - 74097D/41
- *FERM= 28.02.79 FERMENTATION PRODS D16 (D17) *DD -149-544
Starch hydrolysate(s) mfr. for alcohol fermentation - 73833D/41
- *FERM= 20.03.79 FERMENTATION PRODS D14 *SU -797-649
Impurity removing mechanism for potatoes - 75250D/41
- *FERO 22.05.80 FERROSAN D13 S03 (D16) *BE -888-943
Detecting butyric acid generating bacteria in milk - 73747D/41
- FICH/ 09.10.79 FICHERA A T B03 D13 E13 = DK 8004-242
Tobacco smoking inhibiting compsn. - 79357C/45
- FINN- 28.02.78 FINNPIPETTE OSMO A B04 D16 J04 S03 (S05) = US 4290-997
Automatic measurement of agglutination test samples - 64904B/36
- FINN- 17.01.80 FINNPIPETTE OSMO KO B04 D16 S03 (S05) = J5 6106-154
Detection of faecal human haemoglobin specifically - 57266D/32
- *FISO 17.06.77 FISONS LTD C02 D16 *GB 1593-412
Herbicidal suspension of trietazine and simazine - 74277D/41
- *FITZ/ 24.03.80 FITZGERALD J E C04 D15 *WP 8102-684
Appts. for sepg. solids from slurry - 75695D/41
- *FIVE 11.04.74 FIVES-CAIL BABCOCK D17 *FR 2477-177
Extn. of sugar from suspension of bagasse in washing juice - 74266D/41
- FLEC- 30.10.79 FLECKENSTEIN L W D15 = US 4290-451
Automatic controller for domestic water softener - 34776D/20
- FLUX- 03.03.80 SOC CIV FLUX-YANG D16 S05 = FR 2477-022
Field of permanent magnet applicator adjusts yin and yang - 70231D/39
- FMCC 23.12.74 FMC CORP C03 D22 E19 (C01 D15) = IT 1051-851
Water-soluble chlorine-releasing composition - 52580X/28
- FMCC 25.08.75 FMC CORP D25 E34 = J8 1039-799
Storage stable detergent compsn. contg. sodium perborate and activator - 25846Y/15
- FOOD- 20.08.70 FOOD TECH INC D13 = DS 2141-329
Solid product prepn from maize syrup - 14427T/09
- FRIE- 10.02.79 FRIEDRICHSFELD GMBH D22 L02 = DS 2937-842
Artificial ear bone - 61647C/35
- *FRIY 10.12.79 FRITO-LAY INC D11 *US 4290-989
Appts. for simultaneous extrusion of dough ribbons - 75583D/41
- FRRR 17.12.75 FERRERO P & CIA SPA D14 = IT 1051-635
Industrial prodn. of food items cut by laser beam - 29160Y/17
- FRRR 31.01.78 FERRERO OHG B06 D21 (D16) = GB 1599-748
Anticariogenic foods and pharmaceuticals - 58290B/32
- GCDE- 30.06.78 G-C DENTAL IND CORP A96 D21 = DS 2926-405
Dental silicone compsns. curable at room temps. - 05690C/04
- *GENE- 24.03.80 GENENTECH INC B04 D16 *EP --36-776
Prodn. of polypeptide(s) from recombinant bacteria - 74186D/41
- GENO 04.10.76 GENERAL FOODS CORP B05 D21 E14 #CA 1108-004
Preventing dental enamel demineralisation and caries formation - 30358A/17
- GENO 24.02.77 GENERAL FOODS CORP A97 D13 = CA 1108-063
Preferential removal of caffeine from aq. coffee extracts - 68806A/38
- *GENO 21.07.78 GENERAL FOODS CORP D11 *CA 1108-006
Flour compsn. is a mixt. of starch diluent - 73766D/41
- *GENO 17.03.80 GENERAL FOODS CORP D13 *EP --36-738
Rapidly soluble sweetener for dry beverage mixes - 74175D/41
- GIVA 30.03.79 GIVAUDAN L & CIE SA D22 E14 = EP G017-141
Purificn. of crude 2,4,5-tri:chlorophenol - 60456C/34
- *GOOD/ 12.09.79 GOODWIN J D12 *US 4290-201
Dressing-knife guide for hunters - 75428D/41
- GOSE- 19.07.77 GOSEI KAGAKU INST LTD D18 E33 = GB 1599-692
Filter for tobacco smoke - 20245B/11
- *GPOL= 22.06.78 GEOR POLY D13 *SU -797-641
Black tea producing process - 75243D/41
- GRAC 29.11.76 GRACE W R CO D22 E16 = CA 1108-643
Ammonium alkanolate salts prodn. - 40715A/23
- GRAC 10.12.76 GRACE W R CO A96 B04 D16 S03 (A25 S05) = CA 1108-072
Fixing protein, esp. enzyme, on polyurethane - 23384A/13
- *GRAC 16.01.80 GRACE W R CO D25 *J5 6107-075
Fabric softener foam compsn. prodn. - D/41
- GRAC 22.02.80 GRACE W R CO D25 E16 (D15) = SE 8009-106
Sec. amine prodn. from olefin cpds. - 47872D/27
- GRAC 22.02.80 GRACE W R CO A26 D15 E16 G02 (E14) = SE 8009-107
Alkylation of poly:amine for mfr. of surfactants, softeners, etc. - 47873D/27
- GRAC 22.02.80 GRACE W R CO A14 D25 G02 (D15) = SE 8009-109
Prepn. of poly:amine:amide polymer - 47871D/27
- *GRUN/ 08.03.80 GRUNEWALD A D15 *DE 3008-961
Sewage sludge treatment - 73856D/41
- HACK/ 29.09.75 HACKER K A35 D18 F08 = CS 7606-173
Process for continuous softening of leather - 27310Y/16
- *HALL/ 05.05.80 HALLEN LA D15 *WP 8102-730
Rotating biological contactor with body segments - 75708D/41
- *HANC/ 02.08.79 HANCOCK M C D16 *GB 2072-647
Biological reactor drum filled with medium - 74331D/41
- HASH/ 12.05.77 HASHIMOTO Y D23 = J8 1039-818
Softening sperm whale oil without decreasing higher alcohol content - 04871B/03
- HAYB 01.04.68 HAYASHIBARA BIOCHEM B04 D17 = J8 1039-630
Alpha-1,6-glucosidases enzymes for hydrolysing - 09944R/07
- *HEAL= 17.01.79 HEALTH RESORT PHYSI B04 D16 J04 *SU -797-662
Bronchial pneumonia simulation - 75254D/41
- HEBE- 23.08.79 HEBENSTREIT GMBH D13 = GB 2072-482
Food product block mfr. - 21389D/12
- HEID- 07.02.77 HEIDEMAATS BEHEER A97 D15 J01 M25 = GB 1599-851
Removal of water from effluent slime - 58711A/33
- HEIN/ 25.03.80 HEINISCH L D15 = DE 3011-338
Incrustation prevention in aeration tanks - 74089D/41
- *HEIN/ 25.03.80 HEINISCH L D15 *EP --36-581
Incrustation prevention in aeration tanks - 74089D/41
- HENK 20.12.74 HENKEL & CIE GMBH A97 D25 = IT 1051-642
Machine-washing textiles and dishes - 50302X/27
- HENK 18.06.77 HENKEL KG AUF AKTIEN D25 E33 = GB 1599-549
Aluminosilicate cpds. contg. combined surfactants - 91495A/51

HENK

HENK 18.02.80 HENKEL KG AUF AKTIEN A97 D25 E17 (A25) #NT 8000-437
Pourable nonionic surfactant compsn. prodn. - 22168C/13

* HENK 14.03.80 HENKEL KG AUF AKTIEN D21 E21 *DE 3009-833
Dyeing hair with azo developing dye - 73865D/41

HENK 17.03.80 HENKEL KG AUF AKTIEN A97 D25 E33 (E11) = DE 3010-192
Low phosphate controlled foam washing agent - 72101D/40

HENK 22.03.80 HENKEL KG AUF AKTIEN D21 E24 = BR 8101-660
Oxidn. hair dyes contg. bis:(2,4-di:amino-phenoxy -alkanol coupler - 74093D/41

HENK 22.03.80 HENKEL KG AUF AKTIEN D21 E24 = DE 3011-191
Oxidn. hair dyes contg. bis:(2,4-di:amino-phenoxy -alkanol coupler - 74093D/41

* HENK 22.03.80 HENKEL KG AUF AKTIEN D21 E24 *EP --36-591
Oxidn. hair dyes contg. bis:(2,4-di:amino-phenoxy -alkanol coupler - 74093D/41

* HENK 26.03.80 HENKEL KG AUF AKTIEN D21 E17 *DE 3011-549
Hair and body cleaning compsn. - 73955D/41

HENK 26.03.80 HENKEL KG AUF AKTIEN D25 E19 = DE 3011-550
Skin-protective, wash-active aq. dish-washing soln. - 74110D/41

* HENK 26.03.80 HENKEL KG AUF AKTIEN D25 E19 *EP --36-625
Skin-protective, wash-active aq. dish-washing soln. - 74110D/41

* HENK 27.03.80 HENKEL KG AUF AKTIEN D13 *DE 3011-807
Fat compsn. suitable as milk fat substitute - 73985D/41

* HENK 27.03.80 HENKEL KG AUF AKTIEN D25 E33 *DE 3011-834
Very fine crystalline sodium aluminosilicate zeolite prodn. - 73993D/41

* HENK 27.03.80 HENKEL KG AUF AKTIEN D13 *DE 3011-881
Fat for replacing coconut oil in confectionery - 74000D/41

* HERA 26.03.80 HERAEUS QUARZSCHMEL D15 *DE 3011-574
Water distn. appts. - 73959D/41

HERO- 18.06.69 HERON ETAB D13 T05 = IT 1051-554
Carbonated drinks prepn. - 33923S/20

* HERT- 21.03.80 HERTA K SCHWEISF KG D12 *DE 3011-026
Carcass cutting station - 73912D/41

HETB 04.02.77 HEINEKEN TEC BEHEER NV D16 J04 S03 S05 = GB 1599-542
Beer carbon di:oxide content measurement - 59066A/33

* HETB 28.03.80 HEINEKEN TEC BEHEER NV D16 *DE 3015-069
Malt prodn. by treating grain with carbohydrate soln. - 74012D/41

* HETO 25.10.77 HETEROORG CPDS AS USSR B05 D22 *SU -797-692
Dressing material prepn. - 75260D/41

HIRS/ 27.01.78 HIRSCHMAN S Z D22 F07 #GB 1599-596
Feminine hygienic pads - 60241A/33

HISM 16.06.77 HISAMITSU PHARM KK A60 B05 D21 E19 (D25) = SU -797-570
4-Iso:hexyl-cyclohexane-carboxylic acid derivs. - 03426B/02

* HITA 01.02.80 HITACHI KK B04 D16 *J5 6109-596
Microbial body concn. measurement - 74932D/41

HONS 10.06.75 YAKULT HONSHA KK D13 (D16) = J8 1039-851
Stable lactic acid bacteria beverage prepn. - 08124Y/05

HONS 30.06.76 YAKULT HONSHA KK D13 (D16) = J8 1039-852
Fermented milk prods. contg. Biphido bacterium - 15107A/08

HONS 27.02.79 YAKULT HONSHA KK B04 D16 = GB 2072-502
Whole-cell antitumour agent - 65356C/37

* HORA/ 05.04.79 HORAK V A96 D22 *US 4291-133
Surface modified non-thrombogenic polymer - 75642D/41

HUBE/ 28.06.77 HUBER H D17 = US 4290-818
Waste heat recovery from evaporative sugar mfr. - 74468A/42

ICIL 18.06.71 IMPERIAL CHEM INDS LTD A96 B05 D22 E14 (A25) = NL - 167-852
Bacteriostatic cleaning compsn. - 00359U/01

ICIL 13.01.77 IMPERIAL CHEM INDS LTD B03 D16 = CA 1108-078
Tetra:hydro:furyl-acetic acid deriv. prodn. - 49712A/28

* ICIL 21.02.79 IMPERIAL CHEM INDS LTD A11 D16 G02 *EP --36-699
Extracting poly beta-hydroxy:butyric acid from bacterial cells - 74154D/41

IDEK 15.12.77 IDEMITSU KOSAN KK B05 D16 E16 = J8 1039-634
Glutathione-contg. liquor prodn. - 60550B/33

* IMAI/ 02.02.80 IMAI Y A82 D18 *J5 6109-300
Strengthened leather prepn. - 74871D/41

INFL 28.07.77 INT FLAVORS & FRAGR INC B07 D23 E13 (B03 D13 D18) = CA 1108-162
5-Alkanoyl-2-furfuryl-thio-di:hydro-2,5-di:alkyl- 2H)furan-3-one(s) - 53306A/29

INGR- 29.11.77 INGREDIENT TECH COR D17 (D13) = CA 1108-607
Agglomeration of powdered solids, e.g. carbohydrate(s) - 42722B/23

INGV 22.03.79 VER NAHRUNGSMITTELI D11 = DD -149-456
Ripening yeast for bread prod. - 70036C/40

INSF 27.12.74 INST FRANCAIS DU PETROLE A97 D15 E19 H03 = IT 1051-858
Nitrogen-contg. biodegradable surfactants - 52060X/28

INSF 27.12.74 INST FRANCAIS DU PETROLE A97 D15 E19 H03 = IT 1051-857
Nitrogen-contg. biodegradable surfactants - 52060X/28

INSF 20.12.79 INST FRANCAIS DU PETROLE A97 D15 H03 (D16) = DK 8005-455
Biodegradable dispersant compsns. for treating oil pollution - 47819D/27

INSP 21.11.79 INST PASTEUR B04 D16 = DE 3043-981
Highly purified human interferon prepn. - 42601D/24

* INTE- 01.04.80 INTEROX CHEM LTD D25 E36 *GB 2072-643
Aq. hydrogen peroxide bleach compsns. - 74330D/41

INTM 11.07.79 INT MINERALS & CHEM CORP B02 C01 D13 = J5 6108-799
Polyether antibiotic e.g. lasolacid zinc complexes - 08053D/06

* IOWA 09.07.79 IOWA STATE UNIV RES INC B04 C03 D16 *US 4291-019
Infectious bovine rhinotracheitis vaccine prepn. - 75596D/41

ISHI- 23.01.76 ISHIYAMA MISO SHOYU D16 = J8 1039-178
Suppressing putrefaction of miso with decreased salt content - 64169Y/36

ITAF 28.02.80 ITALFARMACO A11 B04 D16 (A96) = FR 2477-175
Polysaccharide copolymer with enzymatic activity prodn. - 66258D/37

ITCO- 27.10.77 INTERNATIONAL CO-OP D13 = CA 1108-464
Binder free hash brown potato prodn. - 53386D/29

IWAM/ 06.03.79 IWAMOTO T D15 = US 4290-895
Purification of waste water from ammoniacal nitrogen cpds. - 68007C/39

JAAT 30.08.74 JAPAN ATOMIC ENERGY RES A97 D16 = J8 1039-193
Polymer compsn contg enzymes or microorganisms prodn. - 29068X/16

JAAT 02.12.74 JAPAN ATOMIC ENERGY RES D16 = J8 1039-186
Settling sake dregs - 55106X/29

* JANS/ 09.10.79 JANSOVA I D15 F01 *CS 7906-845
Dyeing and spinning works waste water purificn. - D/41

JAPM 31.03.76 JAPAN MONOPOLY CORP D18 (D16) = J8 1039-183
Tobacco leaves stems etc. treatment - 82216Y/46

JAPS 18.03.77 JAPAN SYNTHETIC RUBBER A96 D21 (A14) = CA 1108-329
Aq. dental embedding compsn. contg. PVA - 69281A/39

KALI 22.03.80 KALI-CHEMIE PHARMA B05 D23 E11 (D13 D21) = DE 3011-185
Purifying lecithin by extrn. with gas under hyper critical conditions - 53458D/30

KANE 23.02.78 KANEBO KK A96 D21 E17 = US 4291-018
Lipstick having core and sheath - 65092B/36

* KANE 28.01.80 KANEBO KK A96 D21 E19 *J5 6106-999
Storage stable cream cleansing agent - 74596D/41

KANF 03.03.70 KANEGAFUCHI CHEM KK D16 H08 (D13) = IT 1051-555
Yeast-cell prodn. - 08123S/04

* KANS- 04.03.80 KANSAI CHEM ENGG D16 J04 *DE 3039-874
Multistage continuous reactor - 74018D/41

* KANS- 04.03.80 KANSAI CHEM ENG CO LTD D16 J04 *DE 3039-874
Multistage continuous reactor - 74018D/41

KAOS 11.09.75 KAO SOAP KK A96 C03 D22 E16 (D21) = J8 1039-281
Microbicides and preservatives for e.g. cosmetics or cutting oils - 20394Y/12

KAOS 28.11.77 KAO SOAP KK A97 D25 E17 (A14 A25 E14) = J8 1039-838
Low viscosity aq. stable liq. cleansing compsn. - 42661B/23

KAOS 26.12.77 KAO SOAP KK D24 E12 (D25) = J8 1039-840
Soap-filled scouring pads - 49363B/27

KAOS 25.01.78 KAO SOAP KK A97 D25 E33 = J8 1039-839
Detergent compsn. for washing textiles - 56577B/31

KAOS 17.02.78 KAO SOAP KK B03 C02 D25 E13 (D21) = J8 1039-318
Glycolipid methyl ester prodn. for sophorolipid - 63397B/35

* KATA 05.03.74 KATAKURA KOGYO KK C03 D13 *J8 1039-168
Additive for silkworm feedstuff - 75021D/41

KAWA- 04.07.79 KAWAZU SANGYO KK D17 = J8 1039-639
Granular levulose prepn. - 20387D/12

KENG/ 26.06.78 KEN G D13 (D16) = J8 1039-628
Enzymic treatment of low grade rice for use in fermentation - 13629C/08

* KERA- 19.12.75 KERATOS SRL C03 D13 *IT 1051-844
Carob fruit sugars reduction - D/41

* KFOO= 10.11.78 KAZA FOOD IND MIN D11 *SU -797-631
Dough blank setting out mechanism - 75234D/41

* KHAR= 25.12.78 KHARKOVSKII VODOKANALPRO D15 *SU -798-052
Bottom discharger for deposit removal in water tanks - 75410D/41

* KHWA= 25.12.78 KHARK BR WATER SUPP D15 *SU -798-052
Bottom discharger for deposit removal in water tanks - 75410D/41

* KIFO= 01.12.78 KIEV FOOD IND TECHN D11 X27 *SU -797-629
Electric bread baking oven - 75232D/41

* KIHA= 25.10.77 KIEV HAEMATOLOGY INST B05 D22 *SU -797-692
Dressing material prepn. - 75260D/41

KIKK 14.10.76 KIKKOMAN SHOYU KK D13 = J8 1039-173
Non-astringent soy bean milk prepn. - 41477A/23

* KIKK 28.01.80 KIKKOMAN CORP D16 *J5 6106-585
Addn. of hexenal and/or hexanol to fruit wine - 74475D/41

* KIMB 31.03.80 KIMBERLY CLARK CORP A96 D22 F07 *GB 2072-491
Disposable incontinence garment - 74298D/41

KIME= 28.02.80 KIEV MED INST A96 D16 (A14) = FR 2477-033
Polyacrylamide gels for medical and biological use - 40197D/22

* KIMI- 31.01.80 KIMITSU KAGAKU KENK C03 D13 *J5 6109-556
Animal feedstuff prepn. - 74922D/41

KIRI 31.08.77 KIRIN BEER D16 = CS 7708-312
Brewers wort prepn. - 47091A/26

KIRI 27.03.79 KIRIN BREWERY KK D16 = CS 8002-159
Rapid hop curing - 73850C/42

* KODA- 25.01.80 KODAMA KK A97 D13 *J5 6106-563
Granulating guar gum using kneading agent - 74472D/41

- KONN 19.11.74 GIST-BROCADES NV D16 (D25) = NL-167-995
Detergent compsns contg. protease - 42348X/23
- KONT- 26.03.80 KONTEK TECN CONSERV D13 *EP --36-615
Storage gas producing device - 74105D/41
- *KORT/ 29.08.77 KORTE G J C03 D13 *CA 1108-104
Feed mill for producing animal feed from grain - 73770D/41
- *KOSI/ 12.04.80 KOSINA Z D15 *CS 8002-540
Protection of underground sources of potable and industrial water - D/41
- KURE 24.08.76 KUREHA KAGAKU KOGYO B04 D16 (B07 D13) = CS 7705-415
Culture of basidiomycetes of coriolus species - 15867A/09
- KURE 13.04.77 KUREHA CHEM IND KK B04 D16 = J8 1039-288
Increasing antibiotic activity against resistant bacteria - 79384A/44
- *KURE 17.03.80 KUREHA CHEM IND KK D13 *EP --36-745
Prodn. of collagen contg. material - 74177D/41
- KURS 23.12.74 KURARAY KK B05 C03 D23 E17 = IT 1051-927
Stereospecific farnesol prepn - 50338X/27
- KURS 22.09.77 KURARAY KK D13 = J8 1039-854
Surface treatment of milk protein fibre - 39651B/21
- *KWAK/ 22.12.77 KWAK D D15 *US 4290-885
Waste water aerator with surface rotor - 75540D/41
- *KYOW 06.02.80 KYOWA HAKKO KOGYO KK B04 D16 *J5 6109-587
Genetically recombined *Corynebacterium* microbial strain prepn. - 74926D/41
- *LACL- 11.04.80 LACLEDE PROFESSIONA D22 E17 *US 4291-025
Thermally reversible agar gel topical dressing for burns etc. - 75599D/41
- LAMY/ 24.12.74 LAMY A J R A86 D21 = IT 1051-944
Adhesive hair pieces with a flexible substrate - 38121X/21
- *LAPP/ 28.03.80 LAPPALAINEN K M D15 *WP 8102-731
Treating thermally or chemically stratified water basin - 75709D/41
- *LEDO 29.08.62 LEDOGA SPA D23 E17 *IT 1051-706
Modified glyceride(s) - D/41
- *LEDO 14.12.62 LEDOGA SPA D25 E17 *IT 1051-707
Modified glyceride(s) - D/41
- *LENI 03.12.76 LENINGRAD LENSOVET TECH C03 D13 *SU -796-237
Feed grade calcium phosphate prodn. - 75104D/41
- *LICH/ 28.02.80 LICHTENBERG J P D25 E34 (E17 E34) *FR 2477-174
Rapidly dissolving washing powder compsn. in tablet form - 74265D/41
- *LIFE- 04.05.76 LIFE SAVERS INC B02 D21 *US 4291-045
Inhibition of *Streptococcus* mutans in the oral cavity - 75605D/41
- LIPT- 07.12.78 LIPTON T J INC D13 = US 4291-066
Ambient stable, starch-contg. soup, gravy, etc. concentrate - 46653C/27
- *LTE- 28.02.80 LTE LAB TECH EURO B03 D13 E13 (B07) *FR 2476-986
Stabilising vitamin/C against oxidn. in food and pharmaceuticals - 74242D/41
- *MADU 25.03.80 MADAUS CO B04 D16 *DE 3011-461
Use of *Propionibacterium* spp. in tumour therapy - 73953D/41
- MANO- 25.10.77 MANOR ENG CO LTD D15 J01 = EP G002-101
Filter press with filter plate stack - 40973B/22
- MARU- 25.08.78 MARUHO KK B04 D16 = J8 1039-636
Reagent for determ. of guanase - 26538C/15
- MASI 24.05.76 MASSACHUSETTS INST TECH B04 D16 S03 S05 = J8 1039-197
Test method for detecting mutagenesis - 88536Y/50
- *MASZ- 24.03.80 INST MASZYN SPOZYW D12 *DD -149-457
Meat and bone separating screw - 73786D/41
- *MATT/ 21.12.79 MATTIASSON B G A96 B04 D16 J01 *SE 7910-639
Polymer materials contg. fixed biological materials - 75044D/41
- *MATU 29.01.80 MATSUSHITA ELEC IND KK D16 J03 *J5 6106-148
Enzyme electrode mfr. - 74441D/41
- *MAZN 01.02.80 MARUZEN KASEI KK B03 D13 E13 *J5 6109-568
Crude Stevia extract refining - 74923D/41
- MAZN 27.02.80 MARUZEN OIL KK A13 B04 C03 D22 (A96 A97) = GB 2072-508
Poly para-hydroxy styrene(s) - 72209D/40
- *MAZP 30.01.80 MARUZEN PETROCHEM KK B05 D23 E17 *J5 6108-721
Liq. branched chain opt. unsaturated higher aliphatic alcohol(s) - 74705D/41
- *MCOB- 28.03.80 MCO BYGGNADS AB D15 (D16) *GB 2072-649
Fermentation plant produce gas from manure - 74333D/41
- *MEDI= 25.10.77 MED POLYMERS INST B05 D22 *SU -797-692
Dressing material prepn. - 75260D/41
- *MEDX 29.02.80 MEADOX MEDICALS INC A96 D22 F01 (A23 A35) #FR 2477-009
Ligament or tendon prosthesis - 51457C/29
- MEIJ 31.08.77 MEIJI SEIKA KK D16 = CS 7708-312
Brewers wort prepn. - 47091A/26
- MEIJ 31.08.77 MEIJI SEIKA KK D16 = CS 7708-312
Brewers wort prepn. - 47091A/26
- *MEIJ 31.03.80 MEIJI SEIKA KAISHA B03 D13 E13 (D16) *GB 2072-679
Low-cariogenic sweetener compsn. - 74345D/41
- *MEIK- 22.05.80 MEIKO MASCH APP MEI D14 X27 *BE -888-930
Machine to wash and dry vegetables in rotary basket - 73742D/41
- *MEND/ 29.04.65 MENDOZZA G D13 *IT 1051-718
Easter egg filled with sweets and novelties - D/41
- MERE 09.10.78 MERCK PATENT GMBH B07 D22 = US 4291-013
Resorbable moulded prods. based on collagen - 30514C/17
- *MERI 28.02.79 MERCK & CO INC A11 D16 G02 H01 (A97 D17) *US 4291-156
Hetero-polysaccharide S-53 thickening agent - 75649D/41
- METX 04.09.79 METALLWERK PLANSEE D22 M26 (M21) #J5 6109-650
Hollow nail with longitudinal ribs, for fixing bone fractures - 20592C/12
- MILE 06.03.78 MILES LABORATORIES INC D13 = CA 1108-003
Preparing products analogous to cheese - 50906B/28
- MILE 13.11.79 MILES LABORATORIES INC B04 D16 E19 (D13) = US 4290-773
Benzidine-type indicator test compsn. - 44388D/25
- *MILE 20.03.80 MILES LABORATORIES INC B04 D16 J04 *EP --36-543
Test strip for semi-quantitative glucose determination in urine - 74066D/41
- *MINE= 25.04.74 MINED CHEM RAW MATL D15 *SU -798-051
Liquids surface aeration - 75409D/41
- MITN 14.02.74 MITSUBISHI GAS CHEM IND D16 = J8 1039-188
Cultivation of *Torulopsis methanoescole* - 84000W/51
- MITN 17.03.76 MITSUBISHI GAS CHEM IND D13 = J8 1039-172
Bean milk prodn. from soya with good protein extrn. - 78733Y/44
- MITN 21.12.78 MITSUBISHI GAS CHEM IND B05 D16 = J8 1039-880
Coenzyme/Q-10 prodn. - 57490C/33
- *MITN 23.01.80 MITSUBISHI GAS CHEM IND B05 D16 *J5 6106-597
Coenzyme/Q 10 prodn. by e.g. culturing *Corynebacterium* - 74481D/41
- MITN 24.01.80 MITSUBISHI GAS CHEM IND B04 D16 S03 = J5 6106-591
Peroxidase enzyme microbiological prodn. - 81134C/46
- *MITN 17.03.80 MITSUBISHI GAS CHEM IND D13 E36 *EP --36-575
Absorbent for oxygen and carbon di:oxide - 74087D/41
- *MITN 27.03.80 MITSUBISHI GAS CHEM IND C03 D15 E36 *DE 3011-932
Inhibiting growth of marine organisms on surfaces - 74005D/41
- *MITO 01.02.80 MITSUBISHI HEAVY IND KK D15 *J5 6108-587
Treating waste water contg. free chlorine etc. - 74694D/41
- *MITO 04.02.80 MITSUBISHI HEAVY IND KK D15 M12 *J5 6108-885
Processing pickling plant waste waters - 74778D/41
- *MITR 30.01.80 MITSUBISHI RAYON KK A11 D17 F01 *J5 6106-901
Prodn. of spun or moulded prods. from chitosan - 74529D/41
- MITU 21.06.73 MITSUBISHI CHEM IND KK D15 E14 = J5 0019-258
Treatment of waste water contg. nitrophenol - 74999D/41
- *MITU 21.06.73 MITSUBISHI CHEM IND KK D15 E14 *J8 1036-994
Treatment of waste water contg. nitrophenol - 74999D/41
- MITU 25.11.76 MITSUBISHI CHEM IND KK D13 = J8 1039-174
Soybean milk prodn. - 52506A/29
- MITU 27.11.76 MITSUBISHI CHEM IND KK D13 = J8 1039-175
Soybean milk prodn. - 52508A/29
- *MITU 31.01.80 MITSUBISHI CHEM IND KK D17 E13 *J5 6109-598
Refining fructose-contg. sugar soln. - 74934D/41
- *MITU 05.02.80 MITSUBISHI CHEM IND KK B01 D16 *J5 6109-594
5-Beta-3-one steroid prodn. - 74930D/41
- *MIYA- 31.01.80 MIYAGI KAGAKU KOGYO D13 *J5 6106-578
Vegetable poly:hydric phenol-contg. cold drinks and gelatinous foods - 74473D/41
- MODO- 09.10.79 MODO-CHEMETICS AB D15 #US 4290-269
Power generation from organic waste combustion - 31335C/18
- *MOEL/ 19.03.80 MOELLER H W D16 *WP 8102-660
Commercial farming of marine and fresh-water plants and algae - 75685D/41
- *MOHN/ 20.03.80 MOHNKE H D12 *DD -149-458
Fish processing machine - 73787D/41
- *MOMD 26.02.79 MOSCOW MEAT DAIRY INST D12 X25 *SU -797-634
Meat tissue from bone separation process - 75236D/41
- MOMI 19.07.76 MORINAGA & CO LTD D13 = NL-167-839
Automatically controlling caramel degree of liquid - 08676A/05
- MOMI 27.04.78 MORINAGA & CO LTD B05 D16 E16 = J8 1039-632
Enzymatic prepn. of aldehyde from aminoacid and polyphenol - 91659B/51
- *MOMI 04.02.80 MORINAGA & CO LTD D13 *J5 6109-548
Bran-pickling compsn. prepn. - 74920D/41
- *MOMO= 14.09.78 MOSCOW MOSMYASOPROM D12 *SU -797-648
Prodn. of edible albumen from dried livestock blood - 75249D/41
- MONS 29.01.79 MONSANTO CO D25 E12 F06 #CA 1107-914
Aq. fabric bleaching compsns. - 36444C/20
- MORG 26.05.77 MORINAGA MILK KK D17 E13 = J8 1039-200
Non-hygroscopic lactulose powder prodn. - 67108A/38
- *MOSN 12.10.78 MOSCOW NAT ECONOMY INST D13 *SU -797-642
Prophylactic herb tea - 75244D/41
- *MULL/ 27.03.80 MULLER A D16 *GB 2072-657
Prodn. of hulupone(s) from lupulone(s) - 74336D/41
- *MURP/ 24.03.80 MURPHY P M C04 D15 *WP 8102-684
Appts. for sepg. solids from slurry - 695D/41
- *NADI 25.06.79 NATIONAL DISTILLERS CORP D16 *US 4291-124
Continuous fermentation of sugars to ethanol - 75639D/41

- NAKA/ 28.08.73 NAKA Y B04 D16 = J8 1039-190
 Clearing lipase with antilipemic activity - 56397W/34
 NATT 15.05.78 NAT STARCH & CHEM CORP A11 D13 F09 (A97) = GB 1599-449
 Reagent soln. for efficient, pollution-free starch phosphorylation - 67935B/37
 *NBAS= 12.01.78 N BASIN SEVTEKHRYBP D12 *SU-797-638
 Fish filleting mechanism - 75240D/41
 *NDEN 01.02.80 NISSHIN ELECTRICAL KK D16 J04 (D15) *J5 6109-585
 Crosslinking method for microbial membrane - 74925D/41
 NEST 17.03.77 MAGGI AG D13 = CA 1108-604
 Ultrafiltration of vegetable acid hydrolysate - 65264A/37
 NEST 01.11.78 SOC PROD NESTLE SA B04 D16 = J5 6109-589
 Prodn. of substance with baregine-like bacteriostatic activity - 31104C/18
 *NEUT- 01.12.80 NEUTROGENA CORP D21 E16 *US 4290-904
 Transparent, solid, low alkalinity soaps - 75551D/41
 *NEWC- 10.01.78 NEWCASTLE GATESHEAD D15 *GB 1599-675
 Flocculating tank for clarifying water - 74286D/41
 NIIG 29.06.77 NIIGATA ENG KK D12 = CA 1108-005
 Denaturing flesh of aquatic animals esp. fish - 02459B/02
 *NIOC 25.03.80 NIPPON OIL KK B02 D16 *GB 2072-670
 Coproporphyrin and uroporphyrin sepn. and recovery - 74342D/41
 NIOF 17.08.78 NIPPON OILS & FATS KK D23 E17 = J8 1039-292
 Fatty acid purificn. - 26008C/15
 *NIPK 04.02.80 NIPPON KAYAKU KK D13 *J5 6109-580
 Preventing deterioration of processed foods - 74924D/41
 NIPS 30.01.73 NIPPON SODA KK D15 E19 = J8 1039-358
 Fixing heavy metals or their cpds in aqs. wastes - 43539V/24
 NIPT 28.09.77 NIPPON TENSAI SEITO KK D17 E13 = J8 1039-640
 Sepp. raffinose from beet molasses - 41299B/22
 *NIRE- 31.01.80 NIPPON RESNUI KK D17 E13 *J5 6109-598
 Refining fructose-contg. sugar soln. - 74934D/41
 *NIRE- 31.01.80 NIPPON RENSUI KK D17 E13 *J5 6109-599
 Refining fructose-contg. sugar soln. - 74935D/41
 NIRO 15.02.80 NIRO ATOMIZER A/S D14 = FR 2477-032
 Drying powdered milk on vibrating bed - 66590D/37
 *NISB 05.02.80 JAPAN TOBACCO & SALT PUB D18 E19 (D16) *J5 6109-592
 Phytuberol prodn. - 74928D/41
 NISR 25.09.79 NISSUI PHARM KK B04 D16 = J8 1039-635
 Selective media for detection of cholera bacteria - 25684D/15
 NISS- 25.07.77 NISSHIN SEITO KK D17 = J8 1039-638
 Edible liq. sugar prepn. from molasses - 24710B/13
 NISW 25.02.77 NISSHIN OIL MILLS KK C03 D13 = J5 3115-836
 Foodstuff or feedstuff prepn. - 75022D/41
 *NISW 25.02.77 NISSHIN OIL MILLS KK C03 D13 *J8 1039-176
 Foodstuff or feedstuff prepn. - 75022D/41
 *NISW 31.01.80 NISSHIN OIL MILLS KK D21 E19 *J5 6108-739
 Oligo-esterified prods. of 12-hydroxy-stearic acid - 74716D/41
 NISY 30.06.76 NIPPON SYNTH CHEM IND A35 D15 (A14 D16) = J8 1039-877
 Microbial decomposition of PVA resin in waste water - 15115A/08
 NISY 06.07.76 NIPPON SYNTH CHEM IND A14 D16 (A35 D15) = J8 1039-878
 Digestion of polyvinyl alcohol resin(s) - 16953A/09
 *NITL 31.01.80 NITTO ELECTRIC IND KK A96 B04 D22 (B07) *J5 6108-707
 Medicinal plaster prodn. - 74699D/41
 *NOVA- 05.05.80 NORDISKA VATTENPROJ D15 *WP 8102-730
 Rotating biological contactor with body segments - 75708D/41
 NOVO 28.07.70 NOVO TERAPEUT LAB A/S D25 (D16) = NL-167-993
 Enzyme preps - 10375T/07
 NOVO 13.03.75 NOVO INDUSTRIA/S D17 E13 (D16) = SU-797-582
 Continuous isomerisation of glucose syrup - 74328X/40
 *NYUY- 18.03.80 NEW YORK UNIVERSITY D17 E13 *BR 8101-561
 Conversion of cellulose residues into glucose - D/41
 *ONoy 29.01.80 ONO PHARMACEUTICAL KK B04 D16 *J5 6106-589
 Glutathione-reductase prepn. - 74477D/41
 OREA 01.04.74 L'OREAL SA A96 D21 (A14) = IT 1051-607
 Acrylic tetra- (or higher) copolymer - 67718W/41
 OREA 30.06.75 L'OREAL SA A97 B07 D21 = J5 6108-528
 Prodn. of aq. dispersions of lipid spherules - 03895Y/03
 OREA 06.04.76 L'OREAL SA A14 D21 (A96) = CA 1108-056
 Copolymer or higher polymer of subst. (meth)acrylamide - 72452Y/41
 OREA 17.05.77 L'OREAL SA A96 D21 E17 (E16 E36) = CA 1108-055
 Lacquer compsn. for fixing hair contg. polymer and alcohol - 84066A/47
 OREA 11.07.78 L'OREAL SA D21 E14 = US 4290-974
 UV radiation-absorbing 3-para-oxy-benzylidene-2 bornanone derivs. - 07814C/05
 OREA 13.07.78 L'OREAL SA A25 B03 D21 E13 (A87 A97) = US 4290-956
 Surface active cyclic polyether derivs. - 90506C/51
 OREA 21.12.79 L'OREAL SA A96 D21 (A26) = DK 8005-419
 Cationic condensn. polymers contg. quat. nitrogen atoms - 47836D/27
 OREA 21.12.79 L'OREAL SA A96 D21 (A25) = DK 8005-420
 Quaternised polymer cosmetic agents - 47838D/27
 OREA 21.12.79 L'OREAL SA A26 D21 F06 (A96 A97 D15) = DK 8005-421
 Polycationic polymers contg. quat. nitrogen atoms - 47839D/27

- OREA 21.12.79 L'OREAL SA A26 D15 F06 (A96 A97 D22) = DK 8005-423
 Cationic quat. nitrogen-contg. condensn. polymers - 47837D/27
 *OREA 29.02.80 L'OREAL SA A96 D22 *FR 2477-010
 Sanitary towel to fit inside pair of briefs - 74248D/41
 OREA 24.03.80 L'OREAL SA A96 B05 D21 E19 = BE-888-082
 Stable oil-in-water emulsion - 72303D/40
 ORIY 19.10.73 ORIENTAL YEAST KK B04 C03 D13 (D16) = J5 0068-867
 Animal feedstuff which reduces blood cholesterol - 75020D/41
 *ORIY 19.10.73 ORIENTAL YEAST KK B04 C03 D13 (D16) *J8 1039-167
 Animal feedstuff which reduces blood cholesterol - 75020D/41
 ORTH 09.10.79 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8003-948
 Mono:clonal antibody from hybridoma ATCC CRL 8016 - 23876D/14
 *OSAG 02.02.80 OSAKA GAS KK A91 D15 J04 *J5 6108-954
 Analysis of ion conc. in water by ion exchange chromatography - 74786D/41
 *OTTO- 23.05.80 OTTOPRAN SRL D11 *BE-888-939
 Machine for mixing and extruding edible paste for bakery etc. - 73745D/41
 PASE 12.10.71 PASSAVANT-WERKE D15 = US 4290-898
 Effluent treatment - 15497U/11
 *PASE 26.03.80 PASSAVANT-WERKE AG D15 *EP-36-664
 Raking device for settling basins - 74132D/41
 PATE- 03.02.77 PATENT TECH INC D13 = CA 1108-002
 Edible coating for ice cream white hardens to a shell - 43990A/24
 *PENN 17.03.80 PENNWALT CORP D21 E33 *WP 8102-670
 Dentifrice compsns. contg. abrasive - 75687D/41
 PENT- 08.10.79 PENTAPHARM AG B04 D21 (D22) = EP-36-415
 Freeze dried collagen prod. for medical or cosmetic use - 32557D/18
 *PERE/ 19.03.80 PEREIRA R N D16 *BR 8001-646
 Small alcohol disin. plants - D/41
 PERM- 22.09.78 PERMELEC ELECTRODE D15 E36 J03 X25 = J8 1039-716
 Electrode for metal halide soln. electrolysis - 23987C/14
 PFIZ 12.07.72 PFIZER INC A97 B04 D16 = NL-167-996
 Immobilised enzymes prodn. - 08629V/05
 PFIZ 21.01.80 PFIZER INC B05 D16 E16 = J5 6106-596
 2-Keto-L-gulonic acid prodn. - 07732D/05
 *PFIZ 24.03.80 PFIZER INC D16 *EP-36-737
 Extracting lactase from yeast cells - 74174D/41
 PHAR- 29.09.76 PHARMACO INC A88 B07 D16 J01 (A96 D15) = CA 1108-361
 Microporous ultrafiltration membranes - 25705A/14
 PHAR- 16.06.78 PHARES PHARM RES NV B07 D21 = US 4291-062
 Topical or rectal compsns. contg. medicament - 03897C/03
 *PHOT- 24.03.80 PHOTOCHÉMIE AG A92 D15 M25 *EP-36-640
 Electrolysis cell for reclaiming metals from aq. liquids - 74118D/41
 *PIRS 19.05.65 PIREAR SA A96 D21 E36 *IT 1051-551
 Talc contg. soft silicone gel - D/41
 PLAC 26.03.80 MAX PLANCK GES WISSENSCH B04 D13 E11 F06 (D18 D21) = DE 3011-738
 1-O-Acyl-glycerol-3-phosphoric acid haloalkyl ester(s) - 74091D/41
 *PLAC 26.03.80 MAX PLANCK GES WISSENSCH B04 D13 E11 F06 (D18 D21) *EP-36-583
 1-O-Acyl-glycerol-3-phosphoric acid haloalkyl ester(s) - 74091D/41
 *POGO/ 28.04.79 POGODINA A A D14 *SU-797-758
 Continuous hydrolyser for vegetable stock - 75308D/41
 *POME= 23.03.79 POLT MEAT EQUIP WKS D12 *SU-797-633
 Pork carcass singeing furnace - 75235D/41
 *PREP 29.04.65 PREPHAR PROSPN RES SA B05 D21 *IT 1051-725
 Baldness curing compsn. - D/41
 PROC 31.07.70 PROCTER & GAMBLE CO D24 (D25) = NL-167-992
 Multilevel spray - drying tower - 07528T/05
 PROC 27.12.74 PROCTER & GAMBLE CO D22 = IT 1051-960
 Mfg. tampons for feminine hygiene - 83610X/45
 PROC 15.05.78 PROCTER & GAMBLE CO D25 E17 = GB 1599-560
 Laundering of fabrics - 13512D/08
 PROC 20.06.78 PROCTER & GAMBLE CO A97 D25 E11 F06 = US 4291-071
 Textile softening and detergent compsn. - 02033C/02
 PROC 26.06.78 PROCTER & GAMBLE CO A97 D25 = US 4290-903
 Particulate detergent additive - 03862C/03
 PROG- 20.01.76 PROGRESSIVE EQUIP D15 X25 = CA 1108-555
 Electrostatic water treatment appts. - 37929Y/21
 *PROT= 22.04.76 PROTEIN BIOSYNTH D16 J01 *SU-797-715
 Microbiological solids-liquids system counterflow continuous extn. - 75269D/41
 PRUN/ 18.07.73 PRUNAT D15 = IT 1051-734
 Purification of water from olive oil sediment - W/14
 PRUN/ 23.12.75 PRUNAT D23 = IT 1051-919
 Recovery of oily paste - Y/49
 PURE- 24.01.77 PURE CYCLE CORP D15 = GB 1599-706
 Closed circle domestic waste water recycling - 55424A/31
 *PURX 06.10.77 PUREX CORP LTD A97 D25 F06 *US 4291-072
 Air-permeable fabric conditioner sheet for laundry dryer - 75616D/41
 *QPPP 05.02.80 Q.P. CORP D13 *J5 6109-545
 Sterilised conc. liq. egg white prodn. - 74919D/41

- RAKH/ 15.07.76 RAKHIMOV R R D15 E36 *SU -798-050
Removing hypochlorite from industrial waste - 75408D/41
- REFU- 24.12.75 REFUSE DERIVED FUEL D16 H09 L02 (D15) = CA 1108-403
Fuels made from organic solid wastes - 30996Y/18
- RETR- 20.03.80 RES TRIANGLE INST B05 C03 D13 S03 (B04) *WP 8102-792
Detecting lactam type antibiotics in milk - 75727D/41
- RHEE 03.07.78 RHEEM MFG CO D12 = CA 1108-101
Device for feeding ribbon of sausage clip loops - 02227C/02
- RHOD/ 12.10.78 RHODES D D16 *CA 1107-980
Anaerobic digester with removable panels - 73765D/41
- RHON 26.12.74 RHONE-POULENC INDUSTRIES A26 D15 J01 (A88) = IT 1051-997
Sulphonated polyarylether sulphones contg. sulphonic acid - 52101X/28
- RHON 04.08.77 RHONE-POULENC INDUSTRIES B02 C02 D13 = CA 1108-610
Antibiotic 35665 RP useful as animal growth promoter - 09974B/06
- RHON 29.09.78 RHONE-POULENC INDUSTRIES D13 E36 = DS 2939-200
Sulphate-free phosphoric acid prodn. of food use - 25701C/15
- RHON 21.12.79 RHONE-POULENC INDUSTRIES D12 = DK 8005-430
Food prods. produced from extruded protein fibres - 47840D/27
- *RICH 12.03.79 RICHARDSON-MERRELL INC B02 C02 D22 *US 4291-160
7-Dithiolane-imino -3-substd.-methyl- 2-cephem derivs. - 75652D/41
- RICT 21.03.79 RICHTER GEDEON VEGY D12 (D15) = DD -149-469
Removal of solids from waste liquids e.g. from slaughter houses - 72785C/41
- RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 = DD -149-566
Heating or cooling plant for wet solids partic. pulpy materials - 71596C/41
- RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 = DD -149-567
Dryer-granulator for heat-sensitive organic materials e.g. biological - 71595C/41
- RIED 25.03.80 RIEDEL DE HAEN AG A91 D15 J01 M25 = DE 3011-393
Ion-exchanger with polymer matrix - 74092D/41
- *RIED 25.03.80 RIEDEL DE HAEN AG A91 D15 J01 M25 *EP --36-584
Ion-exchanger with polymer matrix - 74092D/41
- *RIKA 31.01.80 RIKAGAKU KENKYUSHO B04 D16 *J5 6108-719
Antibiotic antlermycin B and C - 74704D/41
- *RILE/ 19.03.80 RILEY C M C D15 *BR 8001-628
Vinasses and sewage sludge treatment for energy generation - D/41
- RIZZ- 18.06.74 RIZZIL SPA D18 = IT 1051-951
Yielding hide support attachment - 14728W/09
- RIZZ- 02.12.75 RIZZIL SPA D18 = IT 1051-672
Hide drying machine belt centralisation - 20325Y/12
- ROHG 11.02.77 ROHM GMBH D21 = CA 1108-542
Water soluble keratin hydrolysate prodn. - 60607A/34
- ROHM 09.07.69 ROHM & HAAS CO D15 = NL -167-938
Low silica deionized water - 05553S/03
- *RORE= 15.03.79 ROST REFRIG I ROSMY D13 *SU -797-646
High food value ice cream - 75247D/41
- ROUR 01.09.71 ROURE BERTRAND DUPO D23 E15 = J5 6108-706
2-n-pentyl-3-(2-oxopropyl)-1-cyclopentanone useful as perfume - 16367U/12
- RYOS- 29.01.80 RYOSHOKU KENKYU-KAI A97 D12 = J5 6106-559
Sepn. of globin from animal blood for use as food protein - 58791D/33
- *SANW 30.01.80 SANWA KAGAKU KENKYUSHO B04 D16 *J5 6108-716
Antiviral compsn. for liq. preparations - 74702D/41
- SANY 29.09.76 SANKYOKK A97 D13 G02 (A11 A14) = J8 1039-793
Viscosity improving agent used as food additive, paint or dye - 38993A/22
- SAOC 16.12.74 SANRAKU OCEAN B02 D16 = J8 1039-189
Purine nucleoside-5-phosphate-2 or 3 -mono or di-phosphates - 69160W/42
- *SARS 15.02.80 SARTORIUS GMBH B04 D16 *DE 3005-605
Antigen extrn. from cell suspension - 73848D/41
- *SAVI/ 10.01.79 SAVIN A N D15 *SU -798-048
Liquid effluent cleaner - 75406D/41
- SCAD 21.12.76 SCA DEVELOPMENT AB A11 D22 F04 (A96) = CA 1108-364
Cellulosic material for absorbent sanitary prods. - 46196A/26
- SCHD 19.12.77 SCHERING AG B01 D16 = EP G002-535
21-Hydroxy-20-methyl-pregnane derivs. prodn. - 47378B/26
- SCHD 27.03.80 SCHERING AG B04 D16 = DE 3012-169
Protein prepn. by selective enzymatic cleavage - 90721C/51
- SCHD 27.03.80 SCHERING AG B04 D16 = DE 3012-170
Protein prepn. by selective enzymatic cleavage - 90721C/51
- *SCHE- 21.03.80 SCHEUCH FOLIEN PAPI D13 *EP --36-655
Vacuum coffee pack - 74128D/41
- SCHR- 16.04.79 SCHREIBER LD CHEES D13 = US 4291-064
Appts. for producing large cheese blocks - 83190C/47
- SCHR- 24.03.80 SCHREIBER-KLARANLAG D15 X25 = BE -888-077
Purificn. of activated sludge waste water mixt. - 72333D/40
- SCHR- 24.03.80 SCHREIBER-KLARANLAG D15 X25 = DE 3011-247
Purificn. of activated sludge waste water mixt. - 72333D/40
- SEAR/ 13.11.79 SEARS B D B05 D13 E11 = US RE30-748
Phosphatide onium cpds. - 31504A/17
- *SHIM/ 01.02.80 SHIMIZU S B04 D16 *J5 6109-597
Detecting enzymatic reactions using luciferin analogue - 74933D/41
- *SHIN/ 30.01.80 SHINOZAKI M D22 J01 *J5 6108-531
Gas-deodorising compsn. prodn. - 74683D/41
- SHIO 07.03.78 SHIONOGI KK B02 D16 = CA 1108-075
Antibacterial antibiotic cephamycin C microbiological prodn. - 68393B/38
- *SHIO 23.01.80 SHIONOGI KK D16 *J5 6106-590
Galactose-oxidase fermentative prodn. - 74478D/41
- SHIS 26.08.77 SHISEIDO KK A96 D21 (A18) = CA 1108-538
Make/up compsn. for use around eyes - 18297B/10
- *SHIS 29.01.80 SHISEIDO KK D21 *J5 6108-703
Mfg. powder-type cosmetic material - 74697D/41
- *SHIV 28.01.80 NEW JAPAN CHEM A97 D25 *J5 6107-072
Softening agent for washing - 74618D/41
- *SMAC= 14.03.78 SMACH CONS WKS D11 *SU -797-630
Stuffed dough item shaping mechanism - 75233D/41
- SMIN 03.12.76 SMITH & NEPHEW LTD A96 D22 L02 (A93) = GB 1599-753
Poly:carboxylate based cement contg. water soluble glass - 27008A/15
- SMIN 03.06.77 SMITH & NEPHEW LTD A96 D22 L02 (A93) = GB 1599-754
Poly:carboxylate based cement contg. water soluble glass - 27008A/15
- SNAM 23.12.76 SNAMPROGETTI SPA C03 D16 H04 (D13) = CS 7708-778
Methanol-utilising Candida strain - 45864A/26
- SNAM 05.07.77 SNAMPROGETTI SPA D17 E13 (D16) = US 4291-123
Fructose prepn. from glucose solns. - 01939B/02
- SNAM 05.10.77 SNAMPROGETTI SPA C03 D16 (D13) = CA 1108-073
Novel strain of Candida valida yeast - 27860B/15
- SNAM 12.05.78 SNAMPROGETTI SPA A96 B04 D16 = CS 7903-256
Reduction of phenylalanine levels in blood and other media - 82559B/46
- *SNKM 31.01.80 SANKIN KOGYO KK D21 M26 *J5 6108-849
Nickel alloy for dental use - 74764D/41
- SNOW 09.12.77 SNOW BRAND MILK PRODUCTS D13 = J8 1039-622
Powdery bean milk prepn. - 58801B/32
- *SNOW 25.03.80 SNOW BRAND MILK PRODUCTS D14 *WP 8102-689
Pulverising and discharge means for dried milk or fruit juice powder - 75700D/41
- *SOYU= 26.02.79 SOYUZVODOKANALPROEK D15 *SU -798-046
Settler for removing solids from aq. waste - 75404D/41
- SPOF 29.12.74 SPOFA SPOJENE FARM NP A97 D16 = IT 1051-967
Germination of micro-organisms on pref plastic fibre base - 40018X/22
- *SSCM- 29.02.80 SSCM SOC STEPHANOIS D16 *FR 2476-969
Digester plant to generate methane from liq. manure - 74241D/41
- SSSE 31.01.80 SS PHARMACEUTICAL KK B04 D16 = J5 6108-720
Anti-haemolytic substance M-9337 - 60771D/34
- *STAD 22.08.79 STANDARD OIL CO (IND) D13 (D16) *US 4291-063
Improving the texture of spray-dried yeasts - 75613D/41
- STAH/ 22.05.78 STAHLER T D15 = EP G005-553
Aerobic sewage treatment - 86284B/48
- STAU 21.01.80 STAUFFER CHEMICAL CO D13 = J5 6106-574
Substitute for non-heat-set egg yolk in food prods. - 57290D/32
- STEP- 05.10.78 STEPHAN A & SOHNE D11 = EP G009-666
Dough mixing and kneading tool - 27621C/16
- STER 05.06.78 STERLING DRUG INC B05 C01 D22 = CA 1108-176
Aryl and aryloxy-alkyl di:alkyl phosphonate(s) - 87592B/49
- STOP- 24.02.76 STOPPANI SA D15 E34 M25 = SU -797-553
Detoxication of residue obtd. in working chrome ores - 61449Y/35
- SUGI/ 24.02.79 SUGIURA E D15 = US 4290-979
Aeration system for effluent treatment plants - 64456C/37
- SUMO 01.06.78 SUMITOMO CHEMICAL KK D22 E14 = J8 1039-312
1-Tri:aryl:methyl:imidazole prepn. - 06566C/04
- SURG- 03.03.76 SURGIKOS INC D22 = CA 1108-025
T-Shaped cardiovascular surgical drape with 2 fenestrations - 43109Y/24
- SVRA- 15.04.77 SVENSKA RAYON AB D15 J01 = CA 1108-320
Liq. extrn. process - 79387A/44
- TAKA- 20.05.78 TAKADA SHOTEN KK D13 = J8 1039-623
Meat seasoning and preserving agent - 04483C/03
- *TAKA- 04.03.80 TAKARA SHUZO CO D16 J04 *DE 3039-874
Multistage continuous reactor - 74018D/41
- TAKE 10.06.74 TAKEDA CHEMICAL IND KK B05 D16 E17 = J8 1039-194
Fermentative prodn. of D-iso:citric acid - 22370A/12
- TAKE 31.03.77 TAKEDA CHEMICAL IND KK B02 C02 D16 = CS 7706-678
Antibiotic complex C-15003 prepd. from Nocardia species - 72710A/41
- *TAKS 29.01.80 TAKASAGO PERFUMERY KK D23 E14 *J5 6108-705
Perfume compsn. contg. beta-ison:proxy:ethyl salicylate - 74698D/41
- TAMA 18.12.79 TAMPELLA ABOY 7 = DK 8005-348
Continuous saccharification of plant material to obtain sugars - 59094D/33
- TANA 08.09.78 TANABE SEIYAKU KK D13 = US 4290-910
Stable intravenous nutrition fatty emulsions - 22343C/13
- *TANB 04.02.80 TOKYO TANABE KK D17 *J5 6109-600
Amylodextrin fine granules mfr. - 74936D/41

- TATL 07.11.79 TATE & LYLE LTD B03 D13 E13 (B07) = DK 8004-761
Tablets contg. iso: maltulose as diluent - 38551D/22
- TATL 18.12.79 TATE & LYLE PATENT B03 D13 E13 = DK 8005-378
Crystalline tri:chloro-tri:deoxy-galacto-sucrose - 48097D/27
- TATL 20.12.79 TATE & LYLE PATENT A11 D16 F06 G02 = DK 8005-458
Xanthan gum of low intrinsic viscosity - 55427D/31
- TATL 20.12.79 TATE & LYLE PATENT B03 D13 E13 = DK 8005-460
Tri:chloro-tri:deoxy-galacto:sucrose prodn. - 48270D/27
- TATL 01.05.80 TATE & LYLE PATENT D25 E13 = DK 8003-708
Prodn. of sucrose ester surfactants - 48265D/27
- *TBIL= 08.04.76 TBILISI VENDING MAC D13 *SU -797-640
Green tea leaf curing plant - 75242D/41
- *TEAI= 22.06.78 TEA IND RES-MFG COMBINE D13 *SU -797-641
Black tea producing process - 75243D/41
- *TEAI= 27.11.78 TEA IND RES INST D13 *SU -797-644
Leaf stalk and tea leaf separating mechanism - 75245D/41
- TEIJ 26.05.77 TEIJIN KK A97 B04 D16 = J8 1039-192
High purity urokinase prepn. - 09076B/05
- *TEIJ 04.02.80 TEIJIN KK A88 D15 J01 (A11) *J5 6108-504
Cellulose ester reverse osmosis membrane prodn. - 74670D/41
- *TEIJ 04.02.80 TEIJIN KK A88 D15 J01 (A11) *J5 6108-505
Reverse osmosis membrane comprising cellulose ester mfr. - 74671D/41
- THOM 29.02.80 THOMAE K GMBH B02 C02 D22 E13 (D13) = DE 3007-685
2-Thiazolyl-2-pyrimidinyl:ureido-acetamido cephalosporin derivs. - 68211D/38
- TILG/ 14.03.80 TILGNER H G D16 = WP 8102-745
Prodn. of fermented drinks with reduced alcohol content - 72108D/40
- *TOAG 29.01.80 TOA GOSHI CHEM IND LTD D13 *J5 6106-580
Stabilising agent for fruit and vegetables - 74474D/41
- *TOKR- 04.03.80 TOKYO RIKAKIKAI CO D16 J04 *DE 3039-874
Multistage continuous reactor - 74018D/41
- *TOKU 04.02.80 TOKUYAMA SODA KK D17 (D16) *J5 6109-593
Microbial prepn. of polysaccharide - 74929D/41
- *TORB/ 24.03.80 TORBERGER F D15 *WP 8102-729
Desalination by sepg. water vapour from liq. - 75707D/41
- TOXN 10.05.78 TOYO JOZO KK B04 D16 = US 4291-021
Macrolide antibiotics with antibacterial and anti:mycoplasma activity - 84686B/47
- *TOXO 21.01.80 TOYO SEIKAN KAISHA A92 D14 *J5 6106-753
Extruded tube package for retort sterilisation - 74485D/41
- TRIB/ 04.02.80 TRIBBLE T B C03 D13 E17 (D22) = J5 6109-557
Animal feed preservative contg. pyrolygneous acid - 59152D/33
- *UEDA- 24.01.80 UEDA KAGAKU KOG KK B04 D16 *J5 6106-592
Refining vegetable beta-amylase - 74479D/41
- *UFAP 23.01.79 UFA PETROLEUM INST D22 E12 H01 *SU -798-049
Flooded oil strata sulphate reducing bacteria growth suppression - 75407D/41
- UNIC 26.03.80 UNION CARBIDE CORP D15 = DE 3013-506
Control of sludge temp. in auto-thermal sludge digestion - 53318D/29
- UNIC 26.03.80 UNION CARBIDE CORP D15 = GB 2072-646
Control of sludge temp. in auto-thermal sludge digestion - 53318D/29
- UNIL 07.07.69 UNILEVER NV D14 = IT 1051-601
Sterilising packaging containers - 04160S/02
- UNIL 29.09.70 UNILEVER NV D25 F06 = NL -167-991
Softening cotton fabrics - 22686T/14
- UNIL 30.04.71 UNILEVER NV D25 E17 = J5 6107-000
Builders for washing agents - 74794T/47
- UNIL 22.11.72 UNILEVER NV D13 = NL -167-841
Cheese flavour compsn - 42065V/23
- UNIL 23.12.74 UNILEVER NV D13 F01 (D12) = IT 1051-643
Spinning protein fibres for food prodn. - 52565X/28
- UNIL 18.03.77 UNILEVER LTD D25 E19 (D22) = CA 1108-029
Germicidal cleansers, e.g. for dishes - 69248A/39
- UNIL 17.11.78 UNILEVER PLC A92 D25 = EP G011-500
Closed water insoluble bag contg. particulate detergent compsn. - 38733C/22
- *UNIL 11.03.80 UNILEVER PLC D25 *EP --36-720
Particles of perfume and cationic matrix - 74168D/41
- *UNIL 21.03.80 UNILEVER NV D25 E16 (E24) *EP --36-691
Bleaching detergent compsn. - 74150D/41
- UNVO 08.03.77 UOP INC C04 D15 = GB 1599-568
Drying and extrusion of organic waste to form e.g. fertiliser - 66696A/37
- UPJO 17.10.77 UPJOHN CO B04 C03 D16 H07 = SU -797-591
Antibiotic CC-1065 - 31828B/17
- UPJO 05.02.80 UPJOHN CO D16 = J5 6109-588
Expression of gene coding by fusing gene - 60946D/34
- *USDA 02.02.79 US SEC OF AGRICULTURE B05 C03 D21 F06 (D22) *US 4291-041
Insect repellent contg. (2,2,1)hept-5-en-2-yl carboxamide(s) - 75604D/41
- *USSH 16.05.80 US SEC OF HEALTH B04 D16 *US 4291-020
Inactivation of non-A, non-B hepatitis virus agent with formalin - 75597D/41
- *UVER- 27.03.80 UNIV GES ERRICHTUNG D15 J01 (D18) *DE 3011-844
Sepn. of soluble substances from carrier liquids - 73994D/41
- UVER- 27.03.80 UNIV ERRICHTUNG UMW D15 J01 (D18) = GB 2072-650
Sepn. of soluble substances from carrier liquids - 73994D/41
- UYDE- 16.04.75 UNIV OF DELAWARE A11 D22 F01 (A94) = CA 1108-366
Re-natured chitin articles, e.g. films, fibres or tubes - 83512X/45
- *UYKI= 19.06.78 KISH UNIV D13 *SU -797-647
Confectionery fruit jelly prodn. - 75248D/41
- UYRO- 07.01.80 UNIV OF ROCHESTER B04 D16 = DK 8100-037
Recombination bacteriophage for heterologous cloning of DNA - 55411D/31
- *UYST- 26.03.77 UNIV OF STRATHCLYDE C04 D15 E17 (C03) *GB 1599-760
Anaerobic microbial conversion of organic matter to methane and liq - 74288D/41
- UYWA- 30.01.79 UNIV WATERLOO C03 D13 = CS 8000-605
Proteinaceous feed materials prodn. for animals - 64805C/37
- *VACC/ 17.06.61 VACCARINO C D23 *IT 1051-701
Fatty oils treatment - D/41
- *VACC/ 18.01.64 VACCARINO C D23 *IT 1051-715
Fatty oils treatment - D/41
- *VBUE/ 25.03.80 VAN BUUREN C D21 E33 *EP --36-698
Eye make-up compsns. - 74153D/41
- *VELW 25.03.80 VEB LEUNA-WERK W ULBRICH D25 E17 *DD -149-513
Washing active alkyl sulphonate cpds. prodn. - 73809D/41
- VENT- 22.11.77 VENTURATOR LTD D15 J02 = GB 1599-647
Submerged gas injector to aerate waste water etc. - 47752A/27
- *VILJ/ 20.03.80 VILJANMAA A K D18 *WP 8102-746
Loading hide stretching frames into drying tunnel - 75718D/41
- VYSO 29.12.79 VYSOKA SKOLA CHEM A97 D25 = DE 3049-284
Prepn. of washing powder contg. immobilised perfume - 32630D/19
- *WAKD 30.01.80 WAKODO KK A11 D13 *J5 6106-560
Conjugated protein prodn. - 74471D/41
- *WAKD 01.02.80 WAKODO KK D13 *J5 6109-549
Bean curd milk protein mfr. - 74921D/41
- *WAKP 25.01.80 WAKO PURE CHEM IND KK B04 D16 *J5 6106-600
Determin. of hydrogen peroxide - 74483D/41
- WALK- 29.11.77 WALKER H & SONS INC D16 = CA 1108-077
glucoamylase and alpha amylase system prodn. - 70389B/39
- WARN 14.01.74 WARNER-LAMBERT CO D13 = J8 1039-853
Chewing gum piece contg. liquid fill in an enclosed cavity - 49318W/29
- *WASS/ 24.03.80 WASSILJEV M D18 *DD -149-545
Soft pliable chromium leather prepn. from piglet hide - 73834D/41
- *WEAV/ 22.01.79 WEAVER R L D15 E36 J03 X25 *US 4290-873
Electrolytic generator for chlorine gas mfr. - 75533D/41
- *WELR 28.03.80 WELKER P AG D11 *GB 2072-479
Automatic final baking oven with pivoting gondola(s) - 74295D/41
- WILK/ 01.02.77 WILKE G D11 = CA 1108-013
(Flaky) pastry prodn. without a baking stage - 57016A/32
- WURT- 26.03.80 WURTEMBERGISCHE PA D21 = DE 3011-618
High-foaming tooth-paste esp. with optical cleaning control - 74033D/4
- *WURT- 26.03.80 WURTEMBERG PARFUM D21 *EP --36-439
High-foaming tooth-paste esp. with optical cleaning control - 74033D/4
- YEDA 21.11.79 YEDA RES & DEV CO LTD B04 D16 = DE 3043-981
Highly purified human interferon prepn. - 42601D/24
- YOSH- 14.01.77 YOSHIKAWA SHOJI KK D13 E33 (E12) = J5 3096-344
Coagulation of soybean juice - 75023D/41
- *YOSH- 14.01.77 YOSHIKAWA SHOJI KK D13 E33 (E12) *J8 1039-177
Coagulation of soybean juice - 75023D/41
- *ZAVO/ 04.06.79 ZAVODSKY L D17 *CS 7903-841
Saccharose extraction from vegetable material - D/41
- ZLLI- 11.04.79 Z-L LTD PARTNERSHIP D13 E13 = DK 8005-288
Iso:flavanone and iso:flavan cpds. - 76988C/43

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CA -882-960 S42			ZA 7004-582 T09			US 4142-970 B11			49607-V ADE			AT 7700-657 A26			IT 1025-319 A42			IT 1051-866 D41			FR 2302-029 Y01		
GB 1318-996 U22			US 3795-483 V11			US 4290-898 D41			NL 7317-196 V27			CS 7608-285 B06			CS 7507-302 B06			IT 1051-867 D41			DK 7505-565 X47		
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IT 1051-601 D41			05553-S D			BE -770-235 T05+			NL 7211-709 U12			J4 9089-705 V44			SU -648-085 B45			BE -837-087 X28			03895-Y ABD		
DE 2031-513 S05			FR 2051-632 S27			DE 2036-525 T07			BE -788-300 U12			US 3846-554 V46			SE 7907-995 C02			NL 7515-004 X29			BE -843-300 Y03		
J7 1026-965 S31			CA -911-626 T42			NL 7110-097 T07			DE 2242-463 U13			DS 2362-268 W51			CA 1092-146 D05			DE 2558-391 X29			NL 7607-210 Y03		
CH -529-070 T50			GB 1321-058 U25			FR 2104-790 T24			FR 2099-336 T25			CA -983-803 X10			NL 8101-011 D29			J5 1090-397 X38			DE 2629-100 Y04		
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NL -167-938 D41			08123-S DH			US 3686-117 T36			GB 1401-950 W32			J7 6039-965 X48			NL -167-953 D41			FR 2295-979 X45			DK 7602-913 Y12		
BE -753-754 S04			NL 7010-337 S38			DE 2112-176 T43			CH -566-136 W43			NL -167-990 D41			38121-X AD			GB 1484-828 Y36			FR 2315-991 Y15		
NL 7010-337 S38			DE 2038-700 S39			GB 1295-386 T45			CH -567-448 W46			40018-X AD			US 4054-707 Y43			BR 7604-270 Y16			BR 7604-270 Y16		
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CA -925-037 U19			US 3764-474 U42			DS 2036-525 V26			DS 2242-463 X18			NL 7514-946 X29			CH -599-267 A24			CA 1063-908 B43			DS 2629-100 B49		
SU -357-749 V06			J7 4037-273 V44			CA -963-462 W11+			J5 2046-050 Y21			FR 2295-708 X45			IT 1051-944 D41			CH -616-087 C16			AT 7604-703 C41		
J7 4037-273 V44			DS 2038-700 Y24			NL -145-768 W26+			CA 1021-800 Y50			IT 1051-944 D41			52565-X DF			DE 2557-827 X28			J5 6108-528 D41		
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ZA 7005-481 S22			DE 1940-816 S24			10375-T D			43223-U D			DE 2453-111 W21			CH -595-446 A12			CA 1074-067 C16			IT 1051-643 D41		
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GB 1276-230 T22			CH -534-357 U22			J4 7003-735 T10			NL 7301-195 U33			GB 1465-307 Y08			52580-X CDE			DE 2558-181 X28			US 4173-904 B47		
CH -534-357 U22			US 3778-350 U51			FR 2099-349 T25			BE -794-461 U33			J8 1039-191 D41			DE 2551-742 X23			BE -837-038 X28			GB 1561-354 C08		
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J7 9004-280 B13			NL -168-049 D41			CH -556-386 V52			US 3802-441 V16			US 3894-154 W29			NL 7513-433 X23			ZA 7507-978 Y04			CS 7605-655 C18		
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BE -756-456 S13			CH -509-955 S37			NL -167-993 D41			GB 1293-477 T42			GB 1469-031 Y13			FI 7503-247 X35			IT 1051-851 D41			20394-Y ACDE		
CH -509-955 S37			FR 2064-534 S41			14427-T D			FR 2118-062 T46			CA 1040-477 A44			J5 1082-783 X36			BE -837-204 X29			DE 2640-269 Y12		
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33923-S D			FR 2046-854 S20			FR 2118-062 T46			BE -773-280 T14			DE 2513-807 W41			FI 7801-061 A34			IT 1051-957 D41			J5 2026-509 Y15		
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CH -507-876 S51			IT 1051-554 D41			CA -961-692 W07			NL 7113-227 T16			NL 7503-766 W42			J5 5148-086 D04			IT 1051-957 D41			J8 1039-799 D41		
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J7 3037-019 U45			IT 1051-558 D41			DE 2220-295 C45			J4 9055-892 V31+			FR 2274-312 X14+			DE 2556-701 X29			DS 2558-547 C14			IT 1051-993 D41		
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54772-S BCD			DE 2105-174 S34			DE 2220-295 C45			GB 1411-386 W43			J5 0126-883 Y44			J5 1086-186 X37			55106-X D			BE -849-485 Y17		
DE 2105-174 S34			BE -762-887 S34			DE 2220-295 C45			US 3925-157 W52+			J5 0126-883 Y44			J5 1086-186 X37			J5 1063-994 X29			DE 2656-846 Y27		
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NL 7101-930 S35			J4 6001-776 S40			DE 2220-295 C45			GB 1442-613 X29+			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			NO 7604-266 Y31		
J4 6001-776 S40			ZA 7100-791 T02			DE 2220-295 C45			US 4061-867 Y50+			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			FR 2335-161 Y42		
ZA 7100-791 T02			FR 2079-420 T06			DE 2220-295 C45			CA 1025-382 A07+			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			CH -608-696 B09		
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CA -904-870 T30			DD --92-345 T46			DE 2220-295 C45			DE 2366-179 A30+			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			30996-Y DHL		
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GB 1324-296 U30			US 3813-399 V23			DE 2220-295 C45			42065-V D			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			DE 2658-778 Y29		
US 3813-399 V23			US 3873-703 W14			DE 2220-295 C45			DE 2358-087 V23			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			PT --66-010 Y49		
US 3873-703 W14			SU -437-263 W47			DE 2220-295 C45			BE -807-686 V23			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			ZA 7607-653 A04		
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J7 8035-129 A42			DS 2105-174 C14			DE 2220-295 C45			J4 9133-551 W08			J5 0126-883 Y44			J5 1086-186 X37			J8 1039-186 D41			BR 7608-675 A05		
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	PT -72-216 D32	DE 3047-520 D36	DK 8005-460 D41	60946-D D	72333-D D	73953-D BD	74153-D D
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	FR 2471-780 D33		50256-D CD	FR 2476-126 D39	BE -888-077 D41		74154-D AD
	GB 2068-224 D33	47836-D AD	GB 2066-231 D28+	J5 6109-588 D41	DE 3011-247 D41	73955-D DE	EP -36-693
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	J5 6097-216 D38	GB 2065-472 D27	NL 7909-266 D32+	73736-D DJ	73742-D D		74168-D D
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		NL 8006-921 D32	J5 6091-896 D37+			DE 3011-574 D41	BR 8101-351
		FR 2471-776 D33	FR 2474-901 D37+	73745-D D		73985-D D	
		J5 6092-806 D37	DK 8000-026 D41+	BE -888-939 D41+	73993-D DE	DE 3011-807 D41	74174-D D
		DE 3048-075 D37			DE 3011-834 D41		EP -36-731
		DK 8005-419 D41	51687-D D	62820-D D			74175-D D
			BE -887-749 D29	GB 2069-306 D35+	73994-D DJ	DE 3011-844 D41	EP -36-741
		47837-D ADF	GB 2070-956 D38	FR 2476-291 D41	DE 3011-844 D41		
		BE -886-780 D27	FR 2477-028 D41	SE 8101-048 D41	GB 2072-650 D41		
		GB 2066-830 D29					
		BR 8008-412 D32					
		NL 8006-920 D32					
		FR 2471-996 D33					
		DE 3048-076 D37					
		J5 6098-233 D38					

6-D BD 36-776 D41	74474-D D J5 6106-580 D41	74919-D D J5 6109-545 D41	75236-D D SU -797-634 D41	75444-D D US 4290-379 D41	75708-D D WP 8102-730 D41
5-D DJ 36-793 D41	74475-D D J5 6106-585 D41	74920-D D J5 6109-548 D41	75237-D D SU -797-635 D41	75533-D DEJ US 4290-873 D41 +	75709-D D WP 8102-731 D41
10-D D 36-833 D41	74476-D D J5 6106-588 D41	74921-D D J5 6109-549 D41	75238-D D SU -797-636 D41	75539-D D US 4290-884 D41 +	75718-D D WP 8102-746 D41
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66-D D 2477-177 D41 +	74482-D BDE J5 6106-598 D41	74926-D BD J5 6109-587 D41	75243-D D SU -797-641 D41	75551-D DE US 4290-904 D41	
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295-D D GB 2072-479 D41	74670-D ADJ J5 6108-504 D41	74934-D DE J5 6109-598 D41	75249-D D SU -797-648 D41	75597-D BD US 4291-020 D41	
296-D D GB 2072-480 D41 +	74671-D ADJ J5 6108-505 D41	74935-D DE J5 6109-599 D41	75250-D D SU -797-649 D41	75599-D DE US 4291-025 D41	
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330-D DE GB 2072-643 D41 +	74699-D ABD J5 6108-707 D41	75022-D CD J8 1039-176 D41 J5 3115-836 D41	75394-D D SU -798-036 D41	75616-D ADF US 4291-072 D41 +	
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341-D CDEF GB 2072-669 D41 +	74705-D BDE J5 6108-721 D41	75104-D CD SU -796-237 D41	75409-D D SU -798-051 D41	75652-D BCD US 4291-160 D41 +	
342-D BD GB 2072-670 D41	74716-D DE J5 6108-739 D41	75107-D D SU -796-240 D41	75410-D D SU -798-052 D41	75685-D D WP 8102-660 D41 + PT --70-925 C41	
345-D BDE GB 2072-679 D41 +	74722-D DEK J5 6108-747 D41	75232-D D SU -797-629 D41	75414-D AD SU -798-086 D41	75686-D D WP 8102-661 D41	
441-D DJ J5 6106-148 D41	74764-D DM J5 6108-849 D41	75233-D D SU -797-630 D41	75428-D D US 4290-201 D41	75687-D DE WP 8102-670 D41	
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4472-D AD J5 6106-563 D41	74786-D ADJ J5 6108-954 D41	75235-D D SU -797-633 D41	75443-D D US 4290-350 D41	75700-D D WP 8102-689 D41	
4473-D D J5 6106-578 D41	74871-D AD J5 6109-300 D41			75707-D D WP 8102-729 D41	

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BR 8001

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 * 646 D D16
 * 707 D D16

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 = 355 74168D D25
 * 561 D D17E13
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 = 361 25705A A88B07D16J01 + P3
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 = 366 83512X A11D22F01 + P4
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* 845 D D15F01

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 * 513 73809D D25E17
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DE 3015

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DE 3043

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DE 3049

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DK 8000

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DK 8003

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DK 8004

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DK 8005

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 = 306 32609D D21E12
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 = 339 34324D A96D22P7 + P2
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 = 359 30825D A96D22P2 + P7
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 * 439 74033D D21
 * 543 74066D B04D16J04
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 * 575 74087D D13E36
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EP G008

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EP G010

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51 14728W D18
57 54194X D15J01+P4
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997 52101X A26D15J01

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CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

ABSTRACTS

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FOOD DETERGENTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	28 SEP - 4 OCT 81	888,119 - 888,253
-Non Delayed	1 OCT 81	889,022 - 889,132
BRAZIL	29 SEP 81	8,001,753 - 8,103,751
CANADA	15 SEP 81	1,108,801 - 1,109,200
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E.GERMANY	22 JUL 81	149,599 - 149,748
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-Unexamined	7 OCT 81	36,855 - 37,393
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-Reissues	29 SEP 81	Re30,749 - Re30,756
-Patents	29 SEP 81	4,291,417 - 4,292,686

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Main CPI Class for Section	Latest Priority	Earliest Priority	Patent No
		Publication Date		Earliest Disclosure Basic Patent		IPC
				Accession No		
MEDA-			A89			69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SE28.7.75)						
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)						
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26						

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

KEMP/ ★ D11 75752 D/42 ★ BE -889-034
Flat belt V-trough kneading machine for dough pieces - is adjustable for wheat and rye based doughs in various sizes
KEMPER K 13.03.81-DE-109683 (06.06.80-DE-021329)
(01.10.81) A21c
01.06.81 as 889034 (448RH)

A bakery machine is for kneading dough pieces in a circular motion between two endless flat conveyor belts. The belts are arranged edge to edge with their active surfaces at an angle to form a 'V'-shaped trough in which the dough pieces are kneaded as they are advanced along the trough.

The frame of one conveyor belt is now linked to a rotary eccentric which displaces the frame in a circular motion perpendicular to the surface of the belt. The edge of the belt at the inner part of the 'V' is protected by a shaped kneading bar which moves with the conveyor belt frame.

The centre line of the 'V' is pref. inclined to the horizontal by less than 90 deg. and more than 20 deg. with the centre line of the 'V' set at between 40 and 50 deg. Pref. about 45 deg. to the horizontal, the faces of the two belts are symmetrically inclined on each side of the centre at an angle between 30 and 40, pref. 35 deg. Pref. both conveyor belt drives are reversible, as is the eccentric drive. A common switch may be wired to reverse all three drives simultaneously. Adaptable to knead satisfactorily both wheat based and rye based doughs as well as those based on wheat mixts. and rye mixts. Also readily adjustable for a range of sizes of dough pieces. (18pp)

VBER- ★ D11 75774 D/42 ★ BE -889-120
Bread slicing machine with motor driven load feed - powered via current limiter to reduce speed above given slicing resistance
MIJ VAN BERKELS PAT 06.06.80-DE-021284
P62 (01.10.81) B26d
05.06.81 as 889120 (1190DH)

The bread slicing machine comprises a motor which drives the cutter blade assembly and a motor driving a chain, which moves the loaf transport slide such that its feed rate automatically adapts to the consistency of the loaf at the area where it is cut.

The power connection to the motor contains a current limiter which steeply reduces its speed when the brake force presented to the slide increases the power absorbed above a given level.

The power connection may contain an interruptor switch which responds to the period during which the limiter is operative and/or to an excessive drop in the motor speed. (7pp)

KEMP/ ★ D11 75862 D/42 ★ DE 3011-863
Dough portioning device - prevents air inclusion by keeping pistons flush in empty chambers
KEMPER K 27.03.80-DE-011863 (00.00.79-DE-915348)
(08.10.81) A21c-05/04
27.03.80 as 011863 Add to 2915348 (39KB)

A dough portioning device for crusty rolls or small loaves of bread with a group of measuring chambers on the periphery of a revolving drum, each with a piston in various positions depending on the angle of turn, was described in the parent patent. In the dough discharge position, the measuring pistons are flush in their measuring chamber with the periphery and remain in that position for 180 deg. until they face the loading position.

This ensures that no air is trapped during the loading operation and the dough is treated gently. (19pp)

WINK ★ D11 75881 D/42 ★ DE 3012-289
Baguette transfer machine - with basket of bridge, straddling conveyor, and lifting and tipping baguette on oven conveyor
FR WINKLER SPEZZ KG 29.03.80-DE-012289
(08.10.81) A21b-03/07 A21b-07
29.03.80 as 012289 (39RP)

A machine to transfer baguettes from the outlet of a dough raising cabinet to the conveyor of a baking oven includes a conveyor which is straddled by a bridge with an articulated transfer basket. This can lift up the wooden moulds with the baguettes, move across the gap to the oven conveyor, tip the dough and deposit the moulds back in the pickup position. A mechanically raised roller table then carries the empty mould away sideways.

This machine is suitable for a transfer of baguettes, either in wooden moulds or in sheet metal moulds, fully automatically.

RIEG/ ★ D11 75948 D/42 ★ DE 3013-003
Easily cut, non-crumblly six-grain bread - contg. oat, maize, sesame, barley, wheat and rye grist and flour, linseed and millet
RIEGLER H 03.04.80-DE-013003
(08.10.81) A21d-13/02
03.04.80 as 013003 (200RP)

Six-grain bread consists, w.r.t. total dough, of 5-10% oats, 3-10% maize, 3-10% sesame, 3-10% barley, 3-10% wheat grist, 5-10% rye grist, 1-6% linseed, 1-8% millet, 0.5-2% spice, 25-35% water, 5-15% rye flour, 5-27% 5-27% wheat flour, 0.5-3% baking assistants, 0.5-1% salt and 1-3% yeast.

The bread obt'd. is nutritious, porous and can be baked thoroughly, can be stored and frozen, and cut both fresh and after prolonged storage. The bread can be coated with spread, does not crumble and has a pleasant taste compatible with butter, cheese, sausage, fish and sweet foods. (5pp)

WINK ★ D11 75984 D/42 ★ DE 3013-330
Baking vapours waste heat recovery - by heat exchanger in first and by recycling to steam zone in second zone
FR WINKLER SPEZI KG 05.04.80-DE-013330
(08.10.81) A21b-01/24 A21b-03/04
05.04.80 as 013330 (39AS)

The waste heat energy of continuous conveyor baking ovens is recovered by passing the hot vapours from the baking channel in a first stage through a heat exchanger for the prepn. of hot water and for an increase of their relative humidity. In a second stage, the lumps of dough are moistened by the vapours in a steam zone, assisted by an additional water spray if necessary to correct the relative humidity.

The waste heat recovery results in a great redn. in the consumption of live steam and in the prodn. of hot water. (9pp)

HABE/ ★ D11 75986 D/42 ★ DE 3013-348
Bread and pastry mfr. - from grain flour mixed with green flour contg. ground pasture grass, clover and/or lucern
HABERL P 05.04.80-DE-013348
(08.10.81) A21d-02/36
05.04.80 as 013348 (200RH)

Green flour of ground pasture- and meadow grasses, clover- and/or lucerne types (medicago) is added to an initial mixt. for prepg. baker's wares, esp. bread, biscuits, cookies, long-life bread, etc. The initial mixt., contg. a grain fraction, -grist or -flour, esp. rye- and/or wheat flour, water, yeast, NaCl and opt. further additives, is baked after raising the kneaded dough.

The green flour plants, esp. lucerne, have a high content of proteins, hemi-celluloses, pentosans and minerals. A high water absorption and dough yield can be achieved and the dough ripens quickly. The increased content of Ca, Mg, Na, K, Fe and Co and of lysine and cystine increases the nutritional value of the bread and also improves bread taste and aroma. (8pp)

PUMA- ★ D11 76223 D/42 ★ FR 2477-378
Bakery gravimetric process and installation for dividing dough pieces - of accurately controlled wt. at high prodn. rate
PUMA 06.03.80-FR-005077
(11.09.81) A21c-05 A21c-11 A21d-08/02
06.03.80 as 005077 (448BZ)

A bakery, gravimetric process and installation for dividing bread dough into pieces of known wt., each for making a loaf. The process is of the type in which dough from a hopper is reduced in thickness rollers which deliver a continuous sheet of dough. The leading end of the sheet advances onto and across the weigh head of a weighing machine, pref. a weighing conveyor. Each time the weigh head registers a predetermined wt., that piece of sheet is cut transversely from the front end of the sheet. The width between hopper side walls is equal to the width of the sheet and is a multiple of widths of individual dough piece strips into which the sheet is longitudinally slit.

The progressive thickness reduction of the dough via a hopper and rolls to final sheet is effected by stress forces applied only in a direction normal to the thickness. The advance of dough between hopper and delivery of dough piece strips is continuous, transverse cutting taking place as the sheet is in motion.

Used for bakery maps prodn. of dough pieces of known wt. for bread mfr. (16pp)

SWIL D11 91700 A/51 = GB 1600-167
Biscuit counting stacker - with biscuits transferred from inclined pockets of endless conveyor by rod pairs on second conveyor (NL 5.12.78)

SIG SCHWEIZERISCHE 02.06.77-CH-006812
Q31 Q36 + Q35 (14.10.81) *DE2823-690 + B65h-29

26.05.78 as 023345 (006AS)

Stacking appts. for flat articles such as biscuits, comprises a conveyor with relatively-movable pockets to which are distributed sequentially, specifically from a supply chute with a vertically reciprocating platform with slots for pusher fingers.

Stacking bars disposed in pairs above the pockets move in the same direction as the conveyor but at different speed, and displace articles from one pocket to another to form stacks. Specifically the stacking bars travel either faster or slower than the conveyor. Pref. the pockets slope at 10 to 30 deg. to horizontal. (6pp)

CAVA/ ★ D11 76334 D/42 ★ GB 2073-089
Die plate for extruding tubular pasta - two discs with cooperating projections and holes securable to conventional extruder

CAVALLI A 04.04.80-IT-021392
(14.10.81) A21c-11/16

26.02.81 as 006144 (1358RH)

A plate is connectable to a conventional extruder by a threaded ring nut and comprises a disc with solid circular section parts projecting from one surface and a second disc with openings to receive the parts. The first disc has through holes coaxial with and of greater diameter than the parts.

The parts are fixed within respective holes in the first disc by support webs in the base of the holes. The openings in the second disc are pref. frustoconical and each disc has peripheral shoulders for engagement by the nut. The webs pref. project from the first disc to engage the second disc opening. (5pp)

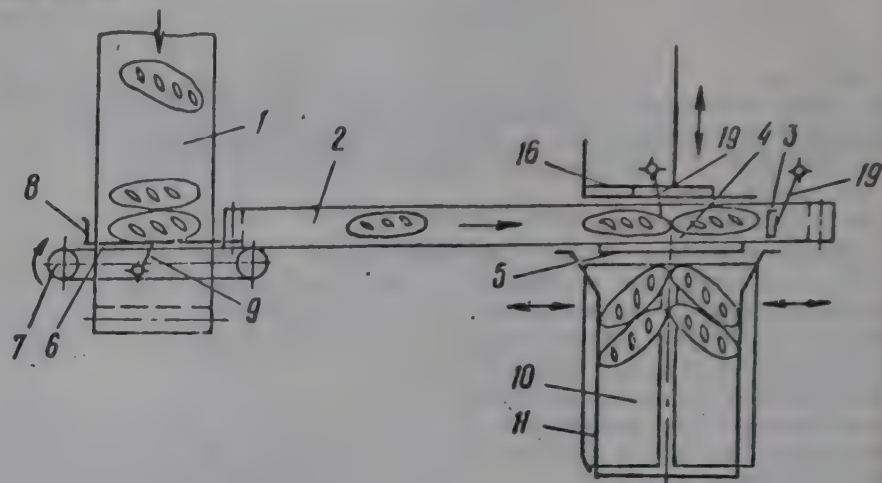
ISKH/ ★ D11 77200 D/42 ★ SU-797-969
Bread loaves feeder - includes accumulating conveyor with escapement at junction with transfer conveyor

ISKHAKOV E G 31.07.78-SU-651339
X25 Q31 (23.01.81) B65b-05/10 B65b-35/20

31.07.78 as 651339 (89WD)

Bread feeder and placer of enhanced reliability has an accumulating conveyor perpendicular to the input conveyor, while single item transfer mechanism is fitted at their junction. The escapement includes a support guide set across the accumulating conveyor with the bread transferred by an endless conveyor with a pusher.

The bread loaves reach the transfer point of the accumulating conveyor I in a random manner with the curved profile of the guide 6 preventing turnover. Sensor 9 provides a signal in the case of loaf presence for pushing the bread onto conveyor 2 by shifter 8. The loaves are transported to the abutment 3 where pairs are assembled for pushing between flaps 10. Bul.3/23.1.81 (3pp Dwg.No.1)



MOFO= ★ D11 77438 D/42 ★ SU-798-54
Bread dough baking preparedness monitor - fixes readiness by analysing rate of change of resistance of extrema, counts indicating dough fermentation

MOSC FOOD IND TECHN 27.03.79-SU-755815
S03 X25 (23.01.81) G01n-33/10

27.03.79 as 755815 (39MC)

A device, to determine that half-finished products of the bread baking industry are ready for baking, consists of a pickup which is placed in the lump of dough and is joined to the input of an a. bridge. On receipt of a signal from a control unit, the bridge measures a first value of the dough resistance which is passed to a recorder, and through a key to a buffer register. A later second value enters the buffer register via another key. Bul. 3/23.1.81 (3pp)

D12: MEAT; FISH PROCESSING

LAVI/ ★ D12 75776 D/42 ★ BE-889-126
Powdered caramel mfr. from sugar by heating - adding ammonium salt, then foaming the mass, cooling and grinding

LAVIE L F 26.02.81-US-238648 (04.07.80-CH-005174)
E35 (01.10.81) A23g C13d

05.06.81 as 889126 (597RF)

The process comprises heating sugar to 140-200 deg.C and letting the viscous caramel obtd. cool to about 120 deg.C. An ammonium salt, which is volatile or in gaseous form at this temp, is then added to precolour the mass. The mass is then transformed into foam by adding sodium bicarbonate and an edible acid. The foam is then cooled to ambient temp. and ground.

Caramel is used e.g. in confectionery and in drinks. The powder form is easy to transport and handle and does not take up moisture when packed in a sealed container. It is also useful in drink dispensers and can be used as a carrier for normally liquid ingredients such as phosphoric acid. (8pp)

KOCO/ ★ D12 D/42 ★ CS 8101-237
Singed pigs hides scraper
KOCOUREK M 20.02.81-CS-001237
(10.09.81) A22b-05/08

FARH ★ D12 75577 D/42 ★ DE 8012-252
Cellulose hydrate tube with impermeable lining esp. for sausage skin - produced by squeezing in roll gap above reservoir surface of dispersion coating

HOECHST AG 28.03.80-DE-012252

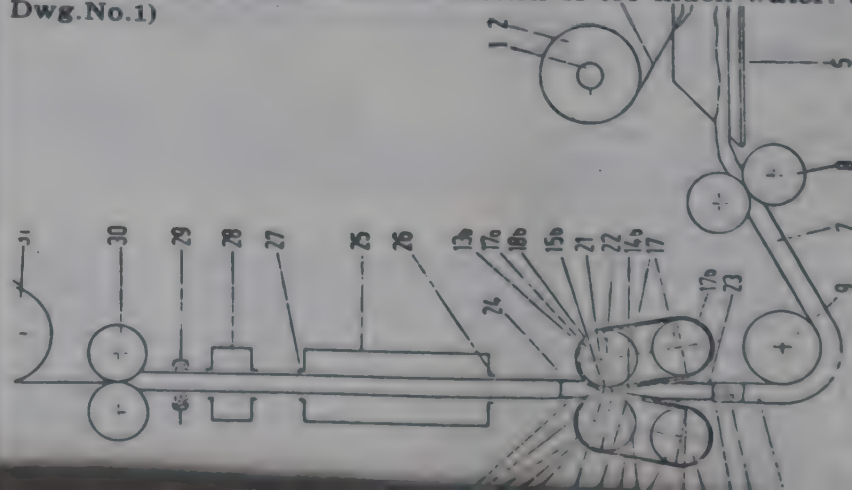
A11 P42 (A22 A97) (06.10.81) A22c-13 B05c-07/04 B05d-01/40 B05d-07/22

29.03.80 as 012252 (754DH)

the tube passes between two rolls or belts in a roll gap (21) which forms the metering gap; thus the film (23) applied to the internal surface of the tube from the liquid is metered to the desired quantity at this point and after this the tube continues upward through a drying stage, typically a hot-air unit (25).

Here the moisture content of the internal coating liquid evaporates and diffuses outwards through the tube wall, thus forming an internal film on the tube. The tube is subsequently cooled (28), optionally sprayed with water (29) on its external face, pressed flat (30) and wound onto a storage roll (31).

The method does not require the use of an excessively diluted dispersion which results in a non-uniform film and distortion of the tube properties due to the action of too much water. (40 Dwg.No.1)



VIT/ ★ D12 75909 D/42 ★ DE 3012-622
 Laminated sausage case - with hoses for load carrying and hoses
 barriers against moisture and oxygen
VON WITZLEBEN J W 01.04.80-DE-012622
Q32 (08.10.81) A22c-13 B65d-37
 04.80 as 012622 (39KB)
 Laminated case for sausage or meat consists of at least two
 connected concentric hoses which are tied together at both
 ends by common closures. One of them is a load-carrying hose
 and the other can be designed as a barrier against moisture
 and/or air. A mechanical protection hose can be added and one of
 the hoses can carry an imprint or can be perforated.
 This saves the conventional lacquering and the high labour
 costs for this operation. An extra packing for display in
 supermarkets is saved and all information required by a
 customer can be incorporated. (20pp)

SLAG- ★ D12 D/42 ★ DK 8000-130
 Handling plant for slaughtered animal carcasses
SLAGTERIERNES FORSK 11.01.80-DK-000130
 (21.09.81) A22c-05

MOBA- D12 48337 B/26 =EP G002-554
 Device for holding and treating e.g. fowl - has holding element
 equipped with sensor which grips bird by the knee
MOBA HOLDING BARNEV 09.12.77-NL-013640
Q31 + Q35 (07.10.81) *NL7713-640 A22c-21
 04.12.78 as 200345 (1376TM) (E) NL7410087 E(BE CH DE FR GB
 SE)
 Each gripper for handling one leg of a fowl has a feeder movable
 between a first position in which at least part is in the space
 occupied by a leg when gripped, and a second position in which no
 part occupies the space.
 The grippers will not operate when the feeders are in the first
 position. (10pp)

TOTA- ★ D12 76022 D/42 ★ EP --36-903
 Cutting sausage links in intestine casings - while supported on
 drum by pneumatic pressing rollers
TOTAL KK 13.03.80-JP-033093 (13.03.80-JP-032090)
 (07.10.81) A22c-11/12
 18.07.80 as 104208 (295HM) (E) FR1592411 GB1536502 US3659316
 US4104763 FR2078017 US3646637 US3156006 E(AT BE CH DE FR
 GB IT LI LU NL SE)
 A string of linked sausages formed in natural intestine casings is
 fed onto a drum. At the upstream end of the drum, the sausages
 pass between convergent pairs of rollers which are radial to the
 drum. At a downstream section of the drum, the sausages are
 pressed against the surface of the drum by resilient pneumatic
 rollers whose axes are parallel to that of the drum. These rollers
 correct the pose of the sausages. A cutter severs the links of the
 sausages at a station adjacent the downstream end of the
 pneumatic roller section.
 Sausages in natural casings can become distorted. The drum
 accepts distorted sausages and partially restores their shape so
 that they can be cut through the links without damaging the body
 of the sausages. (16pp)

NEST ★ D12 76042 D/42 ★ EP --36-973
 Spun fish protein prodn. from alkaline protein soln. - by injecting
 into acid coagulant, then washing, heat fixing and neutralising
SOC PROD NESTLE SA 31.03.80-CH-002521
 (07.10.81) A23j-03 D01f-04
 09.03.81 as 101718 (1251AT) (F) No-citns. E(DE FR GB IT SE)
 Process for spinning fish proteins comprises first forming an
 alkaline protein soln. by (a) grinding fish (whole or pieces) with
 water at wt. ratio water:fish 0.7-2.5 (1-1.5); (b) adding alkali at
 alkali:fish wt. ratio 0.5-1.5 (dry wt. basis); (c) heating, pref. by
 steam injection, at 60-100 deg.C for 0.5-3 min; (d) cooling to 35-60
 deg.C; (e) passing through a colloid mill; (f) centrifuging to
 remove solids, then (g) deaerating, opt. with concn. to dry matter
 content 6-10 wt.%.
 The soln. is then passed through a spinnerette into a soln.
 maintained at pH 0.7-0.9 and salt concn. 7-15 wt.%, then the fibres
 formed washed, heated (to fix their structures) and neutralised,
 pref. to pH 6-6.8. The protein fibres themselves are claimed.
 The fibres are highly nutritious (protein efficiency ratio about
 3.8; better than casein) and useful for making e.g. rollmops or fish
 sticks. They can be made from whole fish or fish processing
 wastes without requiring any additives, have excellent
 mechanical qualities, are white or grey (depending on whether
 the starting material included skins and heads) and have nearly
 the same taste as the original fish. (14pp)

FARH ★ D12 76061 D/42 ★ EP --37-023
 Hydrated cellulose hose with internal coating - mfd. by squeeze
 rolling an aqueous polymer dispersion inside
HOECHST AG 28.03.80-DE-012250
A97 P42 (A11 A32) (07.10.81) A22c-13 B05d-07/22
 20.03.81 as 102078 (39HM) (G) DS1492708 DE1786517 DE2557994
 DE2856253 DE2659000 US3567495 DE2801038 DE2505207 EP---1545
 E(AT BE CH DE FR GB IT LI LU NL SE)
 Packaging case, esp. a synthetic sausage skin, is made of a
 hydrated cellulose hose which has on the inside an adhesion
 activator layer and receives an internal coating of an aqueous
 dispersion, containing at least 20 wt.% dispersed synthetic resin.
 The hose is passed in an ascending direction between flattening
 rolls above the level of the dispersion which leaves a metered
 film. A heating zone removes the dispersing agent through the
 skin. After external moistening and flattening the finished hose is
 wound up to a coil.

This produces a uniform uninterrupted film of a synthetic
 polymer on the inside of a hydrated cellulose hose. The energy
 consumption is low and there is no undesirable dimensional
 change of the hose by shrinkage. (35pp)

FARH ★ D12 76062 D/42 ★ EP --37-024
 Hydrated cellulose hose with internal coating - mfd. by squeeze
 rollers for aq. synthetic resin dispersion
HOECHST AG 28.03.80-DE-012251
A97 P42 (A11 A32) (07.10.81) A22c-13 B05c-07/08 B05d-07/22
 20.03.81 as 102080 (39HM) (G) DS1492708 DE1786517 DE2659000
 DE2856253 EP---1545 E(AT BE CH DE FR GB IT LI LU NL SE)
 Hose, for use as a sausage skin, is made by moving a hydrated
 cellulose tube, filled partly with an aq. liq. with a chemical
 substance suitable as a coating, in the ascending direction
 between two revolving rolls. At least one of the rolls is profiled.
 The gap between the rolls fixes the thickness of internal coating
 and the air-filled hose is passed through a hot air drying tunnel, a
 cold air spray, a water spray, and a pair of squeeze rolls before it
 is wound up on a reel.

This permits two to four times faster processing speeds. The
 aq. dispersion cannot run off. The energy consumption is low and
 the coating liq. can be metered accurately. (50pp)

FARH ★ D12 76063 D/42 ★ EP --37-025
 Hydrated cellulose hose with outer coating - mfd. by roll
 application of aq. copolymer dispersion
HOECHST AG 28.03.80-DE-012064
A97 P42 (A11 A32) (07.10.81) A22c-13 B05c-07 B05d-01/18
 20.03.81 as 102081 (38HM) (G) DE1938748 EP---8646 US2961323
 DS1142297 DE1900324 DS1504690 DE2540996 E(AT BE CH DE FR
 GB IT LI LU NL SE)
 Hose, made of hydrated cellulose, for use as a sausage skin, is
 coated on the outside with an aqueous dispersion, containing at
 least 20 wt.% of dispersed copolymer. The hose is passed through
 a tank with the dispersion and vertically up through the gap
 between two rolls which equalize the adhering coating. A drying
 tunnel is followed by a water spray before the finished hose is
 wound up.

The hydrated cellulose hose is dipped through a tank contg. e.g.
 an aq. dispersion of 20-40 (20-30) wt.% of dispersed copolymer,
 contg. at least 75 wt.% of copolymerised vinylidene chloride. The
 rolls with the gap leave a thin film which is equalised to the film
 by rolls. A drying tunnel is followed by a hot steam humidifier
 before the hose is coiled up. The film is adjusted to come within 6
 to 20 g per sq.m. Typical figures are: hose speed 40 m/min;
 applied polymer film thickness 20 µm, reduced by drying to 8-10
 microns.

This produces a uniform uninterrupted film on the outside of a
 hydrated cellulose hose and prevents shrinkage of the hose.
 (24pp)

STEM/ ★ D12 76085 D/42 ★ EP --37-086
 Protective pigmented meat-coating compsns. - contg. acetylated
 mono:glyceride, cellulose ester, paraffin wax or opt.
 microcrystalline wax and pigment
STEMMLER M 28.03.80-DE-012192
A97 E17 (D23) (07.10.81) A23b-04/10
 26.03.81 as 102293 (200JB) (G) No-citns. E(AT BE CH DE FR GB IT
 LI LU NL SE)
 Protective, pigmented coating compsns. for meat prods. contain
 by wt. (A) 20-60 (25-45) esp. 30-35 parts distilled, acetylated
 monoglycerides, (B) 30-70 (40-60) esp. 50-55 parts paraffin wax and
 opt. microcrystalline wax, (C) 5-20 (5-15) esp. 8-12 parts cellulose
 ester and (D) 5-25 (12-20) esp. 10-17 parts pigments.

The compsns. are used esp. for coating smoked meat prods.
 e.g. raw sausages, esp. salami, and raw meats, e.g. ham. A white
 protective coating for salami is claimed. The opaque, thin
 coatings act as flexible, hygienic packaging materials, are easily
 peeled off meats, have limited vapour-permeability, do not
 prevent the escape of smells, resist temps. of minus 40 to plus 50

STRK ★ D12 76117 D/42 ★EP --37-160
Thickening offal-fat mixt. - passing through successive evaporator stages with thermal syphon upward flow
 STORK DUKE BV 02.04.80-NL-001954
 (07.10.81) A23k-01/10 A23n-17 B01d-01/12
 01.04.81 as 200360 (1358HM) (E) GB-425056 GB-446587 US3242970
 US4117175 US2510233 US2570213 NL6809729 3.Jnl.Ref E(DE FR GB NL SE)

Crude prod. is ground, mixed with an equal amt. of fat and passed through successive evaporating stages each with a vertical pipe heat-exchanger and vapour separator. Mixt. is fed to the bottom of each exchanger and rises due to the thermal syphon effect of the vapour bubbles formed.

At the exchanger top the prod. is released and fed back via a separator towards the exchanger bottom to maintain a circulation while a controlled amount is discharged to the subsequent stage. The outlet line of a stage pref. passes to the bottom of a subsequent stage via a metering pump. Each exchanger may comprise a rising film evaporator. (15pp)

TEEP ★ D12 76150 D/42 ★EP --37-228
Shirring sausage casings by typically 6 radial wheels - mounted on head rotating at adjustable rate
 TEEPAK INC 02.04.80-US-136658
 (07.10.81) A22c-13/02

23.03.81 as 301230 (295HM) (E) No-Citns. E(AT BE CH DE FR IT LI LU NL SE)

Sausage casing is shirred by advancing it along a mandril by a set of grooved wheels. There are at least 5 and pref. 6 wheels which extend radially from the casing. The peripheries of the wheels contact adjacent the casing to form a continuous ring. The wheels are mounted on a head and are rotated about their respective axes by a common drive.

The entire head can be rotated about the casing in either a clockwise or anti-clockwise direction. The drive for the head and that for the wheels is taken from a common gearbox which includes a differential gear which ensures that the shirring wheel rotation is independent of the speed of rotation of the shirring head.

The appts. shirrs sausages casings. (33pp)

GETP- ★ D12 76197 D/42 ★EP --37-350
Installation for storing, preserving and transforming meat prods. etc. - encompasses raw material and prod. in circulated sterilised air flow

GETPLAST SARL 21.03.80-FR-007246

(07.10.81) A22c-17 A23b-04

19.03.81 as 420040 (448NS) (G) FR2275149 US2196080 GB-510813
 FR2086094 FR2450563 FR2428982 E(BE CH DE GB LI NL)

Installation is for the storage, preserving and transforming e.g. mincing, slicing, reconstituting, of food prods., esp. meat prods. The installation is of the type comprising a raw material storage zone, a machine for transforming the material e.g. a mincer, and a reception zone for transformed material.

The installation is now equipped with a system for circulating sterilised air which encompasses the storage zone, the active zone of the transforming machine, and the reception zone.

The circulating air pref. provides an aseptic shield for the whole the storage, treatment and/or the reception zones are opened to atmos. for loading, servicing, discharging etc. Pref. the circulating air is passed through the storage zone, a sterilising zone and then recycled upwards through the active zone of the transforming machine and the prod. reception zone. The air can be recirculated at ambient temp. or it can be refrigerated.

Mfr. of minced meat, beefburgers, sliced meat etc. The raw material is stored, transformed and the prod. collected in aseptic conditions. Loading in raw material and discharging finished prods. are also screened by circulating sterilised air. In this way, the risk of bacteria proliferation is practically eliminated. (11pp)

BOIZ- ★ D12 76224 D/42 ★FR 2477-379
Machine for applying powder to sausage surfaces - conveys suspended sausages between rotating brushes as powder is applied

BOIZET & BERAUD SOC 07.03.80-FR-005462

(11.09.81) A22c-13

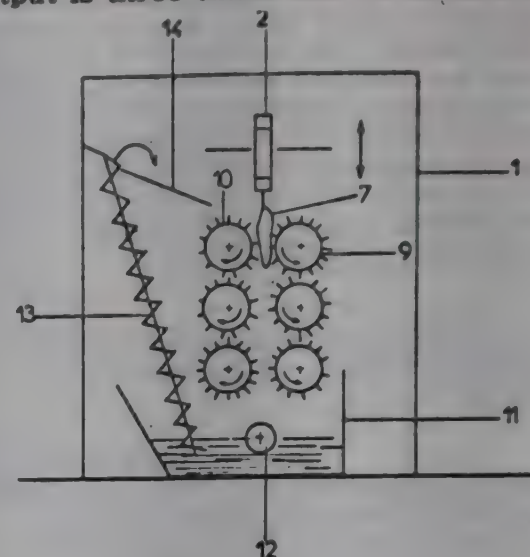
07.03.80 as 005462 (448DH)

There is a chamber in which the treatment takes place and a linear, pref. horizontal conveyor from which the sausages are suspended by flexible attachments to be carried through the chamber. As a sausage is conveyed through the chamber it is suspended between at least one pair of brushes rotating in opposite directions on axes parallel to the direction of travel of the conveyor. At the same time the conveyor is alternately raised and lowered w.r.t. the brushes.

Pref. a fluid treatment agent, e.g. a powder is poured over the sausages as they pass between the brushes. Surplus powder falls

conveyor screws.

Used for powdering the surfaces of sausages with cereal flour, powdered rice etc. The powder is applied evenly over the whole sausage surface, deposits being brushed out of any crevices or wrinkles. The new machine is simpler and less costly than prior art machines. Less powder is wasted and atmos. dust problem reduced. Output is three times that of manual operation. (10pp Dwg.No.2)



UNIC D12 78150 A/41 = GB 1600-1
Neutralised aq. liq. smoke mixt. - contains alkali and alcohol solubiliser and is applied to cellulose or collagen food sheath (B 2.10.78)

UNION CARBIDE CORP 31.03.77-US-783425

A97 + Q31 (14.10.81) *DE2813-796 A231-01/23

30.03.78 as 012401 (974AS)

Novel aq. liq. smoke compsns. comprise an aq. soln. of a uniform mixt. of smoke colouring and flavouring consists; an alkali neutralising agent to keep the pH at 5-8, and sufficient water soluble alcohol solubilising agent to prevent the smoke const separating out.

Pref. the smoke colouring and flavouring constits. are derived from a liq. smoke soln. Compsns. are esp. used for meat prod (10pp)

KASP- ★ D12 77155 D/42 ★SU-793
Glazing cage for large fish, e.g. sturgeon - has end grippers linked by side rods so that minimum contact is made with cage

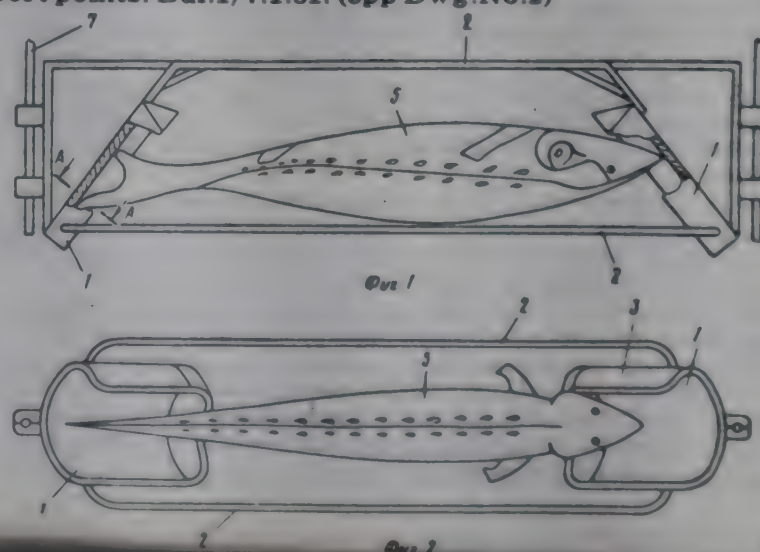
KASPIAN KASPTTEKHRYB 10.11.78-SU-684811

(07.01.81) A23b-04/06

10.11.78 as 684811 (29VE)

The quality of the fish glazing is improved by reducing contact of the product being glazed with the cage. This is made with two grippers (1), linked together by rods (2), each of which is shaped like a trough with one of their edges bent inwards. Each gripper has a curved support arranged inside it.

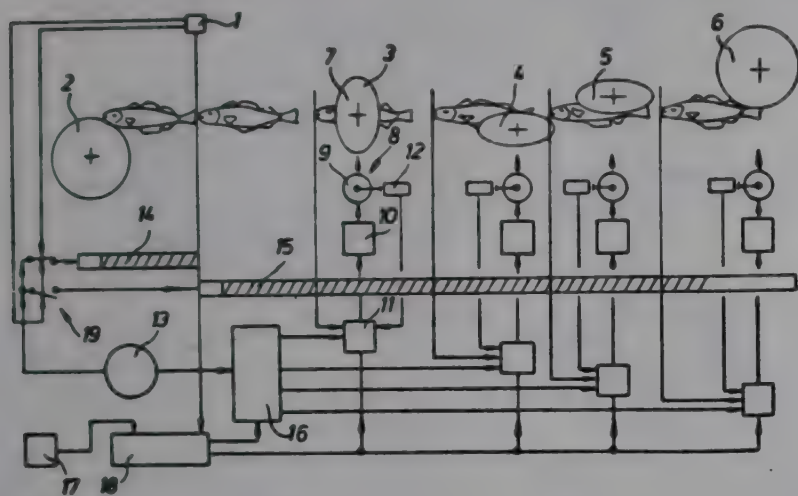
In the glazing process a tank containing cold water is provided. The cage containing the fish is alternately dipped into the water in the inverted position, until the fish is covered. The fish is turned through 90 deg. moved along the tank for a preset time, turned again through 90 deg. and removed from the tank. The grippers (1) keep the fish underneath the water so that it can float. A second variation of carrying out the glazing process is described. The fish, after immersion in the water, is lifted into a flow of cold air and the glazing is done more efficiently because the fish is in contact with the minimum number of support points. Bul.1/7.1.81. (3pp Dwg.No.2)



NMHB D12 31171 C/18 #US 4291-435
Fish processing machine stations control - by microprocessor
with input of fish length and machine parameters
NORDISCH MASCH R BAADER 07.07.79-DE-927583
(09.11.79-US-092693)
T06 X25 (29.09.81) *DS2927-583 A22c-25/14

09.11.79 as 092693 (1358JB)

For processing fish in a machine with tools and guides along a conveyor path a measuring unit (14) counts pulses for each fish so that the sum is proportional to fish size and is fed into a computer (18) which determines control data by comparison with stored fish and machine data and controls the starting times and movements of setting members.



The setting members are pref. stepping motors (9) and actuation is carried out in accordance with a stored programme. Measurements are related to fish travel units comprising a determined number of pulses for 1 m fish travel path or a specific number of pulses delivered from a timer (13) associated with the measuring unit. (5pp)

NMHB D12 36582 C/21 #US 4291-436
Cleaning abdominal cavity of beheaded fish - by suction device
drawing entrails into revolving clam arranged alongside conveyor

NORDISCH MASCH R BAADER 20.07.79-DE-929386
(07.12.79-US-101091)

(29.09.81) *DS2929-380 A22c-25/14

07.12.79 as 101091 (006AS)

Appts. for gutting headless fish, comprises a suction head behind which is a mechanism for gripping entrails entrapped by the suction head. The decapitated fish are gutted while lying crosswise upon a feed conveyor.

Pref. a decapitation blade is upstream of the suction head, the gripping mechanism being a vaned rotor inside the head and with resilient vanes. Specifically the advancing fish lift a shutter which exposes a suction opening of the suction head. (5pp)

D13: OTHER FOODSTUFFS

LAVI/ ★ D13 75775 D/42 ★BE-889-125
Water soluble powder compsn. for prepn. of drinks - contg. instant sugar plus absorbed and adsorbed ingredients

LAVIE L F 11.03.81-US-242648 (04.07.80-CH-005173)

(01.10.81) A23l C13f

05.06.81 as 889125 (597RP)

The compsn. contains instant sugar and ingredients absorbed and adsorbed on the interior and exterior surface of the sugar particles. It is used at 5-10% in drinks.

The compsn. pref. contains powdered caramel and NaHCO₃ and an acid, esp. citric, phosphoric or tartaric acid. Pref. absorbed/adsorbed ingredients are natural oils, esp. lemon, orange, cinnamon and caryophyllum and gums, esp. arabic and tragacanth.

Used to prepare medicinal and thirst quenching drinks, the above dissolve or disperse rapidly in water. The compsn. also enables the incorporation of normally liquid ingredients such as phosphoric acid, oils and gums. (10pp)

MAKE/ ★ D13 D/42 ★BR 8001-849
Chewing gum vehicle
MAKEDENSKY K 27.03.80-BR-001849
(29.09.81) A23g-03/30

WAKA/ ★ D13 D/42 ★BR 8103-228
Stevioside extracts purificn.
WAKABAYASHI T 25.05.81-BR-003228
B03 E13 (29.09.81) A23l-01/23

BIOM- ★ D13 75783 D/42 ★CA 1108-920
Prepn. of animal feed biomass - by aerobic culture of sewage microorganisms on fermentable liq(s) esp. sulphite waste liq.

BIOMASSAN LTD 31.01.80-CA-344852

C03 F09 (D15 D16) (15.09.81) A23k-01/06

31.01.80 as 344852 (478BZ)

Biomass is prepd. as follows: (a) liq. (I) contg. refuse fermentable materials is mixed with nutrients; (b) liq. is fed into an aerobic reactor contg. microorganisms derived from sewage; where (c) the liq. is biodegraded by the microorganisms which multiply to afford a biomass-contg. body.

Step (a). Nutrients pref. contain N:P:K in the ratio ca 12:2:1, and are esp. NH₃ and KH₂PO₄. (I) pref. contains carbohydrates, and is esp. sulphite waste liquor contg. not more than 10% solids. Step (b). Microorganisms are pref. acclimatized, e.g. sewage organisms are pref. treated with sulphite waste liq. for 10-20 days. Fermentation is at 15-40 pref. 20-22 esp. ca 20 deg. C/pH 4-7 (pref. adjusted with NH₃) for ca 72 hr. in the presence of an antifoaming agent, and with aeration to give 0.2-2.1 pref. ca 1.5

for the treatment of a variety of waste effluents, esp. sulphite waste liquor. The prepd. biomass is suitable as an animal feed (20pp)

PETK/ ★ D13 D/42 ★CS 8007-37
Salt lick for ruminants
PETKOV S 29.10.80-CS-007316
(10.09.81) A23k-01/17

ANDE/ ★ D13 D/42 ★DK 8000-12
Cheese refining appts.
ANDERSEN H O 11.01.80-DK-000123
P13 (21.09.81) A01j

KOOP/ D13 60857 Z/00 =DS 1800-76
Cheese curds prodn.
KOOPMANS H 04.10.67-NL-013462
+ P12 (08.10.81) *BE-721-354 + A23c-19/05
03.10.68 as 800766 (39PW)

A device for dewatering paracasein and for moulding cheese consists of a rectangular container with a pattern of vertical perforated tubes which are filled with paracasein. The whey which has been displaced outside through the perforations is discharged from the container, and the cheese is extd. by periodically opening the tube closures.

The entire container is filled with whey before the tubes are filled with paracasein. This makes the tube filling a very gentle process. As the whey is slowly discharged, the dewatering starts at the top and progresses downward.

The result is a much improved consistency of the cheese. (7pp)

SWAN/ D13 69670 R/38 =DS 2012-6
Recovery of proteins from their aq soln in - low mol wt solvents
SWANSON E C 18.03.69-US-808189
(08.10.81) *BE-747-494 + A23j-01

17.03.70 as 012675 (068PW)

Protein is recovered from its aq. soln. with soluble material of lower molecular wt. than the protein, esp. a milk deriv. such as skim milk from which most of the lactose and lipoids have been recovered. The use of reconstituted milk is excluded. The protein soln. contg. 23-45% solids is the charge soln. on a molecular sieve layer of 10-100 mm thickness and with a pore size allowing only the penetration of the molecules of lower molecular wt. than the protein.

The vol. of the charge soln. is 25-65(30-50)% of the layer vol. Protein is then recovered by elution from the layer. Edible protein is recovered. PS (10pp)

L D13 70323 T/44 = DS 2265-549
 ese products - with aroma of ripe cheese by incorporating
 thetic alkylamines etc
UNILEVER NV 08.04.71-LU-062955 (08.04.71-LU-062954)
E16 (08.10.81) *NL7204-792 A231-01/22
 4.72 as 265549 (068PW)
 ese prods. and other foodstuffs in which a cheese taste is
 uired are given an improved aroma of ripe Emmental cheese
 addn. of (a) 3-5C alkylamines or their salts obtd. synthetically
 ncn. in finished prod. 0.2-60 mg/kg) and (b) 7-9C aldehydes
 mtg. a phenyl gp. obtd. synthetically (concn. in finished prod.
 -18 mg/kg) as well as the known constituents, (c) 2-8C alkanolic
 ds and as desired (d) 5-7C 2-alkanones, (e) 2-6C alkane
 lehydes, (f) diacetyl, 3-methylthiopropanol, dimethyl sulphide,
 2-6C 2-oxo-alkanoic acids and 4-5C 2-oxo-alkane diacids or (h)
 ethyl and ethyl esters of 4-10C alkanolic acids. PS (5pp)

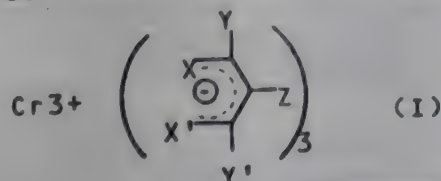
RL- D13 91831 B/51 = DS 2918-583
 automatic synchronisation of dispenser with mould boxes - esp.
 r chocolate creams, by planet gears actuating servo motor
CARLE & MONTANARIS 07.06.78-IT-024299
(08.10.81) *DE2918-583 A23g-01/22
 05.79 as 918583 (39PW)
 machine to cast confectionery on plates which are moved by an
 endless chain conveyor is fitted with a dosage device which is
 ciproccated above the plates by a cam mechanism and lever
 rrying a roller. A differential gear driving the camshaft has a
 reversible motor on its second input, while its output shaft drives
 e cam. A comparator for the position of the dosage plates with
 e speed of the cam drive applies a correction by controlling the
 reversible motor.
 This ensures that the dosage device always has the correct
 position relative to the casting plates. PS (8pp)

ENK D13 73985 D/41 = EP --37-017
 at compsn. suitable as milk fat substitute - contains fatty acid-
 butyric acid triglyceride and opt. hardened fat or oil
HENKEL KG AUF AKTIEN 27.03.80-DE-011807
(07.10.81) *DE3011-807 + A23d-05 C11c-03/08
 03.81 as 102055 (1251JB) (G) No-Citns. E(AT BE CH DE FR GB
 IT LI LU NL SE)
 fat with properties resembling milk fat comprises (a) 10-50 (12-
 3)wt.% fatty acid-butyric acid triglyceride (I) made by
 sterifying mainly 16-20C fatty mono- and/or di-glycerides with
 butyric acid (anhydride) and (b) 50-90 (82-88)wt.% of one or more
 2-20C fatty acid-contg., opt. hardened, fats or oils.
 Esp. the fat contains 3-5% butyric acid (on total fatty acids) and
 an also include 6-10C fatty acids to provide a fatty acid compsn.
 imilar to that of natural butter fat.
 The compsn. is used as a replacement for milk fat. It can be
 nexpensively prepd. from animal or vegetable fats available in
 arge quantity and has improved storage stability. (9pp)

PROC ★ D13 76108 D/42 ★EP --37-144
 Stable chromium complexes - useful for providing dietary
 chromium supplements and as hypoglycaemic agents
PROCTER & GAMBLE CO 31.03.80-US-136018
B05 C01 E12 (07.10.81) A23k-01/16 A23l-01/30 A61k-31/28
A61k-37/26
 23.03.81 as 200316 (1248AS) (E) No-citns. E(AT BE CH DE FR GB
 IT LI LU NL SE)
 Chromium complex of formula (I), for providing to a human or
 lower animal a nutritionally supplemental amt. of chromium, is
 new.

X and X' are each O, NH, S or NR₁; Y and Y' are each alkyl,
 aryl, H, COOR₂, SR₁, OR₁, perfluoroalkyl or perfluoroaryl; Z is
 NO₂, H, COOR₂, NHCOR₂, CN, OR₁, COR₁, SCN, CHO,
 perfluoroalkyl, alkyl, aryl or perfluoroaryl; R₁ is 1-22C alkyl or
 aryl; and R₂ is 1-22C alkyl. Provided that when X and X' are both
 O and Y and Y' are both Me, then Z is other than H.

Complexes (I) are dietary supplements and hypoglycaemic
 agents for man and animals; by preventing chromium
 deficiency, diseases such as juvenile-onset and maturity onset
 diabetes involving impaired glucose metabolism are avoided.
 Complexes (I) are stable and safe for use. Dose is 0.15-100
 micrograms of Cr (as complex)/kg, higher dosages being used in
 diabetes therapy (usually 1-4 times daily). (23pp)



PURD D13 77551 D/42 = EP --37-180
 Prodn. of mature asexual cacao embryos - by non-agricultural in-
 vitro culture of immature zygotic embryos
PURDUE RESEARCH FOUNDATI 20.03.80-US-131883
P13 (07.10.81) *US4291-498 + A01g-07
 05.03.81 as 300923 (PW) (E) 1.Jnl.Ref E(AT BE CH DE FR GB IT
 LI NL SE)
 A non-agricultural method for production of cacaoembryos
 comprises (A) treatment of immature zygotic cacao embryos in
 a basal medium in presence of a growth enhancer to initiate
 asexual embryos. (B) proliferating the embryos by low sugar
 amendment of basal media after removal of the growth
 enhancer, (C) growing the embryos in the media under aerated
 conditions to optimum size under the low sugar conditions, (D)
 continuing the growth of the embryos in the media under aerated
 conditions and by a high sugar amendment to the basal media,
 and (E) harvesting the embryos so produced. (13pp)

GENO ★ D13 76139 D/42 ★EP --37-205
 Frozen aerated gelatin dessert compsn. - free of starch, and
 prepd. so as to contain small ice crystals
GENERAL FOODS CORP 27.03.80-US-134609
(07.10.81) A23g-09/20
 17.03.81 as 301120 (955HM) (E) No-Citns. E(AT BE CH DE FR GB
 IT LI LU NL SE)
 Frozen aerated gelatin dessert free of starch is prepd. by
 dissolving in water 0.6 to below 5.0wt.% gelatin and 5-50wt.%
 soluble solids based on wt. of compsn., and sufficient acid to give
 a pH of 2.5-7, cooling the mixt. to 10-32 deg.F to at least partially
 freeze the mixt. while simultaneously agitating and aerating the
 mixt. to an overrun of 3-200%, then shaping the mixt. and cooling
 it to below 10 deg.F to give a prod. contg. ice crystals of size 20-200
 microns.

The prod. is smooth and creamy without a gummy or icy
 quality. It retains its shape and does not release water during
 thawing, and will remain on a stick. It is storage stable. (14pp)

GENO ★ D13 76140 D/42 ★EP --37-208
 Modified waxy maize starch having properties of tapioca - prepd.
 by heat treatment followed by pre-gelatinisation
GENERAL FOODS CORP 31.03.80-US-135578
(07.10.81) A23l-01/19
 18.03.81 as 301147 (955DH) (E) BE-850900 US3527606 US2401813
 GB1499023 EP--20096 E(AT BE CH DE FR GB IT LI LU NL SE)
 Pregelatinised waxy maize starch of improved flavour is prepd.
 by heating waxy maize starch granules to 120-180 deg.C for a time
 between 0.1 and 24 hrs., sufficient to suppress the development of
 woody off-flavours but not enough to cause dextrinisation, and
 then pregelatinising the starch granules.

Waxy maize starch having the usual water content of 8-12% is
 used. Treatment temps. are 170-190, esp. 180 deg.C, and
 treatment time is pref. 15-20 mins. The starch is then
 pregelatinised by normal methods e.g. by drum drying a slurry.
 Heat treatment after pregelatinisation is ineffective. The treated
 starch may opt. be chemically modified e.g. with propylene oxide
 and phosphorus oxychloride.

The starch is useful in sauces, soup mixes and instant
 puddings, etc. as a substitute for chemically modified tapioca
 starch. It does not require chemical modification, and as waxy
 maize starch is readily available, does not suffer from the high
 price and uncertainty of supply associated with tapioca. (18pp)

GENO ★ D13 76141 D/42 ★EP --37-209
 Low calorie foods contg. indigestible poly:ol(s) or polysaccharide
 (s) - with cellulose fibre contg. compsn. to reduce diarrhoeal
 tendencies

GENERAL FOODS CORP 31.03.80-US-135597
(07.10.81) A23l-01/30
 18.03.81 as 301148 (955JB) (E) DE2644621 DE2458650 US4042714
 US3876794 DE2729370 GB2028341 E(AT BE CH DE FR GB IT LI
 LU NL SE)
 Low calorie foodstuffs contg. more than 10 wt.% dry basis of
 edible polysaccharide and/or polyols also contain 1/4-2 times the
 wt. of polyol or polysaccharide of a cellulose fibre contg.
 compsn., which is esp. derived from dehulled soybeans and/or
 citrus albedo, to reduce diarrhoea induced by the polyols or
 polysaccharides.

Inclusion of the cellulose fibre compsn. allows foods to be
 formulated with higher levels of polyols or polysaccharides than
 previously possible. (14pp)

RHON ★ D13 76177 D/42 ★EP --37-300
Compsn. for preparing instant desserts - contains purified whey protein and hydrophilic Xanthomonas colloid

RHONE-POULENC INDUSTRIES 21.03.80-FR-006305

(07.10.81) A23j-03 A23l-01/34

13.03.81 as 400383 (1251BZ) (F) US4089987 FR2365297 FR2399214 FR2452881 EP---7054 FR2119365 E(AT BE CH DE FR GB IT LI LU NL SE)

New expanding food compsn. contains at least whey proteins (A) extd. using 'Spherosil' (RTM) ion exchangers and a hydrophilic Xanthomonas colloid (B), esp. xanthan gum. Pref. the wt. ratio (A):(B) is 5-15%. Prodn. of expanded instant desserts comprises mixing milk or water with a powder contg. this compsn., another colloid (pref. Na alginate and/or a carraghenate); a non-chemically-modified starch (pref. pregelatinised); a food-grade phosphate (pref. tetrasodium or tetrapotassium pyrophosphate), and opt. a sweetener, acidulant or flavouring.

The compsns. contain no fat or emulsifier, are compatible with milk or water at acid pH; produce foams of good organoleptic and nutritive properties which are resistant to syneresis and which can be frozen. (26pp)

ALIF- ★ D13 76207 D/42 ★EP --37-376
Feeding large amts. of fat to animals - e.g. lactating cattle in the form of fine particles with m.pt. above body temp.

ALIFET AG 02.04.80-CH-002600

C03 (07.10.81) A23k-01

17.03.81 as 810102 (1251BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Method for satisfying the energy demands of animals, esp. useful mammals, comprises feeding them with a fat (I) having m.pt. greater than the body temp. of the animal (I) is fed as particles of max. size 50 microns, either in dry form or as an emulsion. (I) is esp. a hydrogenated fat and makes up over 5% of the feed. The feeds themselves contg. (I) are also claimed. They can include mineral salts, vitamin mixts. starch and protein concentrates.

The fine particles of (I) are pref. made by the cold air-spray crystallisation method. A suitable feed compsn. comprises 98% of the (I)-contg. powder plus 2% silicic acid or other anticaking additive.

In this form larger amts. of fat can be fed without disturbance to the animals digestive processes. The particles of (I) pass through the stomach unchanged but are completely digested and resorbed in the small intestine. The method is useful for lactating cows to prevent ketosis. (6pp)

BRES/ ★ D13 76225 D/42 ★FR 2477-381
Installation for natural fermentation of cocoa nibs - in successive perforated tote bins which are mechanically handled throughout

BRESCHARD J M 07.03.80-FR-005848

(D16) (11.09.81) A23g-01/02

07.03.80 as 005848 (448NS)
Installation is for the mechanical handling of cocoa nibs during multi-stage, natural fermentation. The fermentation takes place in the bins of square, horizontal cross section having flat bases with drainage perforations. The installation comprises a succession of parallel, horizontal conveyor tracks with drainage channels extending longitudinally beneath the tracks. Filled bins are advanced intermittently along each track, the contents of each bin being tipped, at the end of one track, into an empty bin at the start of the next track. The emptied bin is recycled to the start of its own track. Prepn. of freshly harvested cocoa nibs ready for dispatch to factories producing cocoa powder and cocoa butter, etc. Comparatively inexpensive mechanisation of previously labour-intensive operations is obtd. The capacity of the installation is easily increased by lengthening the tracks and speeding up the bin pushers. (19pp)

ALFA ★ D13 76264 D/42 ★FR 2477-664
Valve to connect milking machine to milk manifold - and vacuum, can accommodate thermal strains without leaking

ALFA-LAVAL AB 07.03.80-SE-001789

P13 Q66 (11.09.81) A01j-07 F16k-11/08

06.03.81 as 004557 (448NS)

The valve is of the type comprising a valve body clamped to the manifold and a valve ball which is fitted into the box and can be turned relative to valve seat(s). The box now contains two diametrically opposed valve seats, one leading to the milk manifold and the other, pref. via a flexible pipe, to the vacuum line. The ball has an externally accessible socket into which an adaptor can be fitted. An angular movement of adaptor and ball connects the milk manifold valve seat and the vacuum line valve seat, via ball passages, to two adaptor pipes linked respectively to the milk and vacuum passages of a milking machine.

The adaptor can be connected and disconnected single handed. The complete assembly is hygienic and easily cleaned. (5pp)

MAUR- D13 41551 C/24 #GB 1600-1
Cheese vat with cutting and stirring blades - in frame pivoted mounted on shaft rotatable both clockwise and anticlockwise
MAURI BROS & THOMSON 11.05.78-CA-303125 (25.04.78-C 016324)

P13 (14.10.81) *CA1078-319 A01j-25 + B01f-07/32 B01f-15/06 25.04.78 as 016324 (006AS)

Food processing vat has at least one vertical shaft carrying cutting and stirring frame which is pivotal about a vertical axis relative to the reversibly-drivable shaft. In one direction of rotation the frame projects radially from the shaft with blades the frame acting as knives.

In the reverse direction of rotation the frame pivots to lie at an angle to a radius, and the blades act as stirrers. Pref. the angle to which the frame pivots is adjustable. Curd cutter and stirring vat for cheese mfr. (7pp)

SOLL- D13 89900 A/50 = GB 1600-1
Chocolate paste treatment tool - with revolving rhomboid cutter blades for fine air bubble dispersion

SOLLICH SPEZIAL KG 03.06.77-DE-725180

(14.10.81) *DE2725-180 B01f-07 + B01f-03/04

30.03.78 as 012496 (006AS)

Appts. for dispersing air bubbles in cocoa butter, comprises a set of axially-spaced blades rotating in the bore of a feed pipe for cocoa butter. Large air bubbles need not be removed, and are reduced to indiscernable smallness with uniform distribution.

Pref. each blade tapers from a bearing collar to two points 90 deg. apart. (3pp)

SOLL/ D13 77563 B/43 #GB 1600-1
Sugar paste thread extruder - with grooved strand mould piece between large and small roll

SOLLICH H 12.04.78-DE-815804 (28.04.78-GB-016892)

(14.10.81) *DE2815-804 + A23g-07

28.04.78 as 016892 (006AS)

Appts. for shaping confectionery compsns. into strands comprises a hopper form which material is delivered by a coating pair of spaced feed rolls, in the nip of which is mounted a strip-forming insert fitting against the surfaces of the rolls and formed with grooves running circumferentially.

Inserts can easily be exchanged to form differently-sized shaped strips. Pref. the grooves of the insert face a larger internal feed roll of the pair. (6pp)

MAMA/ D13 80474 A/45 = GB 1600-1
Peanut salting in boiling aq. salt soln. - opt. flavoured with ginger or soya spice; and modified process for sweetening peanuts

MAMAHIT J J 28.04.77-ES-458274

(14.10.81) *DE2818-200 A23l-01/36

27.04.78 as 016802 (965WB)

Salting process for peanuts comprises adding peeled peanuts to aq. brine (I) at the b.pt. Pref. (I) contains 20 wt.% salt. Pref. the brine is heated to b.pt. the heat removed and then the peanuts added. Pref. 50 wt.% peanuts are added. Pref. the peanuts are left in the soln. for 100-150 secs. Pref. the peanuts are then removed, strained, and then fried, roasted or toasted. Pref. 25% sugar is added to the brine before the peanuts are added.

The taste of the peanut prods. is uniform, cf. prior art the salt was present only on the surface of the butts, leaving unsalted interiors. The presence of surface salt leads to an unaesthetic appearance and disagreeable touch. (2pp)

SOLL- ★ D13 76332 D/42 ★GB 2077-1
Appts. forming mouldable confection strands - with cooperating grooved rollers intermeshing to separate and compress strands

SOLLICH & CO GMBH K 27.03.80-GB-010249

P62 (14.10.81) B26d-01/24

27.03.80 as 010249 (295AS)

An appts. forms strands from a mouldable confection. It includes a pair of cooperating axially parallel rollers each having a circumferential surface with axially alternating circumferentially complete grooves and ridges.

The ridges and grooves are dimensioned to sealingly cooperate with those of the other roller. The confection is supplied to the nip formed between the rollers so as to be formed into strands in the respective grooves.

Appts. may be used to form strands of chocolate, nougat, caramel, corcand, hard sugar, or mixtures of any of the above including nuts or almonds. (7pp)

OLMA- ★ D13 76374 D/42 ★GB 2077-2
Prepn. of poly:glycerol ester(s) of poly:ricinoleic fatty acids by condensation of ricinoleic acid then esterification, both with an acid catalyst

KOMBOL & MANGALINE

polyglycerol esters (I) of polyricinoleic fatty acid (II) (or castor l acid) are prep'd. as follows: (a) ricinoleic acid (III) (or castor oil fatty acids) is condensed to give (II); then (b) (II) is esterified with polyglycerol to afford (I). Both the condensation and esterification steps are effected in the presence of a Lewis acid catalyst.

Lewis acid catalyst is suitably an Al cpd., FeCl_3 or $\text{Fe}(\text{OAc})_3$ all at 0.01-0.5% by wt.; or an inorganic and/or organic acid (a' 0.01-1% by wt.). Pref. amt. of catalyst is 0.05-0.5% by wt. Condensation is for 120-420, pref. 240 min., and esterification is for 20-180 pref. 150 min.; and both steps are at 180-230 pref. 200-210 deg.C not above 45mm.

Use of the Lewis acid catalyst for both steps affords higher quality prods. in shorter reaction times. (I) are emulsifiers for the food industry. (3pp)

KYOY ★ D13 76796 D/42 ★ J5 6112-901
Starch phosphate mfr. by reacting phosphoric acid epihalohydrin prod. - with starch in the presence of Gp/IA and Gp/IIA hydroxide, is more economic than dry processes

KYORITSU YUKI KOGYO 13.02.80-JP-016135

A11 (05.09.81) A231-01/19 C08b-31/06

13.02.80 as 016135 (140NS)

Prepn. comprises reacting a reaction prod. of phosphoric acid (I) and an epihalohydrin (II) with starch in the presence of an alkali metal hydroxide and/or alkaline earth metal hydroxide. The reaction between (I) and (II) is pref. conducted at 10-80 (40-60) deg.C. The reaction between the reaction prod. and starch is pref. conducted at 28-80 (40-60) deg.C., using at least 5 mol.% per starch glucose unit. The concn. of the starch aq. soln. in the reaction is pref. as high as stirring will allow.

The wet process is more advantageous in terms of mass productivity and economy. (4pp)

MITN ★ D13 76874 D/42 ★ J5 6113-254
Astringency removal and preservation of persimmons - by packing persimmon with oxide or hydroxide of alkali or alkaline earth metal

MITSUBISHI GAS CHEM IND 12.02.80-JP-015749

(07.09.81) A23b-07/14 A231-01/21

12.02.80 as 015749 (5KB)

Method comprises chemically packaging persimmon with oxide or hydroxide of alkali metal or alkaline earth metal either with non-gas-permeable packaging material or in air-tight vessel. The astringency of persimmons is removed, and under proper temp persimmons can be stored for long time while keeping their freshness.

As the preservative, calcium hydroxide is pref used. The preservative is used in an amt of above 0.05 (above 0.1) aq on 1kg of persimmon and in the case of storing persimmon at normal temp for long time it is necessary to use the preservative in an amt of at least 0.1 aq on 1 kg of persimmon. The storing is practiced at -2 to -35 (0-20)deg C. (2pp)

MITN ★ D13 76875 D/42 ★ J5 6113-255
Astringency removal and storing of persimmons - by packing in gas-impermeable material or air tight vessel with deoxidant and alkali(ne earth) metal (hydr)oxide

MITSUBISHI GAS CHEM IND 12.02.80-JP-015748

(07.09.81) A23b-07/14 A231-01/21

12.02.80 as 015748 (5HM)

Method comprises packaging persimmons with (a) deoxidant and (b) (hydr)oxide of alkali(ne earth) metal air-tightly with gas-impermeable packaging material or in air-tight vessel.

Component (b) is pref. $\text{Ca}(\text{H})_2$ and the deoxidant is pref. reducing agent e.g. (bi)sulphite, thiosulphite, oxalate, pyrogallol, glucose, Fe powder, Zn powder, etc. The preservative is packaged in a pouch of gas-permeable material. The component (b) is used in amt. over 0.05 equivs., pref. over 0.1 equivs. per 1 kg of persimmon and when storing persimmons at normal temp. for a long time it is necessary to use at least 1 equiv. per 1 kg of persimmon. Storing is pref. at (-2)-35 deg.C esp. 0-20 deg.C.

The astringency of persimmons can be stored for a long time. (3pp)

SANE ★ D13 76876 D/42 ★ J5 6113-260
Stabilising protein colloid - by adding ionic high molecular cpd. and acidic metaphosphate

SAN EICHEM IND KK 14.02.80-JP-017588

A97 (07.09.81) A23c-09/12 A23c-11/10 A23j-03

14.02.80 as 017588 (5AS)

Process comprises adding (a) ionic high molecular substance (I) such as sodium cellulose glycolate and (b) acidic metaphosphate to the protein colloid. Used for treating protein colloid such as fruit milk drink, fermented milk drink, lactic acid bacteria drink, etc. Prior sepn. problems are avoided.

(I) is pref. sodium cellulose glycolate, sodium starch glycolate, sodium alginate, gum arabic, pectin, locust bean gum, guar

gum, hydroxypropyl guar gum, carrageenan, xanthane gum, etc. (3pp)

MOMI ★ D13 76877 D/42 ★ J5 6113-263
Highly nutritive gelatinous food mfr. - by adding oil and fat to food soln. contg. foaming protein(s), xanthan gum and/or tragacanth gum and gelling agent and emulsifying

MORINAGA & CO LTD 14.02.80-JP-016036

(07.09.81) A23d-05 A231-01/04

14.02.80 as 016036 (5WB)

Method involves adding oil and fat-contg. food in amt. 10-75 pts.wt. oil and fat, to gelatinous food soln. contg. (a) above 0.01 pt.wt. of at least one foaming proteins, xanthan gum and tragacanth gum and (b) above 0.05 pt.wt. gelling agent and emulsifying the mixt. The gelatinous food contains sugar and/or sugar alcohol 25-90 pts.wt. per 100 pts.wt. of the sum of oil and fat and soluble solids.

Pref. oil and fat-contg. food is salad oil, butter, peanut butter, almond paste, cacao mass, butter cream, chocolate, etc. and the foaming protein is soy bean protein, wheat protein, their partial hydrolysate, lactalbumin, egg white, etc.

When (a) is added to the gelatinous food soln., it can be easily emulsified and solidified even when adding large amt. of oil and fat. The obtd. gelatinous food has excellent taste and flavour. (4pp)

TANA ★ D13 76878 D/42 ★ J5 6113-284
Antioxidant for food, cosmetics, etc. - comprises extracts from rosaceae, Leguminosae, Ericaceae or Liliaceae

TANABE SEIYAKU KK 07.02.80-JP-014445

(07.09.81) A231-03/34

07.02.80 as 014445 (5WB)

The antioxidant contains the extract of leaf, stem, flower, fruit, bulb or seed of the plant belonging to Rosaceae, Leguminosae, Ericaceae or Liliaceae as effective ingredient.

Pref. for plant Rosaceae the 'ohshima-zakura' and 'somei-yoshino' can be used, for Leguminosae 'adzuki' bean, black soybean and large broad bean can be used, for Ericaceae 'hirado-tsutsuji' can be used for Liliaceae leek, onion, Welsh onion, garlic and chibou can be used. The plants are extracted with lower alkanol such as ethanol and by removing solvent from the extract solid or oily brown extract can be obtd. The extract is added in amt. 0.005-1% to food, cosmetic, etc.

The extract is safe and shows strong antioxidising property and can be prep'd. inexpensively. (4pp)

SANE ★ D13 76879 D/42 ★ J5 6113-285
Non-toxic preservative soln. - comprises homogeneous soln. of acetic acid, sodium acetate, alcohol and opt. phytic acid

SAN EICHEM IND KK 14.02.80-JP-017587

E19 (07.09.81) A231-03/34

14.02.80 as 017587 (5KB)

Preservative is the homogeneous soln. composed of (a) 100 pts.wt. acetic acid, (b) 5-80 pts.wt. sodium acetate, (c) 5-50 pts.wt. alcohol and opt. (d) 1-10 pts.wt. phytic acid. The preservative suppresses almost all microorganisms including bacteria, yeast, mould etc.

Acetic acid shows antiseptic effect on using together with sodium acetate. Phytic acid helps the antiseptic effect by inhibiting the promoting effect of metals in foods on the growth of microorganisms by its chelating action. As alcohol, ethanol, propyleneglycol, glycerin, sorbitol etc. can be used. The preservative can be applied by immersing food in the soln. for a short time, by mixing it in food material or by spraying the soln. uniformly on food. (3pp)

MATU ★ D13 76887 D/42 ★ J5 6113-298
Determining freshness of foods - by first treating extract with enzymes which react specifically with inosine, inosinic acid and hypoxanthine

MATSUSHITA ELEC IND KK 08.02.80-JP-015258

(D16) (07.09.81) C12q-01/32 G01n-27/30 G01n-33/12

08.02.80 as 015258 (5AS)

Method comprises treating extract obtd. from food with enzymes which react specifically with inosine, inosinic acid and hypoxanthine, determining the change in the concn. of the substances which are related to the enzymic reactions and judging the freshness degree of food from L-value or M-value defined in equations (I) and (II).

(IMP) is the concn. of inosinic acid; (HxR) is the concn. of inosine, and (Hx) is the concn. of hypoxanthine. Pref. the enzyme for IMP is (A) inosinic acid dehydrogenase or (B) 5'-nucleotidephosphorylase. The enzyme for Hx is pref. (C) N-ribosyl-purineribohydrase, (D) inosineribohydrase or (E) purinenucleoside-phosphorylase and the enzyme for Hx is pref. (F) xanthine-oxidase or (G) xanthindehydrogenase. Electrode is pref. prep'd. by fixing (a) at least the enzyme (A), (b) the enzyme (C), (D) and (E) or (c) the enzyme (B), (C), (D) and (E) on or near an

electric collector. (6pp)

$$L = \frac{(HxR) + (Hx)}{(IMP) + (HxR) + (Hx)} \quad (I) \quad M = \frac{(HxR) + (Hx)}{IMP} \quad (II)$$

HASE ★ D13 76985 D/42 ★ J5 6113-729
4-(2-Butenylidene)-3,5,5-trimethyl-2-cyclohexen-1-one prepn. - by
dehydrating 4-(1-hydroxy-2-butenyl)-3,5,5-trimethyl-2-
cyclohexen-1-one

HASEGAWA KK 12.02.80-JP-014804

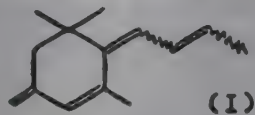
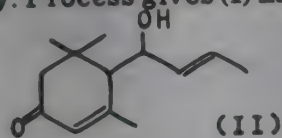
B05 E15 (B05 D21) (07.09.81) C07c-45/66 C07c-49/64

12.02.80 as 014804 (133WB)

Prodn. of 4-(2-butenylidene)-3,5,5-trimethyl-2-cyclohexen-1-one (I)
comprises dehydrating 4-(1-hydroxy-2-butenyl)-3,5,5-trimethyl-2-
cyclohexen-1-one (II).

Dehydration is effected with dehydrating agent in the presence
of tert. amine at -80 to 80 deg.C, pref. 0-30 deg.C, for 0.5-48 hrs.,
pref. 2-4 hrs. Examples of dehydrating agents are phosphorous
oxychloride, methane sulphonyl chloride, p-toluene sulphonyl
chloride, N-methyl-2-fluoro pyridinium p-toluene sulphonate, and
N-methyl-2-chloro pyridinium iodide. Suitable tert. amines are
trimethylamine, triethylamine, tripropylamine,
triisopropylamine, tributylamine, pyridine, and N,N-
dimethylaniline.

(I) are useful in pharmaceuticals, cosmetics, foods, drinks or
dentistry. Process gives (I) in high yield and purity simply. (9pp)



OHIR/ ★ D13 77034 D/42 ★ J8 1039-610
Condensed feedstuff prepn. - by mixing chaff with calcium
cyanide and water, fermenting and mixing with rice bran and
humic acid (J5 16.6.79)

OHIRA K 30.11.77-JP-143543

C03 (14.09.81) A23k-01

30.11.77 as 143543 (22WB)

Chaff is mixed with calcium cyanamide and water, followed by
fermentation, and the resultant is mixed with rice-bran and
humic acid. The resultant culture medium is used for mushroom
cultivation. (J54075375) (2pp)

RYOT- ★ D13 77035 D/42 ★ J8 1039-611
Frying material obtd. from gelatin - foaming agent, starch, and
flour etc. oil and fat (J5 3.8.80)

RYOTO KK 21.08.78-JP-101554

(14.09.81) A23l-01/*

21.08.78 as 101554 (22NS)

A material for making fry, comprises core material contg.
gelatin, foaming agent, starch, flour, etc. coated with oil or fat.
(J55029933) (4pp)

TAKE/ ★ D13 77036 D/42 ★ J8 1039-615
Instant chinese noodles prepn. - by mixing flour with egg yoke,
lecithin etc., adding water, blending with citric or tartaric acid
etc. (J5 14.2.81)

TAKEKOSHI Y 18.06.79-JP-078403

(14.09.81) A23l-01/16

18.06.79 as 078403 (22RP)

Flour is mixed with egg yoke, lecithin, etc. treated with water,
and blended with citric or tartaric acid, shaped and treated with
hot water contg. acetic acid, and the resultant is treated with
alcoholic soln. contg. sugar, followed by freeze-drying.
(J54015657) (3pp)

KUBO/ ★ D13 77040 D/42 ★ J8 1039-866
Soybean curd prepn. - by mixing soybean milk with magnesium
chloride, coagulating it and spraying with heated magnesium
chloride soln. (J5 1.11.79)

KUBOTA S 21.04.78-JP-048253

(16.09.81) A23l-01/20

21.04.78 as 048253 (22AT)

Soybean milk during moving is mixed with magnesium chloride,
then the mixture is poured on a plate to coagulate it and more
heated magnesium chloride soln. is sprayed over the resultant.
(J54140756) (2pp)

BROG- D13 44949 T/29 J8 1040-684
2,4-thiasoyl benzimidazole and sodium ortho phenyl phenol ... to
prevent fruit decay and sporulation

BROGDEX CO (BRO) 10.07.70-US-053996 (28.09.73-JP-108580)

C02 E13 (22.09.81) *US5674-510 + A01n-31/06 A01n-43/78

28.09.73 as 108580 (11H)

10 ppm. of an alkali metal salt, pref Na, of o-phenylphenol
tetrahydrate, expressed as o-phenylphenol.

The compsn is used to prevent the growth of moulds and fungi
and to prevent the sporulation of the moulds and fungi on fruit
partic citrus fruits, such as lemons, peaches and apples. The
appearance and colour of the fruit are not adversely effected and
there is no unpleasant smell as there is with biphenyl treatment
(J50058235) (8pp)

Correction to Week D32

Abstract republished to replace incorrect formula (III).

NAAR D13 19051 U/14 J8 1030-324
Methyl-n(2-methylpentylidene)-anthranilate - odorant for
foodstuffs, drinks

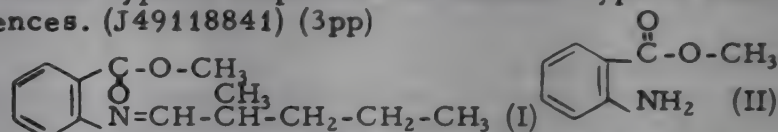
NAARDEN CHEMISCHE FAB 17.09.71-NL-012832

(15.03.73-JP-029548)

E14 (14.07.81) *NL7112-832 A23l-01/22 A61k-07/46

15.03.73 as 029548 (AS)

A cpd. of formula (I) is prepd. by reacting a cpd. (II) with
a cpd. (III): $\text{CH}_3(\text{CH}_2)_2\text{CH}(\text{CH}_3)\text{CHO}$. (I) is used in the prep.
of perfumes and aromatic compsns. (I) can be distilled
to a pure substance giving a strong, long lasting citrus
odour reminiscent of grapefruit and mandarin. It fortifies
the citrus-type or improves the natural-type of fruit
essences. (J49118841) (3pp)



NEZU- ★ D13 77113 D/42 ★ NL 8001-07
Concentrating raw full-cream milk by reverse osmosis - the
releasing pressure so as to avoid fat globule damage and the
lipolysis

NEDE INST ZUIVELOND 22.02.80-NL-001095

(16.09.81) A23c-01

22.02.80 as 001095 (1190RP)

The milk is taken from a storage vessel, pressurised by a high
pressure pump and passed (e.g. by pump) along membrane
modules from which the permeate is removed.

The pressure in the concentrate is thereafter released such that
damage to the fat globules is almost completely avoided
prevent soapiness due to fatty acid formation which results from
lipolysis by lipase activity promoted by such damage. The
pressure release is pref. effected such that the BDI value
remains below 1.0 milli-equiv. per 100 grammes fat. This value
indicates ml. N KOH to neutralise 100 g. fat as per previous
published instructions.

Process is used for concentrating raw full-cream milk, part
at farm, by reverse osmosis. (11pp)

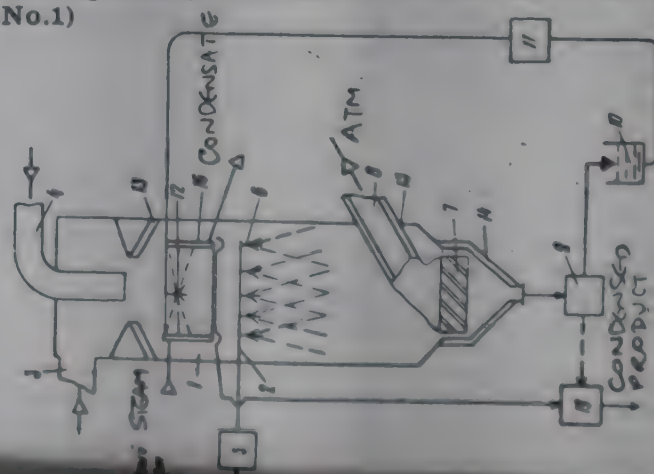
AUHE = ★ D13 77156 D/42 ★ SU -793-1
Apparatus for concentrating milk products - has cylindrical shell
inside main spray chamber to create two heating zones,
increase degree of concn. of product

AS UKR HEAT PHYS IN 04.12.78-SU-691645

(07.01.81) A23c-01/04

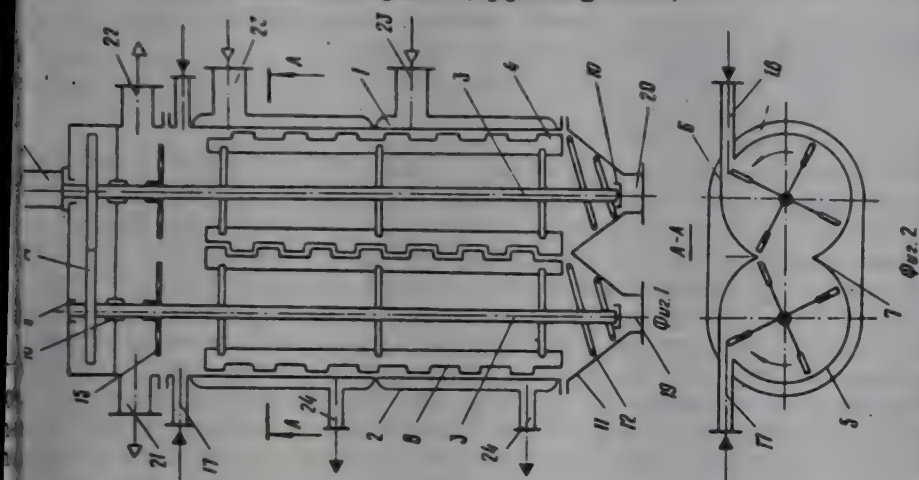
04.12.78 as 691645 (29MI)

Apparatus for concentrating milk products, comprises spray
chamber (1), pipes for admitting and removing the product and
heating agent, with spray-trap (7). The degree of concentration
increased, by fitting a cylindrical shell (16) with intake manifold
and steam jacket located inside the spray chamber (1) so as to
form two heating zones, the volumes of which are in the ratio 1
(3pp Dwg.No.1)



GI= ★ D13 77157 D/42 ★ SU-793-552
 ary filming unit for drying cheese whey - has parallel
 ndrical vertical heating surfaces with tangential liquid feed
 scrapers to distribute it
 MOGIL TECHN INST 28.11.78-SU-689792
 (07.01.81) A23c-03 A23l-03/16
 1.78 as 689792 (29VE)

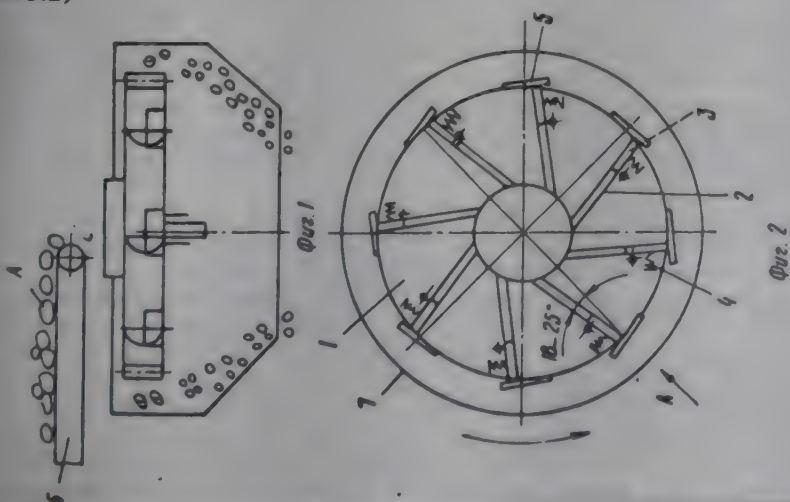
The unit for evapn. drying heat-sensitive liquids having
 reased viscosity, and particularly the continuous prodn. of
 ed cheese whey, has vertical chamber (1) with outer jacket (2),
 s pipes to admit and withdraw the product being processed,
 heat-carrier, and remove the liberated vapours. A rotor, in
 form of a shaft (3) to which scrapers (4) are fastened is
 posed inside the chamber. The scrapers have slots (8) in them.
 Productivity of the unit is increased, as a result of increasing
 heat- and mass-transfer, by providing the chamber with two
 rallel cylindrical surfaces and fitting an extra rotor similar to
 main rotor. Each rotor is disposed relative to one of the
 ndrical surfaces, and the slots in one set of scrapers meshes
 h those on the other scrapers. (3pp Dwg.No.1)



OTA= ★ D13 77158 D/42 ★ SU-793-559
 tter for seed potatoes - has drum with channels in which walls
 e designed for average dia. of tuber so that it rolls towards
 e and it cut in pieces
 POTATO IND RES INST 01.03.79-SU-734635
 (07.01.81) A23n-15
 03.79 as 734635 (29VE)

Device for cutting seed potato tubers, has drum (1) with channels
 ounted on a vertical shaft. Knives are located (5) in the
 annels. The seed potatoes are cut into equal parts, by making
 e channels in the form of profiled walls with a radius of
 rvature becoming less towards their mouths, which are located
 h a definite relationship of their radial position by 18-25 deg.
 e ratio of the length of the profiles to the average radius of the
 bers is 9-17. Each profiled wall has fixed (2) and movable (3)
 ts hinged together and spring loaded.

The potato tubers are fed by a conveyor to the centre of the
 um (1) where, under the effect of centrifugal and Coriolis
 rces, they are pressed against the wall (2); the coefft. of rocking
 ction on the potatoes is less than the coefficient of sliding
 ction. The potatoes move along the wall, reach the exit part (3),
 d roll to the centre of the wall. The tubers are oriented relative
 the knives in relation to the average diameter of the tuber
 lative to the wall length. Some of the tubers are cut into three or
 ore parts, depending on the speed of rotation. The precise
 utting mechanics are explained in depth, and the cutting is
 oked at both theoretically and practically. Bul.1/7.1.81. (3pp
 wg.No.2)



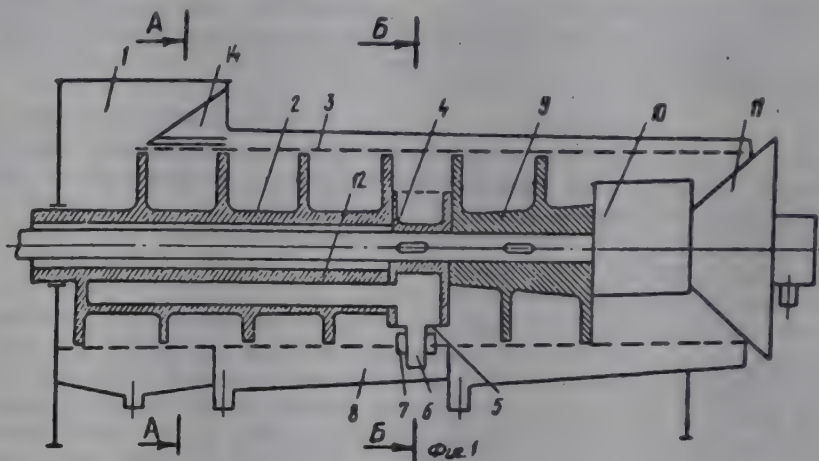
ODFO= ★ D13 77196 D/42 ★ SU-797-909
 Press for fruit juice extrn. - has hollow semi-eccentric with drain
 mesh and perforated wedges around cylinder

ODESS FOOD TECH INS 22.03.79-SU-758753
 P71 (23.01.81) B30b-09/16 C12g-01/02

22.03.79 as 758753 (89VE)

The extrn. of juice from fruit is accelerated and the quality of
 must is improved by using press fitted with the hollow semi-
 eccentric (12) contg. a drain mesh in its zone of maximum radius.
 The pulp from hopper (1) is moved by feed auger (2) through the
 perforated cylinder (3) where the semi-eccentric (12) contributes
 to the generation of radial pressures.

The juice is expelled through perforations of the cylinder (3)
 and through the mesh of the semi-eccentric to collector (8) via
 tube (6) which moves in bearing (7). The juice-denuded pulp is
 conveyed by the flight of auger (2) under the hollow perforated
 wedges (14) set at an acute angle of 14-26 deg. to the tangent of
 auger (2). The resulting increase of pressure prevents backflow.
 Bul.3/23.1.81. (3pp Dwg.No.1)



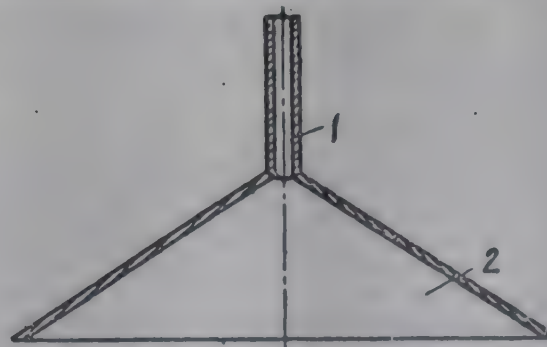
CONF= ★ D13 77436 D/42 ★ SU-798-587
 Sample holder for fats - for melting point determin., consists of
 metal capillary tube connected to conical funnel-shape vessel

CONFECTINERY IND IN 16.03.79-SU-739997
 S03 (23.01.81) G01n-33/02

16.03.79 as 739997 (135MI)

Convenience of preparing fat samples for determination of their
 m.pt., as used in fat, dairy, confectionary and bakery industries,
 and safety of operation, are ensured in this design of the sample
 holder.

It consists of metal (e.g. aluminium) capillary tube (1) 1-1.5
 mm. dia, 20-25 mm. long, connected to conical entrance (2) of 45-
 60 mm. dia. and 100-200 deg. of conicity. The fat sample in the
 funnel is introduced into the capillary by pressing, and the holder
 is placed with the capillary downward into the beaker with water
 at 20-22 deg.C. This is heated at the rate of 2 deg/ min., which is
 changed to 1 deg/min. near the melting temp. of the fat. The
 m.pt. of the sample is determined by the instant of the fat running
 out from the capillary. Bul. 3/23.1.81. (2pp Dwg.No.1)



WAFI- D13 13391 X/08 = SU-799-639
 Sepg. substances coagulated by heat, from aq. media - esp.
 potato processing effluents using ultra filtration under pressure

WAFILIN BV 31.07.74-NL-010323
 (23.01.81) *DE2533-762 C02f-09

30.07.75 as 162161 (WD)

Small quantities of substances capable of being coagulated by
 heat are sepd. from an aq. medium such as the waste water from
 the process for mfg. starch flour from potatoes, by subjecting the
 effluent before heating, to ultrafiltration at a pressure of 5-10
 atm., so as to raise the protein content to a concn. of at least 4%
 and possibly as high as 6%.

The filtration may take place through membranes of a
 synthetic polymer in the form of tubes, and be broken off
 regularly for treatment with a disinfectant such as hypochlorite
 soln. The membranes have a permeation rate of 4 cm³/cm²/h
 and the concentrate obtd. is raised to 100-120 deg.C, possibly by

mixing with superheated steam, to be thereafter cooled to below 80 deg.C. Process frees the effluent from protein practically completely removing all risks of fermentation or other microbial activity. Bul.3/23.1.81 (2pp)

REFR = ★ D13 77452 D/42 ★SU-799-691
Determin. of life of picked fruit - cutting apples in half and using fungus suspension to fill hole in surface, and measuring fungus toxicity after set time

REFRIG IND RES INST 27.11.78-SU-689165
P12 (30.01.81) A01f-25 B01n-38/02

27.11.78 as 689165 (29MI)
Method for determining the life of picked fruits with storage in cold rooms, as used in the selection of new types as well as in refrigeration engineering where the storage of fruit is involved, by taking samples, and studying them according to one of their parameters by which the durability of the fruit to the storage time is characterised. The length of the analysis is reduced, by studying the value of the phytoalexine activity; the duration of the removal from storage is established according to the reduction in this value by 2-3 times compared to the initial value. Bul. 4/30.1.81. (2pp)

DZHO/ ★ D13 77459 D/42 ★SU-799-705
Treating green leaf tea - by putting into trench-like storage container, mixing with water and blowing air through it, after allowing excess water to drain into well

DZHOBADZE G A 07.08.78-SU-654254
(03.02.81) A23f-03

07.08.78 as 654254 (29MI)
Method for storing tea leaves in the green state, prior to converting it into black or green 'baikov' tea, by putting it into a closed container, blowing air through it and keeping. To preserve the tea leaf during daily storage, prior to blowing the air through, water is fed to the closed container at 0-18 deg.C. and then the air is blown through the mixture of tea and water. The water can either be poured in or intensively doused. (2pp)

KOTO/ ★ D13 77460 D/42 ★SU-799-708
Conserves from fruits and vegetables - by initially preparing material and either covering it with sugar or using syrup solution, removing juice and conserving

KOTOUSOVA A M 15.02.79-SU-729553
(03.02.81) A231-01/06

15.02.79 as 729553 (29MI)
Preparation of conserves from fruits and vegetables, by heat treating them in a sugar syrup, removing them and drying. The flavour quality is increased together with the nutritional values, by previously covering the fruit and vegetables with sugar and holding them at a temp. of 1-5 deg.C. for 48-72 hrs., with sepn. of the juice so-formed. Heat treatment is finally carried out at 80-90 deg.C. for 5-12 mins. (2pp)

HORT = ★ D13 77461 D/42 ★SU-799-709
Making quince conserves - by preparing fruit, removing seeds and steeping in citric or tartaric acid soln., before cooking in stages

HORTICULT VINE-GROW 17.04.79-SU-758250
(30.01.81) A231-01/06

17.04.79 as 758250 (29MI)
Method for prodn. of a conserves prod. from quinces, in the food ind., by inspecting the fruit, sorting, washing, sepg. the seeds, holding the fruit in a soln. of citric or tartaric acid, cooking them in stages and holding them between the stages, packing, sterilising, and cooling the prod. A high-quality prod. is obt'd., which easily takes up organisms, by treatment with a 0.2% citric or tartaric acid soln. for three hrs. at room temp. Cooking is done in a soln. of these acids and at a ratio of fruit to soln. of 1:1. After the final stage of holding the fruit during cooking they are loaded into a 70% sugar syrup at 85-90 deg.C. (2pp)

POTA = ★ D13 77462 D/42 ★SU-799-710
Dry potato puree prodn. - by washing potatoes, slicing, inspecting, and cooking in their jackets, with initial separation of puree, and processing of residues

POTATO FOOD PROD(NONB =) 13.03.79-SU-737322
(03.02.81) A231-01/21

13.03.79 as 737322 (29MI)
Method of prodn. of dry potato puree, in the food ind., by washing, cutting, inspection, cooking with their jackets, freezing, defrosting, mincing to produce the puree, removing the portions of the jackets and eyes, and drying. The final prod. quality is increased, by carrying out the mincing and cleaning at the same time by means of centrifuging. The material from this stage is frozen and defrosted with subsequent sepn. into liq. dense solid

the puree and the mixture is dried. (2pp)

PAPC/ ★ D13 77463 D/42 ★SU-799
Juice production from apples - by mincing them to particular particle size, adding juice in particular ratio, treating alternating electric field and separating

PAPCHENKO A YA 12.01.78-SU-571555
(03.02.81) A23n-01

12.01.79 as 571555 (29MI)
Method for obtaining juice from fruit in the food ind. us electroplasmolysis, by mashing up the fruit and moving it al with simultaneous treatment with an alternating elec current. The yield of the juice is increased by mincing the material to a particle size of 0.1-1 cm³ and carrying out electrical treatment when the ratio of the pulp:juice = 1.0:0.5, and the current density is 0.05-0.5 A/cm² at 20-60 deg.C. minced mass is moved along at a speed of 0.1-2 m/sec. (2pp)

KDES = ★ D13 77464 D/42 ★SU-799
Machine for slicing apples and removing cores - has feeders truncated orienting cones feeding combination knives, platform having cells to arrange apples

KAZADESBUR 02.11.78-SU-682137
(03.02.81) A23n-04/12

02.11.78 as 682137 (29MI)
Machine for cutting apples into slices and cutting out the co as in the preserves and food inds., has loader, fixing attachm made as several truncated cones, and cutting attachment fixed combination knives matching the number of co Productivity is increased, as a result of uniformly feeding apples for cutting, by fitting a platform with cells for supply the apples in portions. The bottom of the platform is mad spring-loaded slider door, underneath which is a split attachment capable of moving in the horizontal plane. splitter comprises two plates connected by spring-loaded r where the upper plate has supports with holes and pins mou so that they can move vertically with a reciprocating mo while the lower plate has holes to let the apples through. (8pp)

DAUG = ★ D13 77515 D/42 ★SU-799
Washing out vacuum evaporators for milk processing - with recirculating caustic soda and nitric acid aq. solns. at elev pressure

DAUGAVPILS DAIRY 06.05.76-SU-358652
P43 (31.01.81) B08b-03/08 B08b-09/08 C23g-05

06.05.76 as 358652 (831VE)
Film-type vacuum evaporators for milk processing are wa with circulating caustic soda and HNO₃ solns. at elevated te Efficiency is increased by closed- circuit circulation of ca soda at 100-110 deg.C.

Typically, a triple vacuum evaporator is rinsed out with w then fed with a 3% caustic soda soln. as a descending film he to 100-110 deg.C. A saturated vapour static pressure of 1.2-1.5 atmospheres is generated, and the washing soln. circulate 20-40 min. The system is rinsed out with water, then washed a circulating 1% soln. of HNO₃ for about 30 min. at 70 deg.C. 4/30.1.81. (1pp)

PURD ★ D13 77551 D/42 ★US 429
Prodn. of mature asexual cacao embryos - by non-agriculture vitro culture of immature zygotic embryos

PURDUE RESEARCH FOUNDATI 20.03.80-US-181883
P13 (29.09.81) A01g-01 A01g-07

20.03.80 as 181883 (478MR)
Non-agricultural prepn. of cacao embryos (I) is as follow immature zygotic (I) in a basal medium are treated with a g enhancer (II) to initiate asexual embryos; (b) the embryos proliferated by addn. of low sugar concns. to the basal me after removal of (II); (c) the embryos are grown in the me with aeration and under low sugar conditions until optimum is reached; (d) growth is continued with aeration but with sugar concns. added to the basal medium; and (e) (I) harvested.

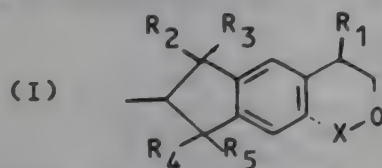
In vitro method initiates, proliferates, grows and mat asexual embryos of cacao to afford metabolic prods. from cotyledons such as cocoa butter and cocoa solids.

The initiating basal medium is pref. supplemented with a (e.g. 0.8-80 micro M indole-3-acetic acid), deproteinised co H₂O (100 mg/l.) and a simple sugar (e.g. sucrose at 30 g/l. semi-solid agar prepd. by addn. of 10 g. of agar/l. proliferating medium is pref. the basal medium plus a sucrose/l. in solid (10 g. agar/l.) or liq. medium, but auxil coconut H₂O are removed. The growth medium is pref. the medium with a sugar (sucrose or glucose, etc.) at 15-150 g/l. maturation medium consists of growth medium

HUNT/ ★ D13 77560 D/42 ★ US 4291-619
 Fruit juice extrn. press with auger - in cylindrical screen having circular pressure loaded discharge door
HUNT A J 17.10.79-US-085492
P71 (29.09.81) B30b-09/12
 17.10.79 as 085492 (295)
 A screw press comprises a rotating auger within a cylindrical screen. This screen includes perforations to drain liq. from a product introduced into the appts. via a hopper. The auger terminates short of the downstream end of the appts. to create a compression chamber into which the prod. is continuously introduced by the auger. A circular door closes the downstream end of the compression chamber and is normally closed to provide a back pressure within the chamber. Hydraulic rams hold the door against the chamber these yield when the working pressure of the chamber is exceeded and allow some of the cake to be discharged.
 The appts. extracts juice from fruits or vegetables. The appts. can accept drained vegetables and does not need the addition of paper straw to build up a cake. (10pp)

KIME/ ★ D13 77618 D/42 ★ US 4292-051
 Centrifugal fluid separator - has centrifugal chamber with rotatable shaft having outwardly radiating centrifugal vanes
KIME W R 21.02.80-US-123229 (21.01.80-US-113860)
J01 (D15) (29.09.81) B01d-59/20
 21.02.80 as 123229 (+ 10.1.80, 21.1.80-US-111135, 113860) (67JB)
 Centrifugal fluid separator for sepg. fluid contg. heavy light fractions into a first portion having an increased concn. of the heavier fraction and a second portion having an increased concn. of the lighter fraction is described. It comprises a centrifugal chamber having a rotatable shaft with outwardly radiating centrifugal vanes. Rotation of the shaft urges the heavier fraction peripherally and the lighter fraction centrally. At the discharge end of the chamber the first portion is discharged through a peripherally located outlet and the second portion through a centrally located outlet.
 Used for sepg. air contg. CH₄ or dirt particles, water contg. oil or dirt and milk contg. cream. Rotation of a housing, e.g. a drum of container is avoided. This makes the appts. easy to balance and allows high rotational speeds to be attained. (11pp)

NFL ★ D13 77685 D/42 ★ US 4292-193
 Enhancing aroma or detergent compsns. - with indane-alkanol or tricyclic isochroman derivs.
INT FLAVORS & FRAGR INC 13.11.80-US-206650 (03.08.79-US-063374)
E13 (29.09.81) C11d-03/50 C11d-09/44
 13.11.80 as 206650 Div.ex. 4250200 (478HM)
 The aroma of a solid or liq. anionic, cationic or nonionic detergent is augmented or enhanced by addn. of one or indane- alkanols or tricyclic isochromones (where X is H, Me or CH₂; dotted line is C-C single bond (SB) when X is CH₂ or no bond when X is H or Me; R₁ is H or Me; R₂R₃R₄R₅ are H, Me or i-Pr provided R₂R₃ are Me when R₄ is H and R₅ is i-Pr, or R₄R₅ are Me when R₂ is H and R₃ is i-Pr. This is a division of US4292193. (26pp)



COUL/ ★ D13 77749 D/42 ★ US 4292-328
 Thermophilic aerobic digestion process for faecal matter etc. - for prods. useful as animal feeds, aminoacid sources, vitamin/B12 prodn. etc.
COULTHARD T L 18.12.79-US-104763 (26.04.76-US-679994)
C03 (29.09.81) A23k-01/14
 18.12.79 as 104763 (+ 21.8.78-US-935141) (1248MR)
 Digestion of aq. mixt. comprising animal faecal matter, lignocellulose or vegetable matter by thermophilic bacterial micro-organisms under aerobic conditions is effected by first placing the mixt. in a digester insulated against heat loss. The mixt. is vigorously agitated while air is introduced to maintain over 0.2 mg/l. of dissolved oxygen. The temp. rises to at least 55 deg.C without appln. of external heat.
 The mixt. is maintained at over 55 deg.C by introducing air at a rate to raise the dissolved oxygen to over 1 mg/l.
 The procedure is self-generating and self-sustaining without application of external heat. The prods. are useful as animal feeds, for prodn. of vitamin B12, for fixing atmospheric N₂ to produce single cell proteins, useful for prodn. of amino acids, for prodn. of antibiotics or enzymes, etc.
 Pref. air is introduced at a rate sufficient to maintain 1-4.5 mg/l. dissolved oxygen after the mixt. reaches 55 deg.C esp. at 2-3 mg/l. (15pp)

LOTT D13 42693 B/23 #US 4292-329
 Chewing gum compsn. contg. liq. centre - prepd. by adding emulsifier and pref. solvent to aromatised liq. filling
LOTTE K K 22.11.77-JP-140418 (06.02.78-US-875205)
(29.09.81) *DE2850-989 A23g-03/30
 09.02.79 as 010893 C.1.p 4157402 (931TM)
 Chewing gum contg. a gum base and a flavoured, liq. centre fill is made by adding a natural emulsifier in amt. 0.01-0.50 wt. % to the centre fill, and incorporating the fill and emulsifier into the base.
 The emulsifier used is lecithin, alginic acid, gelatin and/or natural gums. Pref. a polyvalent alcohol solvent is added to the centre fill and emulsifier mixt. and the resultant homogenised.
 The process improves the flavour-retaining capacity of the prod. Emulsifier addn. causes the flavour component to be coated and dispersed in and prevented from separating from the syrup portion. The component remains in the flavoured liq. stably for a long time and confers an enriched freshness, flavouring power and strengthened preservation. (3pp)

OSTR/ D13 90092 Y/51 = US 4292-331
 Silaging process for plants for animal feeds - by adding to lactic fermentation a factor for breaking down higher glucides
OSTRE L (DERA) 18.05.77-FR-015417 (17.08.76-FR-024943)
(29.09.81) *BE-857-795 A23k-03 + A23b-07/10
 09.07.79 as 055545 (+ 15.8.77-US-824448) (924TM)
 In the ensilaging of vegetables by lactic acidification by addn. of sufficient bacteria causing lactic fermentation to raise the pH to below 4.5, the improvement comprises further adding to the vegetables an agent capable of degrading higher carbohydrates into fermentable sugars usable by the lactic bacteria. The agent is Enterobacteriaceae bacteria capable of fermenting starch but not capable of fermenting maltose.
 Pref. agent is capable of fermenting glucose, Voges-Proskaver reagent and oxydase while having no effect on inositol sorbitol, citrate and urea and not resulting in the formation of H₂S. The bacteria compsn. may comprise a mixt. of fungic amylases, amylases of bacterial origin, amyloglucosidase and hemicellulase.
 The vegetables are rendered more appetising. (8pp)

STBR D13 40215 D/23 = US 4292-333
 Low-fat liq. spreads - comprising water-in-oil emulsion contg. stabiliser and lipophilic and hydrophilic emulsifiers
STANDARD BRANDS INC 19.11.79-US-095645
A97 (29.09.81) *BE-886-241 A23d-03 A23d-05
 19.11.79 as 095645 (924TM)
 Low-fat, butter-flavoured, liq. spread comprises butter flavour; a dispersed phase comprising 5-40wt.% (based on wt. of spread) of a fat having SF1 profile: 50 deg.F 0-35%; 70 deg.F 0-25%; 92 deg.F less than 8%; a continuous aq. phase including a stabiliser; and an emulsifier system consisting of a combination of a lipophilic emulsifier and a hydrophilic emulsifier.
 The emulsifier system is present in an amt. of 0.1-4% (based on total wt. of spread). Each of the emulsifiers is present at a level of at least 0.025%. The relative and total amts. of the emulsifiers and stabiliser are effective to provide a stable, liq. emulsion at 40 deg.F.
 The prod. realistically simulates the flavour, texture, mouthfeel, appearance and stability of commercial liq. margarine, yet reduces the caloric density by 50-95%. (9pp)

KIKK ★ D13 77752 D/42 ★ US 4292-334
 Puffing feathers or animal fur - by heating under elevated pressure in steam followed by rapid pressure redn.
KIKKOMAN SHOYU 21.01.80-US-113977 (05.10.78-US-948797)
C03 (C04) (29.09.81) A23l-01/18
 21.01.80 as 113977 (295HM)
 Animal feathers or fur are treated by feeding them in an uncompressed state into a pressure-resistant vessel. The vessel is heated for 2 to 10 mins. under an elevated pressure in the presence of satd. steam of 4 to 8 Kg/sq. cm cm G or a superheated steam of 4 to 6 Kg/sq. cm G at a temp. of 180 to 240 deg. C. The feathers or fur are then rapidly discharged into an atmos. of lower pressure to instantaneously puff-explode them.
 The method utilises fowl or duck feathers or wool to produce a feed for domestic animals or a nitrogen source fertiliser. Compared with conventional methods the processing time is reduced and a uniform treatment provides a prod. with improved digestibility or enzyme decompn. (4pp)

JONS/ D13 73110 C/41 = US 4292-335
 Sepg. coconut kernel into fibres, oil and cellular liq. - by controlled temp. cutting into particles, centrifuging and filtering
(SW 21.7.80)
JONSSON O 21.12.78-SE-013155
(29.09.81) *FR2444-709 A23l-01/36
 11.12.79 as 102514 (931TM)
 The fruit flesh of nuts or kernels is sepd. into a fibre mass, oil and

cell liq. by tempering at 0-70 deg.C with the oil in liq. form, and without the proteins coagulating, then cutting the flesh to comminute it whilst simultaneously centrifuging to divide up the fibre mass and liq. mixt. contg. oil and cell liq. Natural emulsions are then broken down, and the fibre mass filtered to separate it from the liq. mixt.

Pref. the fruit flesh is added in the form of the flesh from fresh coconuts, and the cutting is effected using a rotary disc contg. more than 1 cutting means. During the centrifugation, coconut water, -cell liq., -oil, tempered water in opt. mixt. are poured over the fibre mass being sepd. (3pp)

TATL D13 60901 C/35 = US 4292-336
Sweetening compsn. contg. peptide sweetener - with gelatin to promote heat stability for use in hot food and beverages
TALRES DEV NA NV 06.02.79-GB-004165
B05 (29.09.81) *EP-14-554 A231-01/23
01.02.80 as 117445 (982PW)

A sweetening compsn. comprises gelatin intimately mixed with a protein sweetener selected from monellin and thaumalin. The wt. ratio of gelatin to protein sweetener is 1:1 to less than 100:1 (pref. 1:1 to 5:1). Pref. the gelatin is type A gelatin and has a Bloom strength of greater than 200. Compsn. contains an acid selected from citric, malic, fumaric and mucic acids.

Compsn. is used in the form of powders, tablets, granules, dragees, semi-solids and liquids. The high Bloom strength of the gelatin improves the heat stability effect. (5pp)

STOR- D13 71779 C/41 = US 4292-337
Non-cariogenic confectionery mass e.g. for bonbon prodn. - contg. xylitol, sorbitol, and a swellable substance e.g. carrageenate to suppress xylitol crystallisation
STORCK A KG 29.03.79-DE-912411
A97 (29.09.81) *DE2912-411 A23g-03
25.03.80 as 133781 (931TM)

Chewy, sugar-free confectionery material comprises 20-50 wt. % of a sugar-free swelling agent, 20-35 wt. % xylitol 0.5-3 wt. water and 0.1-5 wt. % of aromatic substances, flavouring, acids or dyes as additives, and sorbitol to balance.

The swelling agent comprises a carrageenate, a pectin, agar, an alginate, carob bean flour, tragacanth, methyl cellulose, carboxymethylcellulose, gelatine, gum arabic or low-sugar malto-dextrin.

The material is esp. prepd. by dissolving the xylitol, sorbitol and swelling agent in water, and boiling the soln. to a residual

water content of 0.5-3 wt. %, after which the desired additives are added or produced in the material. (2pp)

UNIL D13 47953 T/30 = US 4292-334
Edible fat - for use in sweetened goods, consisting of transesterified mixt of fats
LEVER BROTHERS CO 06.01.71-GB-000714
(29.09.81) *NL7200-156 A23d-03/02

13.09.79 as 075342 Div.ex 4214012 (+ 21.12.71, 4.9.73, 4.11.77-US 2105503, 393865, 848675) (931AS)

Confectioners' butter is produced by co-randomising a lauric with a non-lauric component to produce an ester interchanged co-randomised fat of iodine value 10-25, a slip m.pt. of 28-40 deg.C and a dilatation drop of 500 or more over the last 10 deg.C less than that m.pt.

The blend comprises 88 wt. % or more of 10-18C fatty acid contg. 15 Wt. % or less of stearic acid, of 80-50 wt. % of lauric acid and 20-50 wt. % of edible non-lauric fats such that the sum of the palmitic and stearic acid content is 45 wt. %. The compsn. prepd. is esp. used for biscuit cream fillings. (6pp)

BOEH D13 19762 A/11 = US 4292-335
Stable buffered aq. food acid solns. - prepd. by partial neutralising a mixt. of lactic acid and citric acid etc. with potassium ions

BOEHRINGER INGELHEIM 07.01.77-DE-700568
E17 (29.09.81) *DS2700-568 A231-01/22

28.09.79 as 080057 (+ 6.1.78-US-867483) (931AS)

A stable, aq. soln. of a mixt. of premixed, edible organic acid comprises lactic acid and soluble edible organic acids. The soln. has a dry substance content of more than 55 wt. %, contg. a mixt. of lactic acid and 5-25 wt. % of the organic acids citric acid, tartaric acid, malic acid and gluconic acid in aq. soln. 8-20% the acid equivs. of the acids are neutralised by potassium ions a mixt. mainly contg. them.

The compsn. is used esp. as food acidulants in the prepn. sweets with a sour taste, jelly fruit, marshmallows, jelly bean chocolate candy fillings and acidulated suckers. (3pp)

See Also

D15 GB 1600162 D15 J8 1040604 D16 GB 207324
D18 EP--37163 D23 US 4292447

D14: FOODSTUFF MACHINERY

DCAF ★ D14 75743 D/42 ★ BE-888-236
Machine to remould ice lolly etc. on stick - in split mould using pressure only without heat

DCA FOODS INDS INC 14.10.80-US-196931 (02.04.80-US-136706)
(01.10.81) A23g
01.04.81 as 888236 (448KB)

The lolly is compressed between two halves of a split mould which are brought together at a pressure sufficient to reform the lolly to the shape of the mould cavity. This is done without any significant melting and refreezing of the lolly surface and with the heart of the lolly at a temp. between -23 deg.C and -12 deg.C.

The mould cavity is virtually filled by the lolly and the mould splits on the median plane of the lolly. The lolly is pref. frozen around the stick which extends into the lolly to a depth of at least 6.35 cm. The remoulding machine is pref. added to a conventional lolly moulding machine which extracts ice lollies on sticks from single piece mould blocks. (48pp)

SCHI- ★ D14 75858 D/42 ★ DE 3010-603
Height-adjusting for slicing machine - by tiers of grooves in side plates for roller support frame
SCHINDLER & WAGNER 20.03.80-DE-010603
P62 (08.10.81) B26d-07/08
20.03.80 as 010603 (39KB)

A rotary slicing machine for sausage and hard cheese has a support with carrier pins at both ends. The side carrier plates have several parallel grooves so that the support for the material to be sliced can be adjusted in height. Lead-in sections of the grooves at right angles to the carrier plate top facilitates the height adjustment.

This enables even unskilled personnel to adjust the height of cut to different cross-sectional dimensions of the sausage or cheese, without needing any adjusting operations. (20pp)

BRUC- ★ D14 75863 D/42 ★ DE 3012-4
Food dispenser esp. for soft ice creams - has large storage tank, motor driven mixer and dispensing valve all in one transportable housing

BRUCKNER-WERKE KG 28.03.80-DE-012013
(08.10.81) A23g-09/16
28.03.80 as 012113 (236WB)

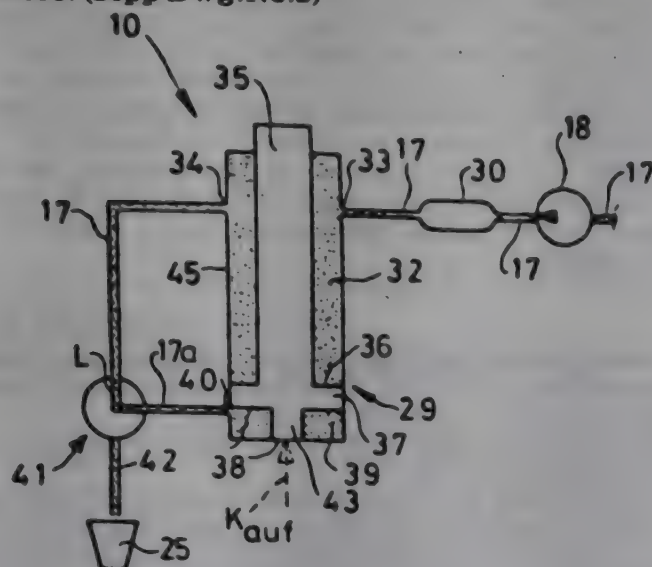
A controllable food dispenser, esp. for portions of soft (aerated) ice-cream, also other creamy substances, comprises, all in one housing a large storage tank, a mixing paddle in the tank with drive motor for mixing powder and liq., a discharge pipe and control (dispensing) valve and a portions control unit for valve, operated by external push-button, foot control or the like. The whole unit is light, compact and transportable.

Used esp. for the dispensing of bulky foaming substances such as aerated ice-cream. The substance is held in stock ready mixed and aerated and kept stirred in sufficient quantities for a large number of portions, which makes for easy dispensing. The tank can be refilled either with ready mixed food or with ingredients, to be mixed in the tank. (16pp)

MULL- ★ D14 75944 D/42 ★ DE 3012-4
Metering device for margarine or ice cream - with differential piston cylinder and three-way valve in by-pass
HAMBA-MASCH MULLER 03.04.80-DE-012978
S02 (08.10.81) G01f-11/04
03.04.80 as 012978 (39AS)

Metering device for viscous or pasty food, e.g. dairy or fruit products, such as ice cream or margarine, consists of a cylinder with a piston which has rod ends of different dia. at both ends, by-pass, connecting the two different cylinder chambers. Includes a three-way valve with a connection to the receiving vessel. The prod. is introduced into the chamber with the smallest annular piston area.

erling device. (26pp Dwg.No.2)



OBA- D14 72303 A/40 = GB 1600-082
and operated high speed food mixer - has baffle blade with
counterbalanced support arm and handle

HOBART CORP 06.06.77-US-803461 (06.06.77-US-803438)
+ P12 P28 P41 (14.10.81) *US4101-977 B01f-07/16
3.05.78 as 021623 (+ 6.6.77-US-803460) (006AS)

Food mixing appts. comprises a bowl with a bottom-entry drive
shaft for rotating mixing blades. The bowl lid is transparent, and
carries an internal rotatable flexible lid scraper, so that the lid
can be cleaned for visual inspection of the bowl contents during
mixing.

Pref. the lid scraper is mounted on a baffle blade which is
rotatable along and around the bowl inner surface to scraper off
food and return it to the blades, which the lid scraper also does.
(4pp)

OBA- D14 92971 A/51 = GB 1600-083
Foodstuff mixing bowl and integral motor - pivoted about offset
axis to discharge mixed food product

HOBART CORP 06.06.77-US-803456
+ P28 (14.10.81) *US4106-118 B01f-07/16 B01f-15/02
3.05.78 as 021624 (006AS)

Food mixing appts. comprises a bowl with a bottom-entry drive
shaft carrying mixing blades and extending from an external
motor, the bowl being tiltable between upright and pouring
positions about a horizontal axis located between the bowl
centreline and the bowl edge towards which tilting occurs, for
improved pouring action.

A bowl counterbalance spring acts upon the bowl pivot and
ref. comprises a crank and yoke actuating a spring-
compressing rod. (11pp)

OBA- D14 72304 A/40 = GB 1600-084
Locking food mixer blades to drive shaft - by interference fit
between cap and eccentric space between shaft and blade mount

HOBART CORP 06.06.77-US-803457
+ P28 P41 Q63 (14.10.81) *US4101-978 B01f-07/16
3.05.78 as 021625 (006AS)

Food mixing appts. comprises a bowl with a motor-driven
bottom-entry shaft carrying mixing blades secured to the shaft
by a quick-release mechanism in the form of interengaging
eccentric wedge surfaces on the shaft, a blade mount, and the
interior of a cap which is easily twisted on and off.

Pref. the surfaces are located so that cap can be twisted in
either direction when being applied to lock the wedge surfaces,
and the bowl lid when closed is close enough to the cap to stop it
coming off if loose. (14pp)

OBA- D14 06998 A/37 = GB 1600-085
Automatic food mixer with lid - having a mixing baffle blade with
hollow drive shaft; permitting liq. introduction during operation

HOBART CORP 06.06.77-US-803462
+ P28 (14.10.81) *US4100-615 B01f-07/16 + B01f-15/02
3.05.78 as 021626 (006AS)

Food mixing appts. comprises a bowl with a motor-driven
bottom-entry shaft carrying mixing blades, and a lid which
carries a rotatable baffle for scraping food from the bowl inner
wall and returning it to the blades.

The baffle is carried by a hollow drive shaft which extends
through the lid, and is open at both ends as a duct for feeding in
liquids directly above the blades. Pref. a cap on the blades shaft
of larger dia. than the duct, and operates to disperse ingoing
liquids. (11pp)

MACH- ★

D14

77109 D/42 ★ NL 8001-007

Deep-frying tank holds heated oil floating on cooled water - in
which solids detaching from food collect for easy removal
without burning

MACH MENZING ZONEN 19.02.80-NL-001007

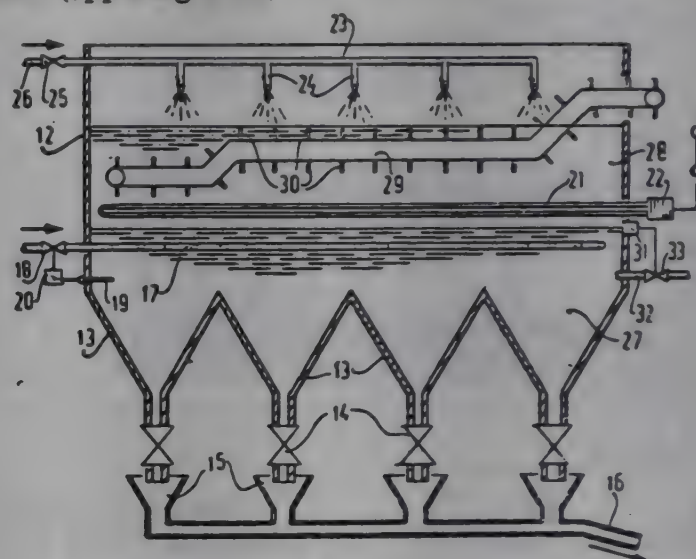
X27 P28 (16.09.81) A21b-05/08 A47j-37/12

19.02.80 as 001007 (1190HM)

The deep-frying unit comprises an open tank (12) which contains
the oil or fat (28) and a heating element (21) to bring the oil to the
required temperature. A cooling element (17) is arranged at a
level below the heating element (in water (27) on which the oil
layer in the tank floats). Small pieces, which detach themselves
from the articles being fried, collect in the cooled water layer and
can be removed therefrom without being burnt in the hot oil.

The cooling element preferably has openings which allow the
said pieces to sink down. The bottom of the tank may be provided
with one or more funnel-shaped closable (14) outlets (13). Water
spray nozzles (24) may be arranged above the oil.

Deep drying whilst preventing oil deterioration due to burning
of small pieces detaching from articles being fried. The
arrangement eliminates the need for expensive oil filtration
equipment or frequent oil changes and simplifies the oil cleaning
procedure. (9pp Dwg.No.2)


FOOD= ★

D14

77453 D/42 ★ SU-799-694

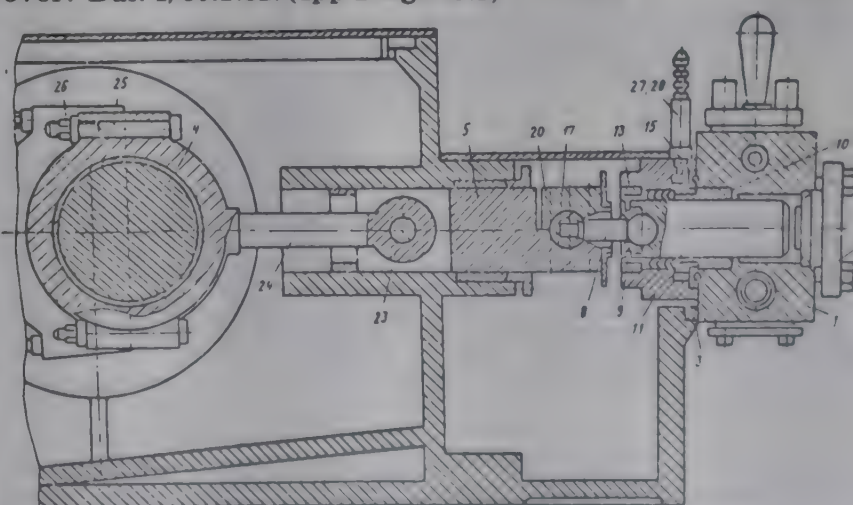
Homogeniser, e.g. for milk - has head with plunger unit and slider
with connecting rod, connection between rod and slider via
hemispherical links and packing

FOODEQUIP RESEXPE 05.03.79-SU-734677

P13 (30.01.81) A01j-11/16 B01f-05/06

05.03.79 as 734677 (29MI)

Homogeniser for liquid products, used in the food, meat and
dairy, and other inds., has head (1), plunger pump unit (2), drive
mechanism (4) for the slider (5) and rod (3), with spherical
depression interacting with a hemisphere fastened to one end of
the rod. There is a packing collar and the homogeniser has a
cover. The reliability with which the rod (3) connects to the slider
(5) is increased by fitting an extra hemisphere on the other end of
the rod and linked to the slider, provided with a lid by means of
spherical hollows. The packing is located in the homogeniser
cover. Bul. 4/30.1.81. (4pp Dwg.No.1)



AGRI-★ D14 77458 D/42 ★SU-799-704
Treating liquids in flowing thin layer with IR, UV radiation - as it moves spirally down the inner walls of a vertical cylinder containing the lamps

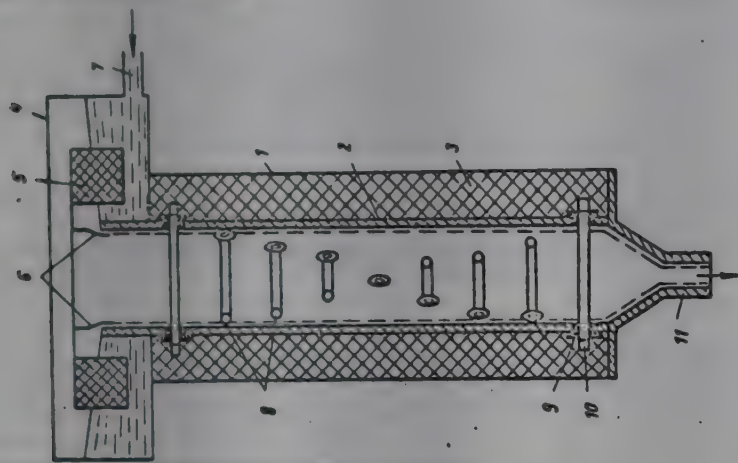
AGRIC ELECTRIF REG 06.04.79-SU-753262
C03 X25 (30.01.81) A23c-03/07 A23l-03/28

06.04.79 as 753262 (29MI)

Equipment for treating liqs. in a thin layer by radiation, e.g. infrared, ultraviolet, etc., such as in the food and animal feedstuffs prodn., has working cylinder (1) placed vertically, inside which is a source of radiation (8), pipe (7) to admit the liq. to a reception chamber (4), plus a pipe to let the liquid run away (11).

Quality is improved as a result of guaranteeing mixing of the liq. as it moves spirally down the internal wall of the cylinder, as well as increasing the operational reliability, by establishing the inlet pipe (7) for the liq. tangentially to the wall of the chamber (4).

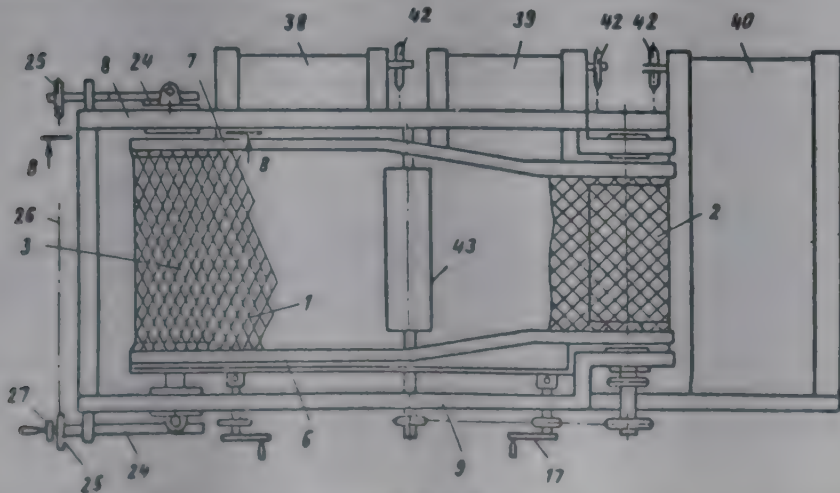
The wall of the cylinder (2) has holes arranged spirally, the direction of which coincides with the direction in which the liquid is swirling. The radiation sources (8) comprise several horizontal lamps one under the other around the diameter of the cylinder, in such a way that their bases fit into the holes in the cylinder wall. Bul.4/30.1.81. (3pp Dwg.No.1)



NONB-★ D14 77465 D/42 ★SU-799-713
Fruit calibrating equipment - has tensioning drums supporting mesh conveyor with eccentric drum to agitate middle
NON-BLACK-EARTH AGR 29.12.78-SU-705365
(03.02.81) A23n-15

29.12.78 as 705365 Add to 542506 (29MI)

Equipment for calibrating fruits and vegetables during sorting, according to Parent Cert. No. 542506, which consisted of a traction unit, made as two endless shaped guides and calibration strip. This was an elastic mesh (1) which was fixed into the guides by regulatable supports, to alter the size of the holes in the mesh. The size of the calibrating holes for each fraction are regulated independently of one another, by making the guides (6,7) of the drive and driven drums (2,3) telescopic. One of the guides (6) has mechanism (in the form of four screws) which moves it transversely. It also has ball-bearings and hinged nuts serving to position the guards at an angle. (5pp Dwg.No.2)



ANTU-★ D14 77559 D/42 ★US 4291-617
Pressure injection steamer for heating food items - with hollow injection needles separated from steam generation chamber

ANTUNES A J & CO 28.08.79-US-070484 (24.04.78-US-899164)
P28 (29.09.81) A23l-03/16 A47j-27/04

28.08.79 as 070484 (295BZ)

An injection steamer heats food items. It includes a steam generating chamber with a lower housing and an upper cover plate. Water is introduced through an inlet formed of a material

mounted in fluid communication with the steam chamber supplying the pressurised steam to the interior of a food item. A baffle plate is mounted between the water inlet and the need. The upper cover is secured to the lower housing by a bayonet fastening with a cam-operated safety interlock to prevent steam generation when the cover is not securely in position.

The steam injection orifices in the needles do not tend to become clogged with scale even if the device is used in a hard water area as the steam generation takes place in a separate chamber. (5pp)

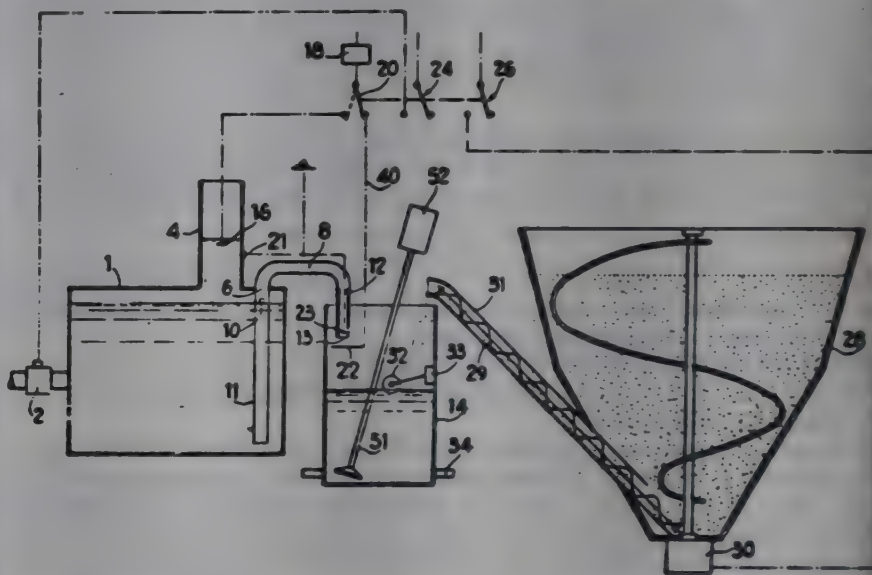
LEGR/ D14 72054 C/41 = US 4291
Mixing plant for liq. feed for test fed mammals - automatic siphons measured vol. of liq. from supply tank to mixing vessel

LEGRAIN M A J 14.03.79-FR-006463

S02 T06 P14 Q35 + Q39 (29.09.81) *EP--16-685 A01k-05 A01k
12.03.80 as 129770 (1358JB)

A unit for metering liq. to mix with powdered milk for feeding young animals includes a liq. source connected via a valve (2) to a reservoir (1) with an upward extension formed by a calibrated tube (4) in which liq. level can be checked, and a syphon (8) with short leg (6) in the reservoir and long leg (12) into a mixing container.

A syphon flow detector (22) and tube level sensor (16) connected to open the valve automatically when in the absence of flow through the syphon the tube level falls below a min. The detector and sensor are pref. in the electrical control circuit of the valve and the tube and syphon are earthed. (7pp)



MERI-★ D14 77675 D/42 ★US 4291
Filter sock for milk pipeline system - comprises folded and bonded polyester fibre sheet with ultrasonic edge welds

MERIDIAN INDS INC 31.03.80-US-135226

A88 (29.09.81) B01d-29/30

31.03.80 as 135226 (1358RP)

The sock comprises a longitudinally folded sheet of randomly oriented spun-bonded synthetic fibres, pref. polyester, with weight of 1.5-4.0 oz/yd². The overlying sheet layers are joined by an ultrasonic weld along the longitudinal edges and a second weld along a pair of end edges.

The welds comprise a series of alternating depressions and projections to increase weld strength. The fabric provides uniform filtering characteristics and has a smooth surface so that the sock can be installed on a gasket without the need for moistening. The ultrasonic bonds reduce bulk so that more socks can be packed in a box. (3pp)

MCHA/★ D14 77751 D/42 ★US 4291
Expandable sealed pleated container of popcorn - is opened after popping in microwave oven to act as serving tray

MCHAM D E 19.01.78-US-870838 (10.05.78-US-684719)

Q34 (29.09.81) B65d-65/28 B65d-81/34

19.01.78 as 870838 (1358WB)

An openable after popping in a microwave oven to act as a serving tray comprises a flexible bag with rectangular walls joined by pleated sides and in the top wall a spaced pair of weakness lines extending along the edges and ending short of the sides and connected centrally by a further line.

The bag is fluid impervious and one or more lines in the bag segments extending through part of the sheet thickness to rupture under excessive internal pressure. The bag is pref. of Kraft paper with an impervious plastics coating on one side.

polyester. The top wall pref. carries indicia to indicate the method of opening. (7pp)

See Also

D15 GB 2073032

D15: WATER TREATMENT

HRI- ★ D15 75800 D/42 ★CH-625-425
Suspended particles removal from aq. soln. - by flocks of flocculants added to filtering aids

CHRIST TAG 22.07.77-CH-009128
(30.09.81) B01d-15 B01d-37/02 C02f-01/52
2.07.77 as 009128 (39HM)

Suspended substances are removed from aq. solns. by preparing flocks in a maturing tank by adding flocculants to inert organic or inorganic fibres of needles. The flocks have a size of 1-50 μ and are made by adding 0.1 to 3 wt.% of anionic, cationic or neutral flocculants to the inert filtering aids. These flocks are added to the flow of aq. soln. in metered amounts and assist to separate the suspended substances on a filter by absorption or filtration.

The flocculation of inert filtering aids such as kieselguhr, activated carbon powder, plastic fibres and granules by anionic, cationic or neutral flocculants produces flocks very economically. The flocks have a three-dimensional structure with embedded functional groups. Such flocks are stable and do not raise the salt content of water.

This improves the filtering efficiency and requires a minimum of material. The filter does not clog within a short time of operation. (3pp)

LONZ ★ D15 75805 D/42 ★CH-625-491
Reclaiming mercury from waste water - such as water obtd. in acetaldehyde mfr., by adding iron powder to convert mercury ions in water to metallic mercury

LONZA AG 10.12.76-CH-015551
J01 M25 (30.09.81) C02f-01/62 C07c-47/09
10.12.76 as 015551 (1144BZ)

Iron powder is added to the waste water, so that mercury present as ions is reduced to metallic Hg, which is recovered in a suitable separator. The treatment of the water with iron powder pref. occurs in either a stationary tank fitted with a stirrer, or in a row of cascade tanks. The metallic Hg is pref. removed by a centrifugal- or plate- separator. Before the water is treated with iron powder, and metallic Hg already present is pref. removed by suitable appts., e.g. a hydrocyclone. When a plate separator is used to reclaim Hg, the water leaving the separator is pref. fed through a sand filter.

As compared with earlier processes for reclaiming Hg, the present invention causes no blockage in the reclaiming plant, and the Hg obtd. can be re-used as a catalyst. (2pp)

RUML/ ★ D15 D/42 ★CS 8101-324
Thermal elimination of waste, nitrate and nitrite tempering salts
RUML V 24.02.81-CS-001324
E36 (10.09.81) C02f-11/10

RUML/ ★ D15 D/42 ★CS 8101-325
Waste nitrate and nitrite tempering salts elimination - by chemical decomposition
RUML V 24.02.81-CS-001325
E36 (10.09.81) C02f-11/14

CHEM- ★ D15 75821 D/42 ★DD-149-657
Sewage aerator impeller - with specified shape of eye rim and contours of outer shell

VEB CHEMIEANLAGE LE 28.03.80-DD-219988
A88 (22.07.81) B01f-05/16 C02f-03/16
28.03.80 as 219988 (39HM)

The impeller of a surface aerator for use in aerobic sewage treatment has an eye which is bounded by a bulbous rim with a cross-sectional area, resembling the sector of a circle. The outer contours continue in a line with a curvature which becomes more flat towards the other end of the internal curved blades, at a rate specified by the Patent. The outer contours and the inner contours, carrying the blades, converge at an angle of 5-20 deg (10-15 deg). Its material is a synthetic resin or steel.

This has a beneficial effect on the fluid kinetics and improves both the energy utilisation factor and the oxygen input. No turbulence or wall detachment are caused. (8pp)

FAIR ★ D15 75838 D/42 ★DD-149-673
Crosslinking and chloromethylating vinyl aromatic (co)polymers - by suspending in sulphuric acid and reacting with monochlorodimethyl ether

VEB CHEMIEKOMB BITT 31.03.80-DD-220050
A13 B04 (22.07.81) C08f-08 C08f-257/02
31.03.80 as 220050 (952HM)

Vinyl aromatic polymers (I) esp styrene (co)polymers are simultaneously crosslinked and chloromethylated by suspending (I) in sulphuric acid opt contg an iron cpd as cocatalyst, adding monochlorodimethyl ether opt mixed with an inert medium in an amt of greater than 1 mol per mol (I) and a swelling period of 0.5-3 hrs reacting at constant temp or with stepwise or continuous increase in temp at 20-80 deg C.

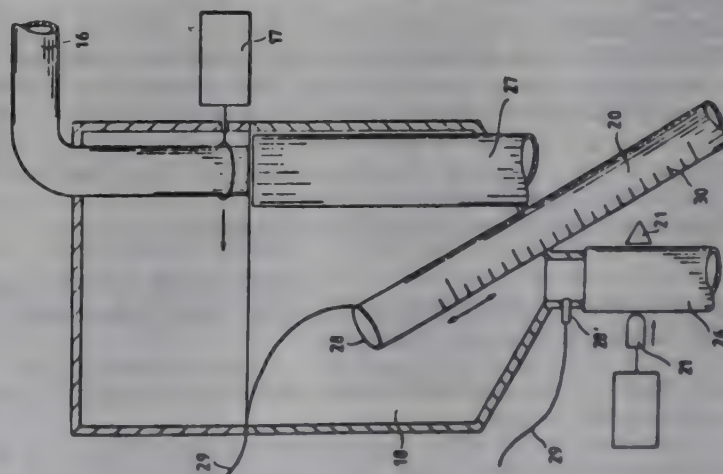
Chloromethylated crosslinked (I) beads can be prep'd economically in high yields. Using an excess of dichlorodimethylether, which also acts as crosslinking agent, a substitution degree of practically 100% can be achieved without agglomeration. The prod is used for ion exchangers, selective adsorbents and solid carriers for peptide synthesis. (8pp)

ULTR- ★ D15 75882 D/42 ★DE 3012-294
Automatic sewage sampler - with contacts diverting supply and opening outflow on reaching set sample Vol.

ULTRA X GMBH 29.03.80-DE-012294
S03 (08.10.81) G01n-01/10
29.03.80 as 012294 (39)

An automatic sampler for liq., esp. sewage, is connected to the supply by a submersible pump with a delivery hose. Its outlet into the sampler vessel can be shifted on receipt of a signal from above a return pipe to inside the vessel. One contact is at the top of an overflow pipe which governs by its length the quantity of the sample, and the second contact is at the inlet to an outflow to a collector vessel. When the two contacts are linked by a liq. column, they cause the shifting of the supply pipe outlet and, after a time delay, the opening of a squeeze clip at the outflow.

This sampler can be used even for very small samples to provide automatically the desired amt., independent of the available transport system or liq. level and is without falsification by deposits. (15pp Dwg.No.2)



MOLL/ ★ D15 75939 D/42 ★DE 3012-885
Producing high flushing pressures in filter sectors - by aligned apertures permitting flow into one sector only

MOLL HG 31.03.80-DE-012885
J01 (08.10.81) B01d-29/38
31.03.80 as 012885 (1480HM)

Filters or other appts. for treating water and which periodically undergo reversed flow for flushing the clogged filter material are divided into sectors by means of partitions. Access to these sectors is through two concentric apertured sheets movable relative to each other. In one position, for normal operation, these sheets permit equal access to all sectors, but in a second reversed-flow position used for flushing, only the apertures leading to one sector at a time are left free, causing a considerable increase in flushing fluid pressure. The apertures sheets are rotated manually or mechanically until all the sectors have been flushed.

Used with appts. for cleaning or chemically treating drinking water, bath water, waste water, etc. The high pressure produced and desirable for fluidising the filter material etc. would otherwise require stronger pumps and piping. (7pp)

WABA- ★ D15 75952 D/42 ★DE 3018-088
Cleansing system for water treatment filter - with brief flushing treatments between longer full treatment

WABAG KRETZSCHMAR 08.04.80-DE-013033
J01 (08.10.81) B01d-23/24
08.04.80 as 013033 (1480HM)

A single or multilayer filter bed used for treating water is periodically flushed by water and possibly air passing through in counterflow in order to remove suspended particles, gas bubbles etc. Between the periodic treatment for completely cleaning the filter, which follow gradual clogging throughout the body of the filter, are interposed briefer flushing programmes, normally initiated by a specific drop in pressure measured at the filter surface.

Cleaning of the filter surface, which is readily clogged by larger particles, means the deeper flushing of the whole filter can be postponed. The surface flushing only takes up to about 20% of the time for complete flushing. Consumption of power, water and air is correspondingly less. The flushing programme may be initiated by factors other than pressure drop, e.g. by turbidity. (8pp)

BENC D15 18183 B/10 = DS 2880-812
Amino-alkane-carboxylic-di:phosphonic acid prodn. - by reacting amino-, aza-cyclo- or amino-aryl alkane-di:phosphonic acid with halogeno-alkane mono- or di:carboxylic acid

BENCKISER-KNAPSACK 18.08.77-DE-737259

E11 F06 M14 (D25 F00) (08.10.81) *DE2737-259 C07f-09/38 C11d-03/36

17.08.78 as 860812 Based on EPG000930 (481KB)

Prodn. of N-carboxyalkan-aminoalkandiphosphonic acids, N-carboxyalkan-azacycloalkan-disphosphonic acids and N-carboxyalkan-aminoaryl-diphosphonic acids of formula

$R_1C(PO_3H_2)_2NR_2R_3$ (I)

is claimed.

R' is H, alkyl of formula $-(CH_2)_XCH_3$ in which X is 0-10, hydroxyethyl, carboxymethyl, Ph, N,N-bis-(carboxyalkyl) aminoalkyl, or methyl- or ethylphosphonic acid gp., or R' with R2 is a 3-5C alkylene gp. and forms an azacycloalkane ring contg. the gp. of formula.

$C(PO_3H_2)_2-N(R_3)$ (II)

R2 is H, Me or is a R3, or R2 with R' is a 3-5C alkylene gp. and forms an azacycloalkane ring contg. a gp. (II); and R3 is a carboxy-substd. unbranched alkyl gp. of formula $(CH_2)_mCOOH$ in which m is 1-12, a 2-carboxy-2,2-dimethylethyl gp. or a 1,2-dicarboxyethyl gp.

Process comprises are produced by heating (a) an aminoalkane-, azacycloalkane- or aminoarylalkane diphosphonic acid of formula

$R_1C(PO_3H_2)_2-NHR_4$

in which R4 is H or Me or R4 with R' is a 3-5C alkylene gp. and forms an azacycloalkane contg. a gp. (II), with (b) a corresp. (un)branched haloalkane carboxylic acid or halosuccinic acid (or their alkali-, alkaline earth- or alkali-heavy metal salts or esters) in mol. ratio of 1:1 to 1:3 in aq. medium at 50-160 deg.C and pH 4.0-12.0 until reaction is complete.

(I) are useful for treating aq. systems. (11pp)

UGIN D15 47541 B/26 = EP G002-636
Iodine removal from gaseous mixts. or aq. solns. - by fixing into resin contg. nonionic ethoxy ether gps.

PROD CHIM UGINE KUHLMANN 14.12.77-FR-037613

A91 E36 J01 (07.10.81) *EP---2-636 B01d-15 B01d-53/34 C01b-07/14 C02f-01/28 G21f-09

05.12.78 as 400212 (922TM) (E) 1.Jnl.Ref E(BE DE FR GB NL SE)

Gaseous or dissolved iodine, esp. the radioactive iodine contained in nuclear fuels, the vapours or solns. resulting from the treatment of fuels in nitric acid and partic. the washing solns. for the vapours which contain nitric acid, nitrogen oxides and iodine, is fixed by passing the gaseous mixt. or aqs. soln. contg. the iodine over a resin having non-ionic ethoxy ether gps. $-(OCH_2CH_2)_nO-$ (where n is 1-100).

The resin may be produced by adsorption of an ethoxylated condensation prodn. on a macro-crosslinked resin having no ionic function or on a cation exchange resin having a carboxylic function or by chemical reaction with the resin. The iodine may be recovered by displacement with glycol ethers while the loaded resin may be used in the bacteriological purification of water or for effecting halogenation or oxidation reactions. Iodine fixation is selective. (10pp)

LINM D15 49277 B/27 = EP G002-769
Activated sludge treatment of waste water - with mechanical destruction of microorganisms forming bulking sludge

LINDE AG 23.12.77-DE-757742

(07.10.81) *DE2757-742 C02f-03/12 + C02f-11/02

18.12.78 as 101742 (39TM) (G) DE2447501 DE2852220 US2227851 US3356609 US3673083 E(BE CH FR IT NL)

Industrial wastes, e.g. from the food processing industry, are biologically treated in at least one aeration basin with activated sludge and a final clarifying basin, recirculating the sludge in the aeration basin. Microbes which cause a floating froth layer of sludge are destroyed by a centrifuge treatment in the circuit

run at up to 8000 rev/min and the froth is exposed to acceleration of up to 8g. Flocculants can be added at the inlet to the final clarifying basin.

This is a safe remedy against froth layers of sludge, caused by microbes. (5pp)

LOCH- D15 64968 B/36 = EP G003-78
Sewage plant aerating device - has aerating container provided with recirculation pipes supplied with oxygen at bottom

LOCHER & CIE AG (CELL) 16.02.78-CH-001717

(07.10.81) *EP---3-787 B01f-05/04 + C02f-01/74

12.02.79 as 100396 (39TM) (G) AU-337626 DE2649756 FR222519 FR2249703 FR2357484 GB-442510 GB1484657 E(BE CH DE FR G IT NL SE)

An aeration tank for sewage is a long vertical cylinder (tower buried in the ground) with several large tubes near the periphery in which pumps create a descending flow. Several venturi shaped restrictions are arranged in each tube. The one nearest to the top has an access pipe for atmospheric air which is thereby admixed, and the next is coupled to a pipe carrying recycle activated sludge from the final clarifying basin.

The flow velocity below a venturi section exceeds the rising velocity of the gas bubbles. Several revolving turbulence producing impellers at different levels ensure that the bubbles retain a small size.

This reduces the power consumption to a minimum and raises the oxygen input efficiency. (8pp)

PENN ★ D15 76033 D/42 ★ EP --36-9
Sulphone polymer ultrafiltration membrane - having good retention of low mol. wt. macromolecules cast from hexamethylenephosphoramidate soln.

PENNWALT CORP 28.03.80-US-135035

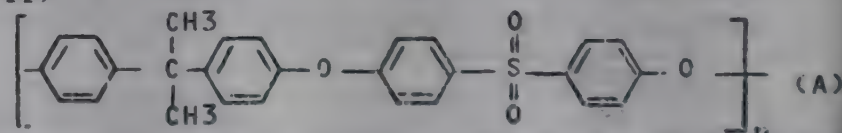
A88 J01 (A26) (07.10.81) B01d-13/04 C08l-81/06

25.02.81 as 101354 (928HM) (E) FR2277847 US4029582 US385511 FR2138334 US4026977 FR2005334 US3567810 FR2424750 GB20253 GB2000720 E(DE GB IT NL)

Membrane (I) of a film-forming non-sulphonated sulphonyl polymer (II) is prepd. by dissolving (II) in hexamethylenephosphoramidate (III) to form a 10-25 wt.% polymer soln.; casting onto a smooth surface to form a film; evaporating a portion of the solvent; and immersing the film in a gelation medium at -10 to deg.C for 1-30 mins.

Also claimed is (I) used for filtration and having (a) a water flux of at least 0.2 ml/sq.cm/min at 30 psig; (b) a retention of at least 95% of polyethylene glycol (PEG) having mol. wt. of 15000-20000; (c) a retention of at least 80% of PEG of mol. wt. of 6000 and (d) a retention of less than 10% of PEG of mol. wt. of 1000.

Pref. (I) has a water flux of at least 1 ml/sq.cm/min retention of 15000-20000 mol. wt. PEG of at least 99%, and retention of 60% mol. wt. PEG of at least 90%. Pref. (II) has repeat units formula (A) where n is of sufficient size to provide a film forming polymer. Pref. (I) is cast from a soln. contg. 14-18 wt.% of (I) (20pp)



NITL ★ D15 76132 D/42 ★ EP --37-
Semipermeable membrane for ultrafiltration - with layers differing thickness and pore size obtd. from aromatic polysulphone

NITTO ELECTRIC IND KK 10.03.80-JP-030767

A88 J01 (A26) (07.10.81) B01d-13/04 C08l-81/06

09.03.81 as 300966 (510HM) (E) J55031474 GB2000720 FR2424 GB2025312 FR2331602 US4207182 US3691068 J54010282 GB2047 BE-882475 FR2452507 DE3011917 NL8001845 US4038351 FR2005 3.Jnl.Ref E(BE DE FR GB IT NL)

Semipermeable membrane comprises (a) a dense surface layer 0.01-1 microns thick, with pores of dia. 5-100 Angstroms, (b) a comparatively dense porous intermediate layer, 2-30 microns (25 microns) thick, with pores of dia. 100 Angstroms to 0.2 microns, and (c) a porous substrate, 20-500 microns thick, with pores of 0.1-5 microns. Each layer is formed of an aromatic polysulphone free from gps. which dissociate. The layers are formed continuously in the order (a), (b) and then (c).

The membrane is used for ultrafiltration. The membrane has good rejection, using polyethylene glycol of mol. wt. 2000, of not less than 25%, and a water flux of pure water of not less than 1 cubic m/square m. day/kg/square cm., but rejects solutes of mol. wt. It has good heat and chemical resistance. (34pp)

M-★ D15 76219 D/42 ★FR 2477-363
 Continuous digester forming methane from liq. manure - in vessel with heated vertical chimney to warm and distribute manure
 SSCM SOC STEPH CONS 06.03.80-FR-005078 (29.02.80-FR-004635)
 E17 P11 (11.09.81) A01c-03/02
 03.80 as 005078 Div.ex.29.2.80-04635 (448NS)
 The digester takes the form of a vertical cylindrical vessel and is of the type which is provided with a feeding device to inject fresh manure and with means for discharging manure after fermentation. The vessel contains a vertical cylindrical chimney, pref. coaxial with the digester vessel. The injection of fresh manure is via a pipe which delivers into the passage through the chimney. The outlet for fermented manure is in the same vertical plane as the chimney inlet and is made through the vessel wall as far away as possible from the inlet. The delivery pipe axis is pref. horizontal and passes radially through the wall of the chimney. The delivery pipe pref. enters the chimney about half way between the upper and lower ends of the chimney. Liq. manure is converted to an inoffensive fertiliser. The process is suitable on an industrial scale. Gas prodn. is continuous with frequent operating problems. (16pp)

CM-★ D15 76220 D/42 ★FR 2477-384
 Continuous digester forming methane from liq. manure - in vessel equipped with recycling pump to homogenise fermenting material
 SSCM SOC STEPH CONS 06.03.80-FR-005079 (29.02.80-FR-004635)
 E17 P11 (11.09.81) A01c-03/02
 03.80 as 005079 Div.ex.004635-29.2.80 (448NS)
 The digester is in the form of a vertical cylindrical vessel and is of the type which is provided with a feeding device for the injection of fresh manure and with means for discharging manure after fermentation. The vessel contains a vertical cylindrical chimney, pref. coaxial with the digester vessel. The upper and lower ends of the chimney are spaced from the upper and lower walls of the vessel. An annular space separates the exterior of the chimney from the interior of the vertical wall of the vessel. A mixing pump recycles fermenting manure from the lower end of the vessel and returns it into the top end of the chimney.
 Generation of methane gas by digestion of liq. manure which is converted to an inoffensive fertiliser. The digester is viable on an industrial scale because of its continuous, troublefree operation. This is enhanced by thorough homogenisation of the manure during fermentation. (12pp)

TEC-★ D15 76231 D/42 ★FR 2477-427
 Filtration of liq. contg. solids in suspension - where sandy material is added so high filtration speeds are obtd. with suspensions normally very difficult to filter (BR 15.9.81)
 STEC SOC TECHN ENTR 10.03.80-FR-005577
 J01 (11.09.81) B01d-37
 03.80 as 005577 (1144)
 The suspensions can only be filtered with difficulty, so a chemically-inert, sandy material with a min. grain size of 0.1 mm is added. The result is easy filtration and simple washing of the filter cake. The amt. of sandy material added pref. has a wt. equal to 20-90% of the initial solid matter in the suspension. The sandy material is pref. recovered from the filter cake by physical or chemical washing, and is then re-used for the filtration of more suspensions. Alternatively, part of the filter cake contg. the sandy material may be recycled. Very high filtration speeds can be obtd., which are faster than when synthetic flocculants are used. (9pp)

RAP★ D15 76238 D/42 ★FR 2477-522
 Treating manures by two stage anaerobic fermentation - followed by culturing in ponds with algae
 SOC NATELF AQUITAINE 07.03.80-FR-005248
 P13 (11.09.81) A01g-33 C02f-11/04 C05f-11/02
 07.03.80 as 005248 (1251BZ)
 Two-step process for complete purification treatment of organic-rich manures comprises first anaerobic fermentation in two stages with first (acidification) stage at 30-42 deg.C and pH 4.5-6.5 for 5-20 (12-20) days and second (methanation) stage at 48-60 deg.C and pH 6.8-8.3 (7.7-8.3) for 5-20 (5-10) days.
 In the second stage the diluted effluent is cultured in ponds with algae at ambient temp. for 3-10 days, and the final mixt. is then decanted to give a supernatant suitable for direct discharge. Pref. the effluent from the first step is diluted to a COD below 2g per l and the algal fermentation is carried out using unicellular green algae of which 80% are of the genus *Chlorella*.
 The method is esp. useful for treating effluent from intensive pig raising units. By using two anaerobic stages each optimised for a particular type of bacteria, the overall quality of purification is improved. Algae harvested from the second step

can be used as fertiliser; animal feed (or esp. feed additive) or as feedstock for the first-step fermenters. The methane generated can be used as fuel for running the process. (7pp)

CIBA D15 73090 A/41 = GB 1600-162
 Clarification sludge granulation - by treating with water-absorbing or water immiscible solvent, depending on solids content
 CIBA GEIGY AG 22.03.77-CH-003569
 C03 (C04 D13) (14.10.81) *DE2812-193 A23k-01 + C02f-11/12
 21.03.78 as 011185 (965WB)
 Granulation of sewage sludge (I) to form useful prods. comprises adding to (I) at least 1 liq. (II) in an amt. sufficient to form a multi phase system (III) and to agglomerate the sludge solids (IV). (III) is then vigorously mixed until (IV) form expanded agglomerated granules, which are sepd. from the liq. phase. The granules obtd. are then dried. When the solids content in (I) is 0.1-35 wt.% (II) is a mixt. of isobutanol and MeOH. When the solids content in (I) is above 35 wt.%, (II) is a mixt. of isobutanol and MeOH, or a hydrocarbon and/or halogenated hydrocarbon (esp. perchloroethylene).
 (I) is pref. used to condition the soil, a fertiliser of feedstuff. (6pp)

SCOL D15 65334 A/37 = GB 1600-180
 Purificn. of polluted industrial effluent esp. from dye works - by ozonisation, flocculation, sedimentation, neutralisation and demineralisation
 SCHOLL MFG CO 03.05.77-DE-719638
 (14.10.81) *BE-866-635 + C02f-01/78
 03.05.78 as 017356 (006AS)
 Water purification appts., esp. for effluent from textile dyeing mills, comprises a sedimentation tank compartmented by walls which define a labyrinth flow path between the tank ends via the compartments. Sedimented waste is drawn off from an outlet remote from the tank inlet and in a flocculation compartment.
 Liquids from the compartments are pump-recirculated by several separate systems, one of which aerates and at least one includes O3 treatment. Pref. the tank has a roof with a gas draw-off pipe. (6pp)

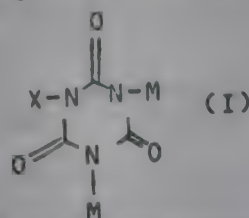
RHWL D15 86394 A/48 = GB 1600-211
 Processing nuclear power station evaporator concentrates - by converting boric acid to tri:methyl borate, inactivating antimony and precipitating radioactive nuclides
 RH-WESTF ELEKTRIZIT AG 21.05.77-DE-723025
 K06 (14.10.81) *DE2723-025 G21f-09/08
 10.05.78 as 018748 (974AS)
 Effluents contg. boric acid, radio-Sb and other radio-isotopes are treated by evaporating the effluent to dryness, treating the effluent with conc. H2SO4, cooling, treating the methanol, distilling off the resulting trimethyl ester of boric acid, storing until the Sb activity has been dissipated, precipitating the radioisotopes chemically from the stored residue and isolating the radioactive ppte.
 The effluents are boiler concentrates from nuclear power plants. (3pp)

BIOM- D15 02374 B/02 = GB 1600-283
 Anaerobic digestion tank - having gas distribution arm fed by annular gas holding ring rotatable at bottom of digester
 BIOMECHANICS LTD 05.07.77-GB-028183
 (14.10.81) *EP-----293 B01f-07/18 + B01f-03/04 B01f-13/02
 31.05.78 as ----- (006AS)
 Digestion tank for treating biodegradable waste is upright and cylindrical, and has near its base a rotating radial scraper arm with gas outlets spaced along its length. Pref. the outlets comprise lifting draught tubes, each with a vertical portion connected to a horizontal portion by a 90 deg. bend.
 Specifically the vertical portions of the draught tubes house driven turbine wheels. Min. power is needed to rotate the scraper arm through thick sludge disturbed by gas emitted from the arm. (8pp)

FISO★ D15 76294 D/42 ★GB 1600-289
 Incorporating microbicides into water for nutrient film systems - used to grow plants, partic. chloroisocyanurate derivs.
 FISON LTD 15.10.77-GB-042955 (26.08.77-GB-035973)
 C02 (C01) (14.10.81) C05g-03/02
 26.08.77 as 035973 (1251RH)
 Water which is fed to (or circulated in) a nutrient film system used to grow plants, is treated by incorporation of a pathogenicide (A). Esp. (A) is a halogen, halogen donor, permanganate, benzimidazole or other fungicides, partic. chloramine (A') or cpds. of formula (I) or their hydrates (X is halo; each M is halo or alkali metal). Esp. X is chloro; both M are chloro, or one is chloro and the other Na or K. Pref. an active concn. of 0.2-30 ppm (A) is maintained in the water and (A) is pref.

incorporated into the water together with fertiliser.

The addn. of (A) prevents the rapid spread of infections which can occur when plants are grown in nutrient film systems. (5pp)



ROHM D15 85961 A/47 = GB 1600-314
High flux cation-rejecting membrane for water deionisation - is a semipermeable membrane coated with vinyl imidazoline bisulphate polymer

ROHM & HAAS CO 30.08.77-US-829040

A88 J01 (A14 A91) (14.10.81) *US4125-462 B01d-13 + C02f-01/44 26.05.78 as 023079 (963TM)

Ion-rejecting membrane comprise a semipermeable membrane substrate having a thin layer only of non-crosslinked polymeric cationic polyelectrolyte of mol. wt. above 100,000 in a single layer directly over one or both of its surfaces.

Pref. layer is substantive to the surface of the polymeric membrane substrate under ordinary membrane filtration conditions. Pref. substrate is of polyimide, polysulphone, styrene-acrylonitrile, vinyl chloride-acrylonitrile copolymers, cellulose acetate, polycarbonates, PVC, vinyl chloride medacrylic copolymers, polyamide/imide, aliphatic and aromatic nylons, polyamide, polyacrylonitrile and polyphenylene oxide. Pref. polyelectrolyte coating is e.g. poly(ethylenimine), poly(vinylimidazoline) in bisulphate form, poly(diallyldimethyl ammonium chloride), poly(dimethylaminoethyl methacrylate), poly(N-methyl-4-vinylpyridinium chloride) and poly(glycidyl tributyl phosphonium chloride).

Useful as ultrafiltration, reverse osmosis, hyperfiltration or electrodialysis membrane and in other techniques. (11pp)

WHAT. D15 59111 A/33 = GB 1600-371
Prefilter for use with oil-water separators - having fibre element to cause coagulation of fine oil droplets in emulsions

WHATMAN REEVE ANGEL 07.02.77-GB-005008

A88 J01 (14.10.81) *DE2804-969 B01d-17/02 + B01d-27 31.01.78 as ----- (945WB)

Oil from water coalescing filter cartridge comprises a filter tube of nonwoven, randomly dispersed fibres having interstices. In the bore of the filter tube is a prefilter made from (non)woven fibrous material on which oil exhibits adhesion energy of 2-50 (ergs/cm² in the presence of surfactant.

Fibre dimensions and packing density and thickness of the prefilter are such that oil droplets of dia. at least 1 micron are captured upon passage of an oil/aq. liq. emulsion through the prefilter. Pref. the prefilter material is polypropylene nylon and/or glass fibre coated with these.

Using the cartridge, the oil content of water can be reduced from 500 ppm to less than 15 ppm even in the presence of detergents. (8pp)

BAAD/ D15 58989 A/33 = GB 1600-429
Treatment of animal excrement by forming cakes - using segmental extrusion die with several circular passages

BAADER W 08.02.77-DE-705098

P71 (14.10.81) *DE2705-098 C05f-03 + B29b-01/02 C05f-07 C05f-13 07.02.78 as 004798 (006AS)

Sewage sludge is treated by mixing it with dry organic material and forming briquettes of vol. 30 to 50 cu.cms for stacking into heaps and air-drying, pref. for 3 or more days at 65 deg.C.

Pref. the dry organic material is re-cycled dried briquettes, and the latter are made cylindrical extrusions with axial holes formed by a mandrel in an extruder nozzle. (6pp)

CRDC D15 89666 A/50 = GB 1600-448
Moulding resin baffles at intervals along filamentary bundles - for mfr. of fluid exchanger cores for dialysis etc.

CORDIS DOW CORP 10.06.77-US-805802

A32 J01 + P34 Q31 Q36 (A88) (14.10.81) *BE-868-006 B29c-06/04 B29d-31

26.05.78 as 023322 (1376JB)

Tubesheet encapsulating linearly arranged fibres in continuous tow form is mfd. by arranging the fibre tow in a mould, and flowing a polymer into the mould at right angles to the length of the fibres to fill the interstices. The polymer may be of low viscosity.

Process is simpler and cheaper than centrifugal impregnation. (10pp)

INTE-★ D15 76316 D/42 ★GB 2072
Domestic beverage aerator - gas tube through seal engage bottle mouth only when burst protection sleeve in position

INTERCYLINDER AB 20.03.80-SE-002181

(D14) (14.10.81) A231-02 B01f-03/04

06.03.81 as 007075 (1358RH)

An aerator includes a stand to hold a glass bottle and a tube holding CO₂, and a seal for the bottle mouth during aeration with tube passing through the seal. A burst protector is reciprocally vertically on the stand so that a bottle can be placed in position and the protector then lowered to surround it completely.

The seal is in the upper part of the protector so that it engages the bottle mouth only when the protector is in position. The protector is closed except at the lower end which locates in a central part of the stand in which the bottle is placed. The seal is pref. a rubber cone which is forced against the bottle mouth. (6pp)

BROW/★ D15 76345 D/42 ★GB 2072
Operating effluent treatment continuously and cyclically - with periods of air diffusion, settling, and decanting

BROWN AD 03.04.80-GB-011382

(14.10.81) C02f-03/02

03.04.80 as 011382 (295KB)

Effluent is treated by passing it through an inlet into one end of a tank having a length of 3.5 to 6 times its width. Air is diffused into the effluent for a predetermined time period. The tank contents are allowed to settle for a further predetermined time, and finally the liquid is decanted from the surface adjacent the opposite end of the tank from the inlet.

The method is used to treat industrial and domestic waste effluents, the activated sludge process to reduce BOD₅, non-filterable residue, phosphorus and total kjeldahl nitrogen. The method is applicable to waste from dairies, or vegetable/fruit canneries which have a high BOD, a high carbohydrate content, and have peak flows. (6pp)

YAMA-★ D15 76346 D/42 ★GB 2072
Submerged filter bed for liquid waste treatment - with removable shelf stack providing tortuous downflow path

YAMATO SETSUBI KOJI 28.03.80-JP-039839

(14.10.81) C02f-03/06

07.10.80 as 032296 (295BZ)

A submerged-filter-beds tank includes a tank with a removable stack of horizontal irrigated shelves resting on support bars. The shelves include two intermeshing sets, each providing communication from one shelf to the underlying one, but with communication points of one set offset from those of the other to provide a zig-zag flow path.

An air lift pipe is incorporated in the two sets of shelves to remove foul waste liquid from the bottom to the top of the tank.

Used for the biological treatment of sewage and factory effluents. The stacks can be removed for maintenance. The operation is simple and running costs low yet having a high purification efficiency. (16pp)

TORO-★ D15 76422 D/42 ★J5 611
Phosphate ion in water microanalysis - by converting phosphate ion to molybdate blue, filtering with microporous regenerated cellulose membrane and measuring colour

TOYO ROSHI KK 05.02.80-JP-012015

A89 E36 J04 (01.09.81) G01n-21/25 G01n-31

05.02.80 as 012015 (173HM)

Minute phosphate ion concentration in water is determined by (1) converting phosphate ion in the water sample to molybdate blue in usual way; (2) filtering the sample containing molybdate blue with microporous regenerated cellulose to concentrate molybdate blue on the membrane; and (3) comparing colour (or reflection and/or transmittance) of the membrane surface with a calibration table (or curve) prepared with standard samples.

The method is used for analysing phosphate in environmental water. In contrast to microporous membrane of cellulose, the regenerated cellulose membrane is capable of adsorbing molybdate blue and permits concentration of the blue pigment by adsorption and filtration.

In an example water sample (containing about 0.2mg of phosphate) was placed into 1 l measuring flask, and neutralised with H₂SO₄. 110 ml of NH₄ molybdate solution and 5 ml of SnCl₂ solution were added, and distilled water added up to the mark. After standing for 15 minutes, the solution was filtered with regenerated cellulose microporous membrane, and the colour of the membrane was measured spectrophotometrically. (5pp)

OS ★ D15 76565 D/42 ★ J5 6110-800
 aning agent for bath water contg. di:chloro:isocyanuric acid
 t - and polyoxyalkylene deriv(s)., prevents generation of slime
 d smell
KAOSOAP KK 07.02.80-JP-013914
A97 E12 (02.09.81) C11d-01/72 C11d-03/39
 02.80 as 013914 (126NS)
 ent comprises (A) dichloroisocyanuric acid salt, pref. the Na or
 salt, and (B) one or more polyalkylene oxide derivs. of formula
 (I) R-O(CH₂CH₂O)_nH and/or HO-(CH₂CH₂O)_mH (II) (R is 12-
 C alkyl, n and m are numbers which make the pt. or the
 ftening point of which corresponding cpd. at least 40 deg.C)
 ref. the molecular wt. of (B) is 2000-10000. Pref. if B is (II), n is at
 least 15. Pref. the agent contains (A) 10-50 wt.% and (B) is 1-30
 .%. (6). Pref. the agent contains an inorganic salt. Pref. the
 ent contains an inorganic peroxide in an amt. regulating the
 tio of the available chlorine/ available oxygen to 1/2-1/0.05.
 (pp)

ITR ★ D15 76587 D/42 ★ J5 6111-043
 aterial for recovering radium and uranium from water -
 mprises mainly anatase or amorphous titanic acid
MITSUBISHI RAYON KK 04.02.80-JP-012277
E31 J01 K08 (02.09.81) B01j-20/06 C01f-13 C01g-43 C02f-01/28
G21c-19/16
 .02.80 as 012277 (51AS)
 aterial for removal and recovery of radium and uranium from
 ater comprises mainly anatase or amorphous titanic acid.
 In an example, 8.0 mol. anatase titanic acid powder was mixed
 with 0.8 mol. H₂SO₄ and 30 mol. water, and shaped to obtain
 cylindrical pellets of 0.7 mm dia. and 2 cm length. The pellets
 were dried at 300 deg.C for 3 hrs. and immersed in an aq. soln.
 containing NaOH for 5 hrs. to obtain neutralised pellets. (3pp)

ITR ★ D15 76592 D/42 ★ J5 6111-051
 ompsn. for recovering radium and uranium from water - obtd.
 om anatase or amorphous titanic acid, sulphuric acid and
 ater
MITSUBISHI RAYON KK 04.02.80-JP-012278
E31 J01 K08 (02.09.81) B01j-39/14 C01f-13 C01g-43 C22b-60
G21c-19/46
 .02.80 as 012278 (51PW)
 he compsn. is obtd. by mixing 8 mol. of anatase or amorphous
 tantic acid, 0.1-7.2 mol. of H₂SO₄ and 0-50 mol. of water to obtain
 haping the mixt. to obtain pellets, and heating the pellets to
 obtain a pellet type inorganic ion exchanger.
 In an example, 8.0 mol. of anatase type titanic acid powder was
 mixed with 0.8 mol. of H₂SO₄ and 30 mol. of H₂O and shaped to
 obtain pellets of 0.7 mm dia. and 2 mm length. The pellets were
 ried at 300 deg.C and immersed in an aq. soln. of NaOH to obtain
 neutralised pellets. 3.1 kg of the neutralised pellets were packed
 a tower to 100 mm dia. and 400 mm height. Waste water contg.
 adium and uranium was passed down through the tower to
 remove radium and uranium from the water. (3pp)

OKU ★ D15 76593 D/42 ★ J5 6111-052
 urifying ion exchange resin - using aq. soln., contg. surfactant
 nd hypochlorite at pH 10-13
TOKUYAMA SODA KK 05.02.80-JP-011996
A91 J01 (02.09.81) B01d-13/02 B01j-47/12
 5.02.80 as 011996 (51PW)
 ethod comprises purifying used ion exchange resin using aq.
 ain. contg. 100-8000 ppm surfactant and 10-800 ppm of
 ypochlorite at pH 10-13.
 The hypochlorite is sodium, calcium, potassium hypochlorite.
 The surface active agent is sodium alkylbenzene sulphonate,
 odium alkyl sulphonate, sodium alkyl naphthalene sulphonate,
 odium polystyrene sulphonate, sodium polyacrylate, or
 olyoxyethylene alkylether.
 A selectively permeating cation exchange membrane and a
 electively permeating anion exchange membrane were
 alternately laminated. Sea water was electro dialysed through
 he resulting laminated membrane for 3 months. The resulting
 used membrane was washed with a soln. of sodium hypochlorite
 djusted with NaOH to pH of 11.0 to obtain a purified and
 egenerated membrane. (5pp)

MITV ★ D15 76599 D/42 ★ J5 6111-084
 reating fire extinguishing foams contg. waste liq. - by adding
 eric and magnesium chloride, alkali, and coagulant to form
 flocs and then filtering
NITTAN KK 06.02.80-JP-014049
K01 (02.09.81) C02f-01/52
 6.02.80 as 014049 (34NS)
 urfactant- or protein-type foams fire-extinguishing agent-contg.
 aste liquor is subjected to flocculating treatment by adding
 FeCl₂ and FeCl₃, followed by alkali to adjust its pH to 10.5 to

generate flocs. Polymer coagulant is then added to increase the
 size of the flocs, which are then filtered by e.g. in vacuum pre-
 coating filter. The filtrate is neutralised with acid e.g. HCl and
 subsequently the treated water fed into a drainpipe etc.

MgCl₂ and FeCl₃ adsorb foaming components contained in the
 waste liquor. The filtrate is prevented from foaming caused by
 small amts. of foam-extinguishing agent.

In an example, 10,000 ppm of MgCl₂ and 2,000 ppm of FeCl₃ are
 added to a surfactant-type foams fire-extinguishing agent,
 followed by stirring. 5,000 ppm of NaOH are then added to adjust
 its pH to 10.5. 20 ppm of polymer coagulant were added (Sumifloc
 FA-50) to cause flocculation. The prod. was filtered and the
 filtrate neutralised with HCl aq. to pH 7. (5pp)

NIDE ★ D15 76600 D/42 ★ J5 6111-085
 Oxidising formaldehyde contained in waste water - using
 hydrogen peroxide, and a copper salt as reaction end point
 indicator

NIPPON ELECTRIC KK 07.02.80-JP-013920
E17 (02.09.81) C02f-01/72 G01n-31/22

07.02.80 as 013920 (34NS)

A Cu salt e.g. CuSO₄ etc is added to water followed by H₂O₂,
 while maintaining its pH at 8-12 until Cu suboxide is not formed.
 The treated water changes from orange yellow to dark green at
 the reaction end point. Addition of excess H₂O₂ is prevented and
 the process becomes very economical.

By previously adding the Cu salt to the waste water, Cu ion is
 oxidised to orange yellow-coloured Cu suboxide by nascent
 hydrogen. The Cu suboxide is converted to a dark green-coloured
 mixt of CuO and Cu(OH)₂. The amt of Cu salt added is pref
 greater than 10 (100-1000) mg/l. (2pp)

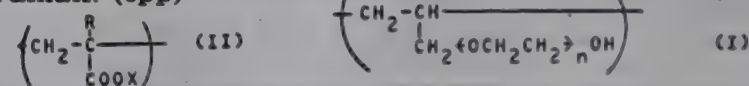
JAPC ★ D15 76601 D/42 ★ J5 6111-098
 Descaling agent for aq. systems - comprises block copolymer
 obtd. by polymerising polyethylene glycol mono:allyl ether and
 (meth)acrylic acid monomer

NIPPON SHOKUBAI KAGAKU 06.02.80-JP-012467
A97 (A14) (02.09.81) C02f-05

06.02.80 as 012467 (34KB)

Descaling agent which supresses formation of scale even when
 circulating water to be treated contains difficult- soluble Ca- or
 Mg-salt or has high pH comprises a block copolymer consisting of
 repeating structural unit of formula (I) (where n is an integer of 5-
 100), and repeating structural unit formula (II) (where R is H or
 methyl, and X fs H, mono- or di-valent metals, NH₄⁺ or organic
 amine radical). The wt ratio between the units (I) and (II) is 5/95-
 60/40.

The block copolymer is e.g. prepared by copolymerising a
 polyethylene glycolmonoallylether and (meth)acrylic acid-type
 monomer, using polymerisation initiator, and opt neutralising
 with alkali. (6pp)



MATU ★ D15 76627 D/42 ★ J5 6111-465
 COD value measurement - involves measuring chloride concn. in
 water to deduce amt. of potassium permanganate consumed by
 chloride in water

MATSUSHITA ELEC IND KK(KIMO-) 06.02.80-JP-014120
J04 (03.09.81) G01n-27/26 G01n-33/18

06.02.80 as 014120 (117RH)

COD value is obtd. measuring chlorine ion concn. in water
 sample to obtain the amt. of potassium permanganate consumed
 by chlorine ion, potassium permanganate is then added without
 silver salt to obtain the total amt. of the potassium permanganate
 consumed, the amt. of potassium permanganate consumed by
 the chlorine ion is deducted from the total amt. of the potassium
 permanganate to obtain actually measured value in case where
 no silver salt is added, the actually measured value for a test
 water with the same compsn. as the test water in case where
 silver salt is added is divided by the actually measured value for
 the case where no silver salt is added to obtain an oxidn. rate
 coefft., and then actually measured value for a test water in case
 where no silver salt is added is multiplied by the oxidn. rate
 coefft. to obtain COD value.

This measurement method for COD value can greatly reduce
 the amt. of silver salt used and also measuring cost as well as
 obtain easily COD value with high accuracy. (5pp)

MITC ★ D15 76773 D/42 ★ J5 6112-647
 Determin. of total organic carbon in halogen ion contg. sample -
 esp. water, by burning sample on oxidising catalyst, contacting
 with metallic silver and measuring carbon di:oxide content

MITSUI PETROCHEM IND KK 12.02.80-JP-016308
J04 (05.09.81) G01n-31

12.02.80 as 016308 (173RP)

Total organic carbon (TOC) in halogen-ion-contg. sample is determined by (1) burning the sample on oxidising catalyst (e.g. Co oxide, Pt, Pd, etc.), (2) bringing the oxidised gas stream into contact with metallic Ag (or Co₃O₄) treated with inorganic acid, and (3) determining CO₂ content in the gas stream (pref. by non-dispersive IR analysis).

The method is used for determination of TOC in the environmental water samples. Noise caused by halogen ions is excluded by the treatment with Ag (or Co₃O₄) treated with inorganic acid. In an example, sea water (COD 7 ppm) was used as the sample. 20 microlitres of the sample was passed through a 18 mm dia. quartz glass tube packed with 12 g of Co₃O₄ (temp. = 900 deg.C) together with 180 ml/min of air. The oxidised gas stream was passed through a column packed with 30 g of Ag treated with boiling 35% hydrochloric acid for 2 mins. The gas stream was then led to a NDIR analyser. (5pp)

MITU ★ D15 76804 D/42 ★ J5 6112-910
Cation exchange resin mfr. - of crosslinked acrylic acid (ester) contg. sulphonic acid gps.

MITSUBISHI CHEM IND KK 13.02.80-JP-016268

A91 J01 (A14) (05.09.81) B01j-39/20 C08f-08/36

13.02.80 as 016268 (57BZ)

The cation exchange resin comprises crosslinked skeleton structure in which monofunctional cpd. with acrylic acid or its ester as the main body and polyfunctional cpd. are copolymerised and partial structure in which sulphonic acid gp. is bonded to carbon in alpha position of acrylic acid part of the skeleton.

Its mfg. process comprises sulphonating crosslinked copolymer of monofunctional cpd. with acrylic acid or its ester as the main body with polyfunctional cpd. As the polyfunctional cpd., divinyl benzene, divinyl toluene, divinyl naphthalene, etc. are cited.

As the cation exchange resin has skeleton consisting of crosslinked aliphatic carbon chain, it shows little organic contamination by protein, etc. Thus it is utilised for uses such as purificn. of amino acid, medicine, etc., treatment of waste water, etc. It has high heat resistance compared with the prod. on the market. It can be utilised as acid catalyst. (4pp)

EBAI ★ D15 76891 D/42 ★ J5 6113-305
Backwashing filter for e.g. dirty water - includes feeding water and gas to bed at specific rate

EBARA INFILCO KK 08.02.80-JP-014425

J01 (07.09.81) B01d-23/24 B01d-29/38

08.02.80 as 014425 (26KB)

A method is claimed for back-washing a filter for filtering a liquid such as dirty water. The filter comprises a packed bed of granular filtering medium in a tank having a filtering medium flow-out stop structure. Both cleaning water and gas are supplied to the bed to back wash it.

The cleaning water feed rate is 1/15 to 1/10 of the filter medium's termination speed and the gas flow rate is 20-40 m/hr. The gas may be air. Both gas and water are fed at the same time and then only the water is fed. (6pp)

TSUB. ★ D15 76893 D/42 ★ J5 6113-307
Device for removing particulate solids etc. from e.g. dirty water - comprises horizontally rotatable screen drum with pair of endless chains passing over sprockets to form edges of drum

TSUBAKIMOTO KOGYO K 14.02.80-JP-015977

(07.09.81) B01d-33/32

14.02.80 as 015977 (26KB)

A device for removing dust from water such as dirty water, contg. floating garbage, comprises a screen drum rotatable around a horizontal axis. The object is to effectively collect dust with enlarged filtering area.

The drum consists of a pair of endless chains passing over sprockets to form both side edges of drum. Between the chains, panels are stretched to form the entire side wall of the drum. One end face of the drum is closed and the other end face has an opening for feeding the raw water into the drum. Each panel is made of a wire net shaped like cage to trap dust when the water pass through the panel. (4pp)

AKAE ★ D15 76894 D/42 ★ J5 6113-308
Rotary drum liq. filter - comprising two series connected rotary drums with agglomerant feed pipe from second drum opening into a sludge drain pipe from first drum

AKAE KIKAI KOGYO KK 14.02.80-JP-016054

P41 (07.09.81) B01d-43 B03b-05/56

14.02.80 as 016054 (26RH)

Device is claimed for purifying waste water contg. sludge. It comprises a first rotary drum laid in horizontally and rotated by rolls and second rotary drum connected in series to the first

The object is to effectively separate the water into liq. & solid. The novelty is as follows. A sludge drain pipe is mounted an end plate of the first drum at the drain side. The agglomerant feed pipe is opened in the sludge drain pipe. The drain pipe has conically expanded top end opened in the second drum. (8pp)

AKAE ★ D15 76895 D/42 ★ J5 6113-309
Rotary drum type liq. filter - using radially extending blades horizontal centre shaft connected to conical vertical plate control sludge flow

AKAE KIKAI KOGYO KK 14.02.80-JP-016055

P41 (07.09.81) B01d-43 B03b-05/56

14.02.80 as 016055 (26RH)

A device is claimed for sepg. waste water into clean water & solid. It comprises a first and second rotary drums connected in series to form a unified horizontal drum rotated by rollers, separate the water. A partition wall (vertical) is located at junction of the drums. A sludge drain port is formed through wall to drain sludge into the second drum.

The object is to softly drop sludge from the drain port. The novelty is as follows. Radially extending blades are mounted on horizontal centre shaft connected to a conical vertical plate disposed in the first drum, near the partition wall, so that sludge flows down along the vertical plate, blades and conical guide plate attached at the top end of the shaft. (9pp)

AKAE ★ D15 76896 D/42 ★ J5 6113-310
Rotary drum liq. filter for waste water - includes 2 horizontal drums connected serially

AKAE KIKAI KOGYO KK 14.02.80-JP-016056

(07.09.81) B01b-05/56 B01d-43

14.02.80 as 016056 (26WB)

Device for sepg. waste water into clean water and sludge comprises first and second horizontal rotary drums connected through a vertical wall in series. A sludge drain unit is formed a vertical wall having a central opening. This unit comprises tube connected to the vertical wall, vertical plate fixed to outside of the tube, in parallel to the vertical wall, and another vertical wall fixed to the second drum, so that it faces the top of the tube and in parallel to that vertical plate.

Solids of low water content are obtd. (8pp)

AKAE ★ D15 76897 D/42 ★ J5 6113-311
Rotary drum filter for waste water - comprises 2 serially connected horizontal rotary drums and conical drain pipe

AKAE KIKAI KOGYO KK 14.02.80-JP-016057

P41 (07.09.81) B01d-43 B03b-05/56

14.02.80 as 016057 (26WB)

Device for sepg. waste water into clean water and solid comprises first and second horizontal rotary drums connected through a vertical wall in series. The wall has a central opening at which a sludge drain pipe is attached.

The drain pipe has a conical expanded opening at the second drum side and steps are formed at the inner surface of the conical wall to increase the residence time of the sludge drained from first drum, into which the raw water is fed. An agglomerant feed pipe is opened in the pipe. (6pp)

AKAE ★ D15 76898 D/42 ★ J5 6113-312
Rotary drum liq. filter for draining sludge - has radially extending blades located between vertical cone plate and wall of second drum of series

AKAE KIKAI KOGYO KK 14.02.80-JP-016058

P41 (07.09.81) B01d-43 B03b-05/56

14.02.80 as 016058 (26BZ)

A device for sepg. waste water into clean water and solid comprises a first and second rotary horizontal drum connected in series through a vertical wall having a central opening, at which a sludge drain unit is attached. The object is to softly drain sludge into the second drum, while the raw water is fed into the first drum.

The novelty is that a vertical plate is disposed in the second drum so as to face at the vertical wall. Radially extending blades are located between the vertical plate and vertical wall so that the sludge from the first drum is drained into the second drum, without shock. (8pp)

AKAE ★ D15 76899 D/42 ★ J5 6113-313
Liq. filter consists of two rotary horizontal drums in series having vertical blade centred on centre axis of drums between vertical wall and plate

AKAE KIKAI KOGYO KK 14.02.80-JP-016059

P41 (07.09.81) B01d-43 B03b-05/56

14.02.80 as 016059 (26BZ)

A device is claimed for sepg. waste water into clean water & solid. It comprises two rotary horizontal drums in series

from the first drum to the second, without shock and ease its residence time. The novelty is that a vertical conical is located in the second drum, facing at the vertical wall. A cal blade is disposed with centre at the centre axis of the is, between the vertical wall and vertical plate to form a cal passage of sludge drained from the first drum. (7pp)

E-★ D15 76900 D/42 ★ J5 6113-314
a. for sepg. waste water into clean water and solids - comprises two horizontal rotatable drums in series, one having a directing sludge into the other drum
KAE KIKAI KOGYO KK 14.02.80-JP-016060
41 (07.09.81) B01d-43 B03b-05/56
2.80 as 016060 (26NS)

ice comprises first and secondary horizontal rotary drums connected in series through a vertical wall having a central hing, at which a sludge drain unit is attached.

he unit comprises a horizontal cone attached at the opening of vertical wall, with radially extending blades and vertical end es attached at one side edge of each blade. The tube is cally reduced at the opening of the vertical wall so that the e drains gently along the blades towards the second drum.

AI ★ D15 76928 D/42 ★ J5 6113-391
ating waste water contg. fluorine cpds. - by adding acid and acting with chelate resin
BARA INFILCO KK 12.02.80-JP-015786
01 (07.09.81) B01j-45 C02f-01/42
2.80 as 015786 (34RH)

prine cpds. which are difficult to remove by addn. of Ca cpd., BF₄(-) etc. are effectively removed by adsorption from waste er by adjusting its pH to less than 7 with mineral acid e.g. HCl and subsequently contacting with chelate resin so as to be orbed. When free fluorines is contained in the waste water to eated, Ca cpd. e.g. CaCl₂ and Ca(OH)₂ etc. is previously ed thereto to remove the free fluorine in the form of CaF₂. sedimentation of CaF₂ is effectively accelerated with mer coagulant. After the adsorption treatment, the treated er is neutralised at pH 6-8 with caustic alkali e.g. NaOH and H etc. The regeneration of the chelate resin is effected with OH and HCl at regeneration rate of greater than 90%. (4pp)

WA ★ D15 76929 D/42 ★ J5 6113-392
ating emulsified-oil-contg. effluent - by adding coagulant, e.g. phate, adjusting pH to weakly alkaline, and two/step atment with fixed microorganism membranes
NIPPON STEEL CORP(KANK-) 14.02.80-JP-017153
J01 M21 (07.09.81) C02f-01/52 C02f-03/02 C02f-09
02.80 as 017153 (34PW)

ulsified oil-contg. effluent e.g. discharged from a cold rolling nt of thin steel plate, etc. is subjected to a purificn. Method nprises (a) adding a coagulant e.g. Al sulphate, Fe sulphate, . and a pH-adjusting agent e.g. Ca(OH)₂ etc. to adjust the pH to weakly alkaline (9-10) to remove by coagulation biological tabolism-inhibiting substances, e.g. mineral oil, surfactants d oils and fats, etc.; and (b) subsequently treating with croorganism membrane in two steps arranged in series (e.g. trickling filters and rotating disc process etc.). Bulking effect is suppressed. Ca(2+) ion contd. in the ologically treated water obtd. is converted to CaCO₃ by action with CO₂ generated during the biological degradation. e pH exhibits buffer effect at nearby 7-8 by the action of NH₃-N o resulted. Therefore, reneutralisation of the treated water is t necessary. (5pp)

TA ★ D15 76930 D/42 ★ J5 6113-400
ate water treatment to decompose soluble organic cpds. - by ding iron salt and hydrogen peroxide and heating
HITACHI KK 15.02.80-JP-016611
(07.09.81) C02f-01/72 C02f-09
02.80 as 016611 (34WB)

fficult to decompose soluble organic cpd(s), e.g., isopropyl ohol etc. in waste water are completely and economically oved by adding Fe salt and H₂O₂ in amts. greater than 0.5 ulv. and greater than one equiv., respectively followed by ating at 50-70 deg.C for greater than 60 mins. with stirring to compose by oxidn. the organic cpd(s). and treating with ongly basic anion exchange resin to adsorb the decomposed bstances. Isopropyl alcohol is comparatively easily oxidised to oplonic acid by the action of H₂O₂, and propionic acid thus ulting is completely removed by adsorption by contacting with ongly basic anion exchange resin. The anion exchange resin eatment is pref. carried out after filtration and activated arcoal treatment of the decomposed liquor. The waste water to eated may also contain a large amt. of suspended solids. ecess is suitable fortreatment of electrodepositing washing

effluent contg. epoxy resin. (6pp)

KURS D15 84381 A/47 = J8 1039-921
Testing a hollow fibre membrane module for leaks - by using gas with refractive index different from air
KURARAY KK 28.04.77-JP-050416
A88 J01 S02 (A35 S03) (17.09.81) *DE2818-673 B01d-13 G01n-21/41

28.04.77 as 050416 (236NS)

Method for detecting leaks in a module comprising a housing contg. a bundle of hollow fibres with one of the ends of the fibres embedded in a sealing layer is as follows. A pressurised gas having a refractive index different from that of the surrounding atmos. is introduced into the housing so that it surrounds the outside of the fibres. The atmospheric volume adjacent to the embedded end of the module is optically surveyed and any pattern of refraction is noted as an indication of leaks of the gas through the bonded end of the fibres.

The method is partic. applicable to modules of the type used in dialysis, ultrafiltration, reverse osmosis, fractionation of gas mixtures, etc. It enables the fibres to be tested for leaks without using a liquid. (J53134776) (6pp)

MOCH/ ★ D15 77042 D/42 ★ J8 1039-922
Filter for treatment of dirty water etc. - comprises tank contg. filtering medium bed and circulating pipe connected to drain and feed ports J5 31.10.79)

MOCHIZUKI H 21.04.78-JP-048074
(17.09.81) B01d-23/24

21.04.78 as 048074 (26RP)

A device for filtering a liq. such as dirty water, comprises a tank, filtering medium bed and filtering medium circulating pipe connected between a bottom drain port of the tank and upper feed port of the tank. (J54140266) (4pp)

NAKA- D15 13872 C/08 = J8 1039-924
Device for continuously dewatering waste water sludge - includes suction boxes beneath an endless belt of filtering cloth

NAKAJIMA SEISAKUSHO 29.06.78-JP-079682
+ P71 (17.09.81) *J55005-759 B01d-33/04 + B30b-09/24

29.06.78 as 079682 (26RH)

The device comprises an endless belt of cloth passing over terminal rollers to form a bend conveyor, on which the waste water with muddy matter is supplied. Suction boxes are arranged beneath the belt along its length to de-water the sludge.

Cracking of the cake is avoided by using rolls each having annular grooves in their circumference which are arranged over the belt in contact with the cakes to press out the cracks. (J55005759) (7pp)

HATA/ ★ D15 77043 D/42 ★ J8 1039-926
Automatic draining of pptes. or sludges from water filter - via pinch valve attached to drain port of strainer (J5 2.11.79)

HATANO M 27.04.78-JP-050306
(17.09.81) B01d-35/02 B01d-37/04

27.04.78 as 050306 (26BZ)

A device is claimed for automatically draining pptes. in a strainer for filtering the river water or the tank to produce an agricultural and industrial waters. It comprises a pinch valve attached at a drain port of the strainer to drain the pptes, depending on the clogging condition of a screen assembled in the strainer. (J54141459) (6pp)

NIEN- ★ D15 77044 D/42 ★ J8 1039-927
Liq. filter for treating water etc. - comprising closed tank and reservoir, removing filtering medium into reservoir to permit washing J5 7.11.79)

NIPPON ENVIRO KOGYO 28.04.78-JP-051123
(17.09.81) B01d-37/02

28.04.78 as 051123 (26RH)

A device and method are claimed for filtering a liquid such as dirty water. The device comprises a closed tank and liquid reservoir. A filtering medium is contained in the tank. In washing the tank, the filtering medium is removed into the reservoir having the same internal volume as the tank. (J54142665) (3pp)

AGEN D15 75998 B/42 = J8 1039-953
Arsenic removal from hot subterranean water - by electrolytic coagulation using an iron anode and then an aluminium anode
AGENCY OF IND SCI TECH 25.02.78-JP-020390
E36 (17.09.81) *J54113-952 + C02f-01/46

25.02.78 as 020390 (34AS)

Arsenic is removed, by electrolytic coagulation, from subterranean hot water contg. sillicic acid, by adjusting its pH to 3-4.5; applying d.c. from an Fe anode immersed in the water to dissolve Fe ion, the amt. of Fe ions being 5-10 times that of the As; and applying d.c. from an Al anode immersed in the hot water to dissolve Al ions, the amt. of Al ions being 1/10 to 1/2 times as that

of the Fe ions.

Flocs of As, adsorbed mainly on Fe hydroxide, are pptd. Pref., oxidising agent is first added to the hot water to oxidise arsenic to the pentavalent state. The process is suitable for use in generation of electric power. Reduced amts. of Fe and Al are used. (J54113952) (6pp)

AMCE D15 23254 V/13 = J8 1039-956
Removal of chromium and ferricyanide from aq. effluents - by treatment with zinc dithionite etc.

AMCHEM PROD INC 31.08.72-US-285190
J01 (17.09.81) *DE2321-594 C01g-09 + C02f-01/58
26.02.73 as 023047 (WB)

Cr VI and/or complex Fe cyanides are virtually completely removed from aq. solns. contg. these by treating with an ionic cpd. A-X in which the anion X reduces the Cr(6+) to Cr(3+) and the cation A reacts with the complex cyanides to produce insol. cpds. Prefd. treatment agent A-X is zinc dithionite.

The treatment is esp. useful for ind. effluents e.g. from Al sheet treatment contg. chromic acid, potassium ferricyanide and HF. (J49067444) (10pp)

CHIY D15 71276 W/43 = J8 1039-957
Spent pickling liquor purifn - by addn of lime, oxidizing agent with subseq filtration

CHIYODA CHEM ENG CO 05.06.73-JP-062515
M12 (17.09.81) *J50010-780 + C02f-01/72
05.06.73 as 062515 (RP)

Spent pickling liquor is mixed with excess amt. of a Ca compd. and after adding anoxidising agent the spent pickling liquor is agitated and filtered to remove solid materials. The resulting filtrate is discharged after adjusting the pH to -7.0.

In an example 500 ml spent pickling liquor (COD 1500 ppm) contg. 5000 ppm Fe was mixed with 30 g lime, and then 6 wt.% bleaching powder was added. After agitating for 2.5 hr., the liquor was filtered to remove solid materials and mixed with HCl for the pH adjustment. The liquor thus treated had pH 8.0 and COD 5.5 ppm, and contained trace Fe. (J50010780) (2pp)

MITO D15 60849 B/33 = J8 1039-960
Biological treatment of waste water contg. dithionite acid and ammonia - using activated sludge contg. sulphate and nitrate ions, formed by use of thio: cyanogen as main nutrient source

MITSUBISHI HEAVY IND KK 21.12.77-JP-152869
(17.09.81) *J54085-551 + C02f-03/34
21.12.77 as 152869 (50KB)

Method comprises growing an activated sludge using thiocyanogen as main nutrient source under aerobic conditions to oxidise the thiocyanogen into sulphate ion and nitrate ion, and adding waste water contg. dithionite acid and ammonia to the activated sludge to oxidise dithionite acid to sulphuric acid and ammonia to nitric acid respectively.

Specifically, the activated sludge used comprises sulphur-oxidising bacteria such as Thiobacillus thioautotrophicus, Thiobacillus neopolitani, etc. In an example, ammonia was oxidised completely into nitric acid in about 2 days and dithionite acid into sulphuric acid in about 10 days. (J54085551) (4pp)

NIPC D15 71424 X/38 = J8 1040-087
Removal of sulphur cpds from waste liq - by treating with copper and/or iron ions and oxidising

NIPPON CHEM IND KK 04.02.75-JP-013981
E36 J01 (18.09.81) *J51089-871 + B01j-23/72 C01d-05 C02f-01/62
04.02.75 as 013981 (NS)

Waste liquid of exhaust gas is treated with soluble Cu salt, e.g. CuSO₄, CuCl₂ or CuNO₂ at a concn. of more than 20 ppm Cu ion and/or soluble Fe salt e.g. Fe₂(SO₄)₃ at conc. more than 100 ppm as iron, the soln. is adjusted to pH 5-10 and subjected to oxidn. by air etc. and solid formed and the soln. are sepd. by filtration etc.

Oxidn. appts. is improved and the efficiency for sepn. and recovery of V and Ni can be raised. (J51089871) (6pp)

IIOD-★ D15 77063 D/42 ★ J8 1040-295
Determining organic content in water - by irradiating water with uv light, and comparing with known values (J5 13.9.78)

IIO DENKI KK 24.02.77-JP-019930
J04 (19.09.81) G01n-21/64 G01n-33/18
24.02.77 as 019930 (126NS)

After irradiating the water to be tested which is capable of emitting fluorescence with ultraviolet rays having 285-325 nm and/or 345-385 nm wavelength, the luminous intensity of the fluorescence of the tested water excited by the irradiation is measured. The correlation between said luminous intensity and the separately determined parameter of the organic matter content in the water to be tested is determined, and the content

Parameters of organic matter contents in the water such as COD, BOD, TOC etc. may be determined. (J53105288) (9pp)

IIOD-★ D15 77064 D/42 ★ J8 1040-296
Determining concn. parameters of organic material in water - by measuring fluorescence of samples to determine COD, BOD etc. (J5 17.7.79)

IIO DENKI KK 27.12.77-JP-157848
J04 (19.09.81) G01n-21/64 G01n-33/18
27.12.77 as 157848 (126RP)

Parameters of the concn. of organic matter in the dissolved state (A) and suspended state (B) are measured against water (C). Luminous intensities of fluorescence over the specified wavelength regions excited by the ultraviolet rays and near ultraviolet rays are measured also for both water contg. A and B. The correlation coeffs. are determined and the correlation formula decided. Parameters of the concn. of organic matter in the dissolved and suspended state in an optional water sample can be determined by utilising the correlation formulae.

Parameters of the concn. of organic matter in the water such as COD, BOD, or TOC can be determined. (J54089796) (9pp)

TOKT-★ D15 77088 D/42 ★ J8 1040-601
Concentration of waste soln. drained from plating bath - by heating soln. and contacting with gas until solvent is satd. (J5 3.6.76)

TOKYO TOKIN KK 02.12.74-JP-137032
J01 (22.09.81) B01d-01/14 C02f-01/10
02.12.74 as 137032 (26BZ)

A method and device are claimed for concentrating a soln. such as waste liquor drained from plating factories. The device comprises a heat exchanger, heater and evaporator. The solution is heated and contacted with a gas until the solvent is satd. (J51064469) (4pp)

JAPG D15 61921 X/33 = J8 1040-604
Device with hollow semi-permeable fibres bundle - for osmosis, reverse osmosis, dialysis, ultra filtration etc.

NIPPON ZEON 10.03.75-JP-028845
J01 P34 (D13 D16) (22.09.81) *DE2603-560 A61m-01/03 B01d-13
10.03.75 as 028845 (TM)

An appts for exchange of material between two fluids comprises a housing enclosing a bundle of hollow fibres with permeable walls and means for passing the first fluid through the housing over the outer surfaces of the fibres whilst the other fluid flows through the internal passages in the fibres.

The novelty lies in the fact that the housing has a number of wall sections next to the bundle of fibres which are so shaped that they form enlargements in the crosssectional of the housing and cause the first fluid to flow transversely across the bundle of fibres.

The appts is used in artificial kidney and lung machines, for desalination of water, thickening of fruit juices, removal of sediment from beer etc.

By forcing the first fluid to flow transversely across the fibres, good mass transfer is achieved by the high velocities and boundary layer disturbance in the centre as well as the outer parts of the bundle. (J51103873) (98pp)

NITL D15 00662 B/01 = J8 1040-605
Semipermeable membrane with good water permeability and salt rejection - is prepd. using a swelling agent comprising urea, aliphatic mono- or di-carboxylic acid and/or their anhydride

NITTO ELECTRIC IND KK 22.04.77-JP-047109
A88 J01 (22.09.81) *J53131-983 B01d-13
22.04.77 as 047109 (42BZ)

The semi-permeable membrane (I) is prepd from a soln. contg cellulose organic acid ester (II), solvent (III) and swelling agents (IV). In the improvement, (IV) contains at least 1 of urea (V), aliphatic monocarboxylic acid (VI), aliphatic dicarboxylic acid (VII) and their anhydrides (VIII).

Pref (VI) and (VII) are of formulae, R₁-COOH and HOOC-R₂-COOH (where R₁ is H or 1-5C hydrocarbon; and R₂ is 1-5C hydrocarbon), e.g. formic acid, acetic acid, propionic acid, oxalic acid, malonic acid, maleic acid, etc; (IV) is mixt of water and (V) or a mixt contg (V) and (VI) and/or (VII) in the mole ratio of (VI) and/or (VII)/(V) is 0.5-3; 8-25 pts wt of (II) and 82-75 pts wt of the mixt. of (III) and (IV) are mixed and the wt ratio of (III)/(IV) is 55-90/45-10; (II) is cellulose acetate, cellulose propionate, etc; and (III) is acetone, dioxane, ethyl acetate etc. (J53131983) (3pp)

KUBI★ D15 77091 D/42 ★ J8 1040-606
Appts. for flocculating sludge - includes two stirrers, one in a tank and the other in chamber in which agglomerant is added (J5 9.1.79)

KUBOTA KK 04.06.77-JP-065922
(22.09.81) B01d-21/64 B01d-23/72 C02f-01/72
04.06.77 as 065922 (26FW)

Appts. claimed for agglomerating a dirty sludge into flock in a tank. Appts. comprises two stirrers, one disposed in the tank and the other in a mixing chamber formed in an upper space of the tank. In the mixing chamber, the sludge is mixed with an agglomerant and drained in the tank. (J54001961) (2pp)

KUBI ★ D15 77092 D/42 ★ J8 1040-607
Dirty sludge concentrator - comprises central tubular well in concentrating tank with screen to filter off impurities (J5 7.2.78)

KUBOTA KK 22.07.76-JP-088423

(22.09.81) B01d-21/02

22.07.76 as 088423 (26AT)

Appts. for concentrating a dirty sludge contained in dirty water comprises a centre tubular well in a central space of a concentrating tank. A screen is provided in the tank to filter impurities from the sludge. (J53013542) (2pp)

KUBI ★ D15 77093 D/42 ★ J8 1040-608
Circular sedimentation tank - has annular sludge collecting groove formed at bottom of tank and sludge scraper (J5 5.2.79)

KUBOTA KK 05.07.77-JP-081856

(22.09.81) B01d-21/06

05.07.77 as 081856 (26RP)

Circular sedimentation pond comprises an annular sludge collecting groove formed at the bottom of the pond, raw water feed pipe opened in the centre of the pond, sludge scraper, and sludge pump for pumping up the sludge from the groove. (J54015360) (3pp)

MITO D15 29831 C/17 = J8 1040-609
Filter press for waste water - has cells formed between movable board and free head

MITSUBISHI HEAVY IND KK 31.08.78-JP-106800

(22.09.81) *J55034-132 B01d-25/12

31.08.78 as 106800 (20NS)

Filter press for filtering waste waters etc has a press mounted on one of two opposed free heads. A movable board is coupled with the press and there are members for forming filter cells between the board and the other free head. A guide plate laid across the heads to movably support the filter cell members.

The object is to provide a structure allowing a filter cloth stretched on each filter cell to be replaced easily. A link is fixed to each adjacent holder for holding the filter cell forming member. A water feed fitting is engaged with a hole of each link's top end and fitted into each cell forming member. (J55034132) (3pp)

KURK D15 45656 C/26 = J8 1040-610
Device for peeling high viscosity cake from filter press - where auxiliary filter cloths are stretched over main filter plates opened and vibrated to remove cake

KURITA WATER IND KK 10.11.78-JP-138498

J01 (22.09.81) *J55064-811 B01d-25/12

10.11.78 as 138498 (26RH)

A device for peeling cakes having a high viscosity from a filter press comprising main filter cloths hung down from rods supported at the lower ends of springs disposed above filter plates is described where the filter cloths are inclined when the filter plates are opened and vibrated by the springs.

Auxiliary filter cloths are hung down from the outer side of the main filter cloths stretched over the filter plates, through springs. Each auxiliary filter cloth has a central opening and higher liquid permeating rate than the main filter cloth. (J55064811) (4pp)

MARU. ★ D15 77094 D/42 ★ J8 1040-616
Fine oil droplet aggregating appts. for water oil mixt. - comprises laminated corrugated cardboard coated to provide lipophilic surface (J5 4.8.79)

MARUTOMO KOKEN KK(SHIZ-) 21.01.78-JP-005994

J01 (22.09.81) B01d-17/04

21.01.78 as 005994 (26NS)

Device is for aggregating fine oil drops of oil disposed in water. Device comprises corrugated paper cardboard laminated in a casing, through which the water and oil flows.

The cardboard's inner surface is treated to obtain lipophilic properties. (J54099268) (8pp)

SUGI/ D15 24727 C/14 = J8 1040-618
Continuous liq. filtration unit esp. for treating industrial effluent - comprising endless cloth belt driven by rollers, having suction means to dewater sludge and scraper to remove solids

SUGIMOTO T 17.08.78-JP-100594

J01 (22.09.81) *J55027-085 B01d-33/04

17.08.78 as 100594 (26DH)

Appts for continuously filtering liq contg suspended solid particles comprises a filter cloth endless belt passing over two rollers and support rollers and a waste water sprayer above

the belt near one roller.

This avoids clogging of the cloth belt and reduces water required for cleaning the belt. A box is disposed beneath the belt, near the second rollers to dewater the solid particles by vacuum suction. A scraper is in contact with the second roller to scrape solid particles off the belt. A second box below the second roller is in contact with the belt. (J55027085) (4pp)

BURD- D15 81431 X/44 = J8 1040-632
Loop reactor for fluid mixing - has central guide tube and annulus entered through slots after circulating several loops (NL181076)

BURDOSAH B 14.04.75-DE-516284

J02 (22.09.81) *DE2516-284 B01j-14 B01j-19/26

13.04.76 as 040964 (TM)

A loop reactor for mixing of fluids to be used for chemical reactions or for the treatment of sewage and of industrial wastes is fitted with a concentric guide tube which receives the two fluids to be mixed through an ejector at one end. The other end has an embedded annulus which is accessible through a slot after the mixture has circulated in loops through the mixing chamber. A discharge pipe is connected to the annulus.

This loop reactor ensures that the mixture leaves it only after very thorough mixing. The separate components cannot be entrained with the discharge. (J51126380) (6pp)

EMTE/ ★ D15 D/42 ★ SE 8001-516
Phosphorus content redn. in effluents - by adding earth which reacts with phosphorus, followed by sedimentation

EMTERYDO 27.02.80-SE-001516

(28.09.81) C02f-01/28

27.02.80 as 001516 (903WB)

Phosphorous content in water, esp. effluents, is reduced by adding an earth which reacts with the phosphorous. Sedimentation is then allowed to take place. The process is quick and cheap and can be used on a small scale.

VODO = ★ D15 77128 D/42 ★ SE 8008-892
Waste water distribution into sedimentation basins - controlled by varying feed channels sluice positions

VODOKANAL WATER-CAN 28.12.79-SU-853253

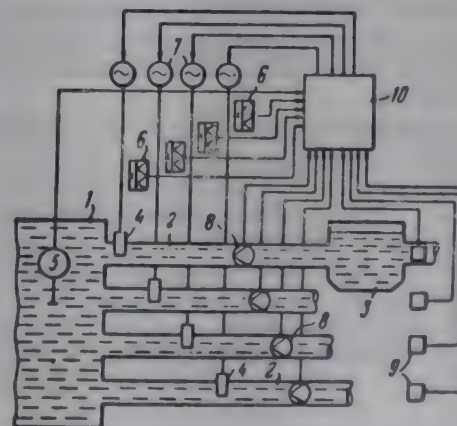
X25 (27.07.81) B01d-21

17.12.80 as 008892 (1444RP)

A procedure for automatically controlling the distribution of sewage to pre-sedimentation basins is described. The volume flow of sewage which is transported to each basin and the concn. of suspended material in the water at the outlet from each basin is measured. The flow of sewage in the channel to each basin is automatically adjusted by moving sliding shutters.

The computer acts so as to minimise the expression (I) where $1/1, 2, 3, \dots, N$. Q_i is the sewage flow in the i th basin. α_i is a constant coefft. which represents the relationship between the concn. of suspended material at the outlet of the i th basin and the sewage flow in the same basin at the same time.

The system provides efficient cleaning of sewage. (provisional Basic previously advised in Week D33). (10pp)



IVLK. ★ D15 D/42 ★ SE 8100-727
Treatment of effluents from pulp bleaching - using ozone to reduce amt. of chlorinated derivs.

IVL-KONSULT AB 30.01.81-SE-000727 (11.08.80-SE-005645)

F09 (28.09.81) D21c-11

30.01.81 as 000727 (903WB)

Effluents from pulp bleaching, which contain chlorinated phenol, guaiacol and/or abietic acid derivs, are treated with ozone. Small amts. of ozone, e.g. 2kg/ton pulp, give reduction in the amt. of chlorinated derivs. of at least 80%.

LIVE = ★ D15 77154 D/42 ★ SU-793-443
Liquid manure dewatering equipment - has filter screen on to which manure is fed, squeezing chamber superimposed and compressed air fed in, with finishing roller

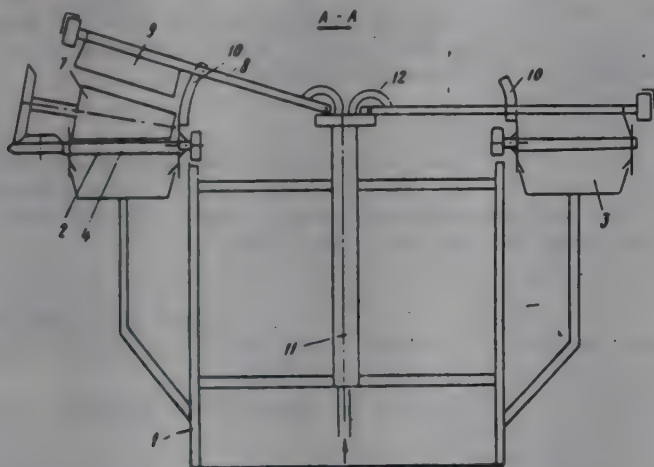
LIVESTOCK MECHN ELE (AGRI =) 30.07.79-SU-805940

P11 (07.01.81) A01c-03 B01d-33/04

30.07.79 as 805940 (29VE)

Equipment for dewatering liquid manure produced on an animal farm, etc., has rotating disc chassis (2) inside a framework (1), plus collecting trays (3) for the filtrate surmounted by filter screens (4), plus means to feed in the original suspension and unload the residues, and an air-duct (8). The quality of the dewatering is increased by providing the equipment with squeezing chambers (9) disposed above the filter screens (4) and fastened to the air-ducts (8). These are made as hollow brackets, so that they can shift their positions in the vertical plane.

The suspension is admitted and uniformly distributed over the filter screens (4). The squeezing chamber (9) moves around the guide (10) and covers a portion of the manure, creating a sealed space, into which compressed air from the duct (8) is fed, causing the filtrate to flow through into the tray (3). The filtration over the squeezing chamber (9) is drawn back from the filter screen. Additional dewatering of the solids is done by operating the conical pressure roller (7), the residue is removed and the cycle is repeated. Bul.1/7.1.81. (3pp Dwg.No.2)



BAND/ ★ D15 77245 D/42 ★ SU-798-106
Di:amino carboxy-butylidene di:phosphonic acid - used in salt or waste water distillation as scale deposition inhibitor

BANDURINA T A 02.10.78-SU-673200

E11 (26.01.81) C02f-05 C07f-09/38

02.10.78 as 673200 (938WD)

Alpha-delta- diamino-delta carboxybutglyidene alpha alpha-diphosphonic acid of formula (I) $H_2NC(R)2-CH_2-CH_2-CH(NH_2)-COOH.2H_2O$ (where R is $P(O)(OH)_2$ gp) is used as scale formation inhibitor in thermal distillation of salt or waste water, contg. scale forming $CaCO_3$ and $CaSO_4$ cpds.

This cpd. is prepd. from N-acetyl-amino-malonic acid diethyl ester by cyano-ethylation with acrylonitrile in presence of sodium alkoxide acid treating prod. with phosphorus trichloride in the presence of phosphoric acid followed by saponification with HCl soln. and prod. decarboxylation.

The above cpds. inhibits sulphate scale deppositon in water heated up to 120 deg.C. Bul.3/23.1.81 (4pp)

MOTE = D15 64161 B/35 = SU-798-118
Graft copolymers of cellulose with vinyl pyridine(s) - made by free radical polymerisation in aq. emulsion made using partially saponified PVA as emulsifying agent

MOSC TEXTILE INST 14.02.78-SU-578783

A11 (A14 A91 D17) (25.01.81) *NL7809-829 C08f-251/02 + C08b-13

14.02.78 as 578783 (835VE)

Grafted copolymers of cellulose with vinyl monomers, used as industrial ion-exchangers, are mfd. in presence of the ferrous iron ions and H_2O_2 system, with and added emulsifier. Monomer conversion is raised without homopolymer formation as follows: the vinyl monomers employed are vinyl- pyridines and the emulsifier is partially saponified polyvinyl acetate (I) contg. 5-15% acetate gps. 100g viscose staple fibre is treated with 0.25% aq. Mohr's salt for 30 min at 20-25 deg.C, pH 4.5-5.5. After washing and de-watering it is added to 2-methyl-5-vinylpyridine (I) emulsion. The latter comprises (in wt.%): (II) 6, (I) emulsifier 0.2, H_2O_2 0.01, water 93.79. The cellulose/emulsion is maintained at 80 deg.C for 120 min and the converted cellulose is then washed and dried. The yield is 218 g, monomer conversion is 70.5%, homopolymer-traces only. Using other emulsifiers e.g. alkamon 0.2, yield is 170 g, conversion is 37.5% and homopolymer amia

WATE = ★ D15 77328 D/42 ★ SU-798-194
Electrochemical prodn. of hydrogen xanthan - by decomposition of mixt. of ammonium thiocyanate soln. and acid, used in waste water purificn.

WATER SAFETY RES(UCOA =) 06.01.78-SU-566212

E14 (23.01.81) C02c-05/12 C07c-161/04 C25b-03

06.01.78 as 566212 (831VE)

The yield of the target product in mfr. of hydrogen xanthane for the purificn. of by-prod. coke plant e.g. effluents is increased by using an electrochemical method for the reaction of aqueous soln. of ammonium thiocyanate with acid.

The process conditions are: temp. 30-50 deg.C, anodic current density 0.05-0.5 A/sq.cm., concn. of initial thiocyanate soln. 3-10 g-eq/litre, ratio of thiocyanate soln. to acid 1 : (0.1-1.5). The electrodes are of graphite. Mineral and organic acids are equally effective. (4pp)

LETE = ★ D15 77334 D/42 ★ SU-798-200
Prepn. of electron-exchanging material esp. fibre - by spinning pyrocatechol and formaldehyde resin fusion

LENGD TEXT LIGHT IN 21.07.78-SU-654857

A21 F01 J04 (A97) (23.01.81) D01f-06/76

21.07.78 as 654857 (114VE)

Prepn. of synthetic fibre by spinning novolac resin fusion gives fibre with electron-exchanging properties by using pyrocatechol-formaldehyde resin (of corresp. molar ratio 1:0.75-0.93 and mol. wt. 800-1200).

The prod. may be used in water-treatment, removal of dissolved O_2 from water, preventing corrosion, purifying waste water, and selective redn. of cation exchanger and as catalyst and complexing agent. (3pp)

SILI = ★ D15 77369 D/42 ★ SU-798-358
Centrifugal pump for fibrous suspensions, e.g. farmyard manure - has fixed and rotating knives at entry, screw and centrifugal wheel

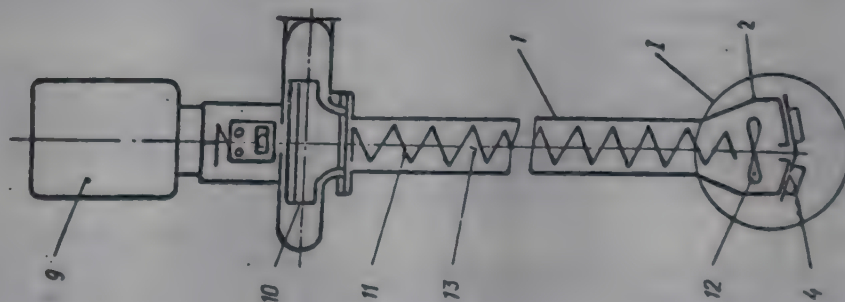
SIBE LIVESTOCK INST 01.03.78-SU-585381

P11 Q56 (23.01.81) A01c-03/04 F04d-07/04

01.03.78 as 585381 (29VE)

Centrifugal pump for transferring media contg. fibrous inclusions, e.g. manure, has body (1) contg. the pumping unit (2), in entry of which stationary and rotating (4) knives are positioned coaxially. Safety is increased as a result of making the knives self-cleaning, with the stationary knives positioned inside the movable knives. The rotating knives also have curved cutting edges and projections on the outer surfaces.

The electric motor (9) rotates the shaft (13) on which is the wheel (10) and the smaller wheel (12), the screw (11) and the knives (4). As the medium is sucked into the pump the fibrous material passes between the two sets of knives and is delivered to cutters. The projections on the outer surfaces of the rotating knives guarantees very good mixing of the heterogeneous medium and mincing of the fibrous material. The wheel (12) moves the medium to the screw (11) which conveys it to the centrifugal wheel (10), which feeds the manure to the point of discharge. Bul. 3/23.1.81. (3pp Dwg.No.1)



TAKF D15 64526 V/37 = SU-799-638
Stable basic aluminium salt soln. - by mixing soln(s) to form gel which resolves itself into the soln.

TAKI FERTILIZER MFG KK 19.04.73-JP-044475

E33 (23.01.81) *BE-813-805 C01f-07/68

18.04.74 as 019511 (WD)

Soln. of $Alm(OH)nX_3m-n-2k(SO_4)k$, where X is Cl or NO_3 , k, m and n are positive numbers, 3m is greater than $n+2k$, basically $(n/3m \times 100)$ is 30-70% and h/m is 0.01-0.3 is made by mixing a water-soluble sulphate or a soln. contg. SO_4 , a soln. contg. Al and X, and an alkaline aluminate soln., at less than 40 deg.C, to produce a gel which is maintained at 50-80 deg.C, so that it can resolve itself into a soln. of a basic Al salt. Product is useful for water treatment. Bul. 3/23.1.81. (3pp)

ALAB/ ★ D15 77477 D/42 ★ SU-799-780
Removal of suspended particles from water - has ground sagger waste acting as filter material

ALABUSHIN A N 09.04.79-SU-772381

(30.01.81) B01d-15 B01d-39/20

09.04.79 as 772381 (132MI)

The process comprises passage through filter material based on fireclay. To increase efficiency, the filter material is ground sagger waste.

Thus, water is reduced from 500-25000 to 0.5 mg/l. of suspended matter without the need for use of coagulant. The filter material has 15% water absorption, 0.95- 1.01 g/cm³ bulk gravity, and is of the 0.8-1.6 mm. fraction. Bul. 4/30.1.81. (2pp)

MAKS/ ★ D15 77479 D/42 ★ SU-799-782
Liquids e.g. waste water filter - has variable cross/section fibrous material with matching corrugated surfaces in cone and element assembly

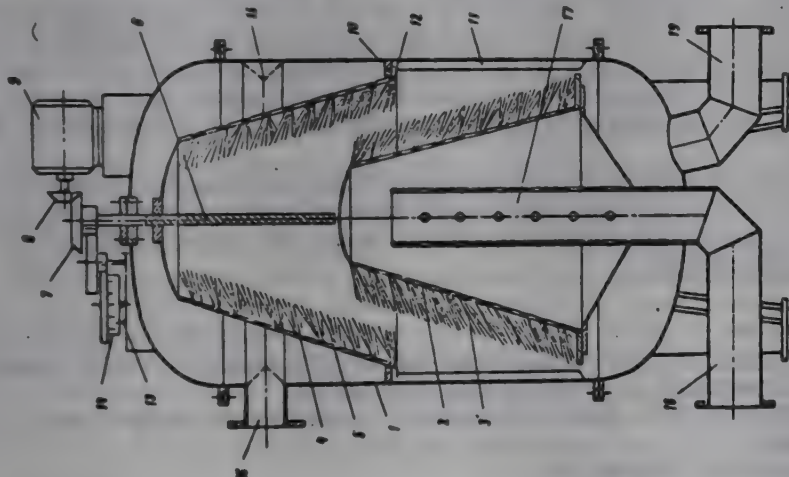
MAKSIMOV G M 06.04.79-SU-747268

(30.01.81) B01d-25/24

06.04.79 as 747268 (132VE)

The filter, used in purificn. of natural and waste water, comprises a casing (1) housing a filter element (2) made as a truncated cone having fibrous material (3) with a contact cone (4) free to move over it. To increase efficiency, supplementary material (5) is fitted inside the cone (4) of larger cross-section than the element material (3).

The materials (3,5) have corrugated surfaces, the hills of material (5) being opposite the valleys of element (3) and vice versa. The filter capacity is increased by a factor of 2.0-2.5, the cone (4) being raised for regeneration. The pore size of the liquid inlet side of the filter bed is increased, with inlet via pipe (16) and outlet via tube (17), and the fine particles being trapped on the outlet side. Bul. 4/30.1.81. (6pp Dwg.No.1)



MELN/ ★ D15 77497 D/42 ★ SU-799-801
Liquids aerator for microbiological synthesis, etc. - has forward bending of rotor blades, and annular gas distribution manifolds outside stator

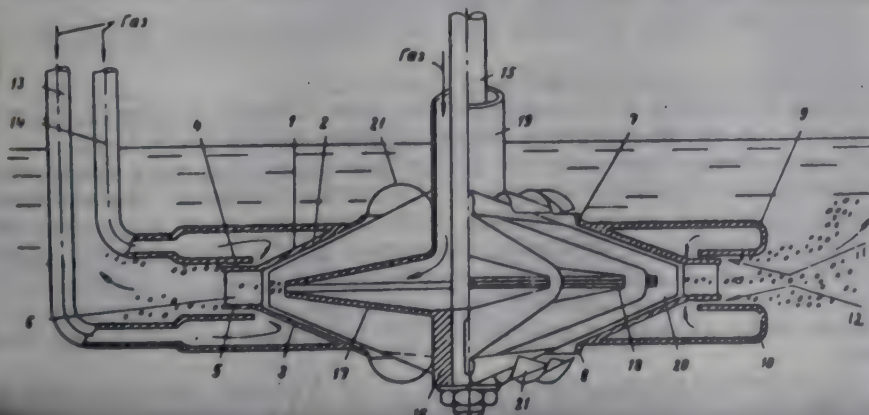
MELNIKOV I A 05.04.79-SU-747034

(30.01.81) B01f-05/16 C12b-01/14

05.04.79 as 747034 (132VE)

The aerator comprises a stator (1) with axial pipes and made as two truncated cones (2,3) with plates (6) linking their main bases, together with a coaxial internal rotor (17) made as a hollow perforated disc with a gas inlet pipe and blades (20). To increase the gas saturation, annular gas distribution manifolds (9,10) flank the exterior of the cones, and the blades have forward-bent edges (21) in the axial stator pipes.

The bent edges (21) of the blades drive the liquid into the stator and to the rotor periphery, to draw in the gas entering the disc via pipe (19). The high velocity high-pressure liquid streams entering the zone between flanges (4,5) thus promote effective dispersion



of the gas supplied via mains (9,10) and slits (11,12). Bul. 4/30.1.81. (3pp Dwg.No.1)

UBEI D15 59029 C/34 = US 4291-549
Injecting one liq. into another liq. - esp. for desalination of sea-water into which liq. refrigerant is injected so sea-water is cooled by evapn. of the refrigerant

UBE INDUSTRIES KK 07.02.79-JP-012277

(29.09.81) *DE3000-883 B01d-09/04

19.12.79 as 105014 (006TM)

A first liquid is dispersed as minute droplets into a second liquid from nozzles projecting from a rapidly-rotating hollow drum submerged in the second liquid. Pref. the first liquid is vaporisable refrigerant e.g. butane which is dispersed e.g. into brine as droplets no larger than 300 microns to form ice crystals.

Rugged desalination plant of high efficiency and without suck-back at the nozzles. (5pp)

CBRI ★ D15 77553 D/42 ★ US 4291-550
Crystallising or freezing out component from mixt. - using cooled fluidised bed of metal balls so as to prevent component deposition on exchanger wall

CHICAGO BDGE & IRON CO 14.02.80-US-121495

J07 (29.09.81) B01d-09/04

14.02.80 as 121495 (1050JB)

A component of a mixt. composed of a liq. and a dissolved or suspended solid is crystallised or frozen out by passing the mixt. upwardly through a column contg. a mass of metal balls having a specific gravity greater than the mixt. The column has a cooling jacket through which a cooling liq. e.g. aq. ethylene glycol, flows so as to cool the mixt. to a temp. at which the component crystallises or freezes out. The velocity of flow of mixt. through the column fluidises the metal balls into turbulent action to scour the column inside surface and so prevent build up.

Useful for producing fresh water from salt water, and concentrating fruit and vegetable juices, where the sepd. component is water, as ice. (4pp)

AMCO- ★ D15 77598 D/42 ★ US 4291-980
Aq. suspension of styrene-di:vinylbenzene copolymer - used as standard in determination of water turbidity

AMCO STANDARDS INT 14.08.78-US-933140

A89 S03 (29.09.81) G01j-01/02

14.08.78 as 933140 (928AS)

Suspension (I) for measuring the turbidity of water comprises a suspension in turbidity-free water of spherical particles of pure styrene-divinyl benzene copolymer having dia. of 0.2-1 micrometre and which exhibits pure particle light scatter.

Also claimed is the method of determining the turbidity of water by (a) forming (I); (b) placing in a transparent cylindrical vessel; (c) exposing the vessel side wall to a perpendicular light source; (d) reading the light scattered perpendicular to the incident light; (e) performing steps (c) and (d) on a vessel contg. water of unknown turbidity; and (f) comparing the light scattered in (d) and (e).

The standard suspension (I) is non-toxic, has a long shelf life, is stable at low concns. and has a lower loss in light scatter due to sedimentation than formazin and other prior materials. (6pp)

FARB D15 64527 C/37 = US 4292-043
Ammonium sulphate contg. waste water treatment - by concn., crystalline ammonium sulphate sepn., mother liquor crystallisation and ammonia treatment

BAYER AG 07.09.79-DE-936153 (15.02.79-DE-905779)

A41 C04 E35

+ B01d-09/02

21.01.80 as 113893 (963PW)

Working-up ammonium sulphate-contg. effluent contaminated with organic cpds. comprises (1) evaporating and crystallising the effluent to produce water vapour which is removed, a conc. liq. and a crystal suspension, (2) thickening the suspension to obtain solid (NH₄)₂SO₄ which is removed and liq. which is recycled to an earlier step; (3) passing conc. liq. to a crystalliser; (4) introducing NH₃ into crystalliser to decrease solubility of (NH₄)₂SO₄; (5) thickening resulting ammoniacal crystal suspension to give (NH₄)₂SO₄ solids which are removed and ammoniacal liquor which is then distilled to recover NH₃.

Used for treating e.g. effluent from epsilon-caprolactam prodn. by reaction of cyclohexanone and hydroxylammonium salts. (5pp)

CAFF- D15 53610 D/30 = US 4292-121
Solid-liq. sepn. through liq. vaporisation and condensn. - in module which vaporises liq. on introduction and conducts vapour to condenser for collection (J5 1.5.81)

CAFFES TRUST (CAFF) 21.09.79-US-077555

C04 H01 J01 (29.09.81) *EP--31-872 + B01d-01/16

21.09.79 as 077555 (1376TM)

Hollow chamber for separating liquids and solids is maintained at a constant evacuated pressure to keep a saturated-vapour atmosphere of the liquid component, and a separate system to initiate flow of the vapour to a condenser at the outlet end. The chamber has a circular cross-section.

Heat from the condenser is pref. radiated to the inlet. (17pp)

PIEP/ D15 93632 X/50 = US 4292-135
Multistage evapn. of salt water - using valves operated externally to control concentrate flow between stages

PIEPER G A 20.05.75-NL-005869

J01 (29.09.81) *NL7505-869 B01d-01/30 B01d-03/06

02.10.79 as 081142 (+ 11.5.76, 6.2.78-US-685180, 875565) (006AS)

Vertical multistage expansion evaporator, for water purification, comprises several superposed compartments with common floors and ceilings having communication passages each with its own control valve, but with all valves coupled to a common actuator extending to the evaporator exterior, or to individual tubular coaxial actuators.

Each compartment has an upstanding wall dividing it into liquid and vapour sections. Pref. heat-exchange tubes with internal fluidised beds pass through the vapour sections vertically. (9pp)

SPIE- D15 33200 C/19 #US 4292-136
Desalination of sea-water etc. by heat of solar radiation - which vaporises water in horizontal channel and condenses vapour in adjacent channel

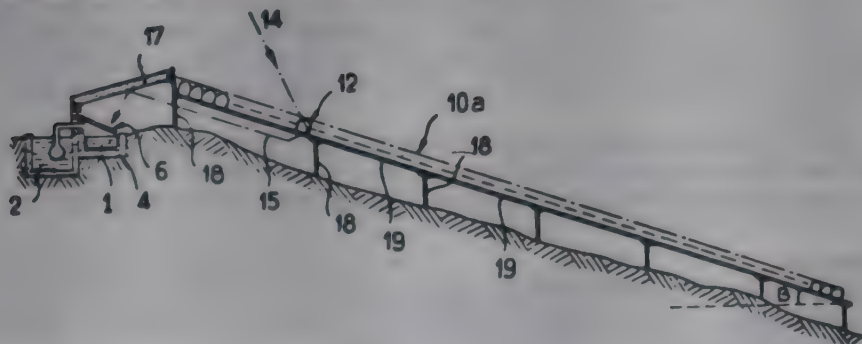
SPIE-BATIGNOLLES (CLAV) 26.07.78-FR-022152 (28.08.79-US-070498)

J01 X15 + Q74 (29.09.81) *FR2431-994 + B01d-01

28.08.79 as 070498 (1358JB)

A solar-powered desalination system has two adjacent canals fed with sea or brackish water, and a greenhouse type structure over one canal (1) to vaporise water and with an inclined top panel (6). A condenser communicates with the structure and is mostly immersed in the second canal (2) which acts as a cold source.

A roof (17) is located above the structure and has a reflecting lower surface inclined to the horizontal. Panels (10a) concentrating solar rays extend longitudinally away from the roof and each has a cell with transparent top surface and a reflecting surface directing rays (14) towards the roof reflecting surface to pass into the structure. (7pp)



KING/ ★ D15 77663 D/42 ★US 4292-163
Electrolytic treater for waste water - with prim. rotating electrode carrying film of water through gap between electrodes

KING A S 16.01.80-US-112549

J03 X25 P41 (29.09.81) B03c-05/02 C02f-01/46

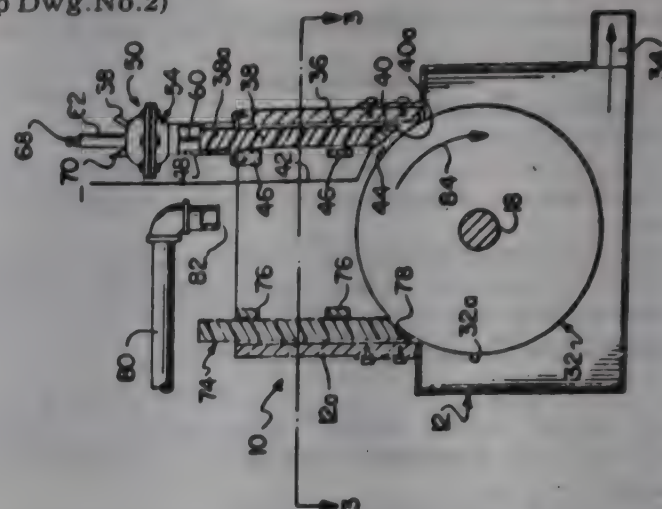
16.01.80 as 112549 (295RH)

Liqs. are electrically treated using an appts. which comprises a first cylindrical electrode mounted for rotation about a horizontal axis coincident with the longitudinal axis of the electrode. Liq. is supplied to the upper peripheral surface of the electrode.

A second stationary electrode has a surface spaced from that of the first electrode. The two electrodes are held with their opposed surfaces a fraction of an inch apart to define a restricted gap which receives the liq. and reduces it to a thin layer to concentrate the effect of the electrodes. An electric field is produced across the gap. A stripper engages the surface of the rotating electrode at a point downstream of the gap to remove adhering liq. and other materials.

Used for treating waste water with an electric field which causes particulate matter in the liq. to flocculate and subsequently settle out. The electrocatalysis which occurs at the electrodes also helps to break down the effect on the waste

liq. (5pp Dwg.No.2)



OMNI- ★ D15 77671 D/42 ★US 4292-175
Electro-catalytic sewage treatment unit - with surge tank to which sea water is delivered so unit can operate continuously

OMNIPURE INC 03.08.79-US-063581

(29.09.81) C02f-01/46

03.08.79 as 063581 (295RH)

A compact unit for the treatment of waste water includes an elongate electrocatalytic cell contg. between an inlet and an outlet closely spaced, vertical, parallel electrodes. The waste water flows upwardly through the cell.

The unit also includes a surge tank for the gravity sepn. of solids and for evening out the flow. There is a vent line from the surge tank. The tank discharges through a macerator to the electrocatalytic cell. Electrolyte is added to the water before entry to the cell. Water is introduced to the surge tank to maintain a relatively constant minimum flow so as to allow continuous operation of the cell even when there is no waste flow. The cell discharges to a closed effluent vessel with a stand pipe with a vent opening. A negative pressure is produced in the stand pipe.

Unit is designed for use on board ships. The discharge effluent is low in suspended solids and free of pathogenic organisms so that it may be directed into a body of water without risk of pollution. (7pp)

STAD ★ D15 77672 D/42 ★US 4292-176
Activated sludge treatment of waste water - with addn. of activated carbon with high surface area

STANDARD OIL CO (IND) 14.08.80-US-178139 (08.12.76-US-748553)

(29.09.81) C02f-03/08

14.08.80 as 178139 (295HM)

In an activated sludge process, a contaminated water is contacted with activated sludge in a first stage for a period to biologically degrade the contaminants. In a second stage the decontaminated water is sepd. from the activated sludge. A first portion of the sludge is recycled while a second portion is treated further.

The contaminated water is pretreated before entering the first stage so that it contains less than 20 ppm of hydrocarbons and less than 20 ppm solids. 1 to 40 ppm activated carbon with a zeta potential of at least -10 millivolts, is introduced into the water so that the carbon is present in the first and/or second stage. The average age of the sludge in the first and second stages is maintained in excess of ten days.

The method may be used for treating municipal or industrial waste. The method economically uses the activated carbon for the efficient treatment of the waste. (13pp)

ESSO ★ D15 77676 D/42 ★US 4292-181
Liq. membrane process for selective ion transfer - useful for removing metals from aq. waste streams

EXXON RES & ENG CO 20.06.80-US-161602 (05.05.70-US-036686)

J01 M25 (29.09.81) B01d-13 C02f-01/28

20.06.80 as 161602 C.I.p 3637488, 3617546, 3779907 (+ 5.5.70, 25.8.71 9.10.73, 23.3.76, 30.10.78-US-036686, 174990, 869707, 9559)

Liq. membrane process for removing ions from soln. comprises contacting a feed soln. contg. ion I with an emulsion, the external phase of which is immiscible with both the feed soln. and the internal phase and contains dissolved in it a complexing agent which forms an external phase-soluble complex A with ion I, so that ion I diffuses through the external phase to the internal phase, until at least a portion of ion I is removed from the feed soln.

The internal phase contains ion II, at a concn. greater than in the feed soln., which converts complex A to a complex B with ion

which remains chemically identical to that in which it exists in the feed soln., complex B also being soluble in the external phase, so that ion II diffuses from the internal phase into the feed soln.

The process is applicable to removal of metal ions from aq. waste streams and solns.; such as those resulting from hydrometallurgical operations, esp. removal of Cu from dil. leach liquors obtd. by treating Cu-contg. minerals or their residues with dil. aq. acid. Even small amts. of metallic impurities can be cleaned up from dil. effluents and conc. selectively in the emulsion internal phase. (7pp)

DAIL **D15** 10983 B/06 = US 4292-417
Semipermeable membrane for sepn. of (in)organic cpds. from brine etc. - prepd. by partial substituting of hydroxy gps. in polyphenylene deriv. polymer and shaping water insoluble polymer obtd.

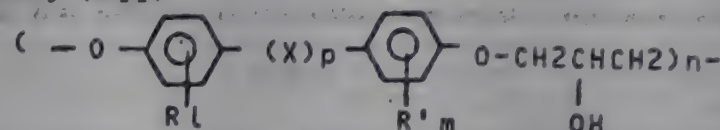
DAICEL LTD 01.06.77-JP-064427

A88 J01 (29.09.81) *J53149-181 + C02f-01/44 C08g-59/14
20.09.79 as 077202 C.I.p.4200726 (+ 30.5.78-US-910877) (937TM)
Water insoluble semipermeable membrane is prepd. by immersing a semi permeable membrane of polymer of formula (I) in aq. soln. or organic solvent soln. contg. crosslinking agent and under effective conditions crosslinking the polymer.

The crosslinking agent is selected from melamine and urea resins, benzoguanamine resins, amino resins with benzoguanamine resins, aldehydes, di- or tri-functional epoxides and alkaline earth divalent cations.

In (I) R and R' are halogen, nitro, methyl or ethyl; X is divalent gp. chosen from methylene, ethylene, isopropylidene, -o-, -CO-, -S-, -SO- or -SO₂-; n is 100-1000; l and m are 0-4, p is 0 or 1; 15-90% of D gps. are sulphoric acid gps. or salts thereof with alkali metal, NH₃ or N-contg. basic organic cpd., the balance of D gps. being hydroxyl gps.

The prod. is a reverse osmosis membrane that is not swollen by organic solvents and with improved mechanical properties and durability. (20pp)



See Also

D13 CA 1108920 D13 US 4292051

D16: FERMENTATION INDUSTRY

HEND/ ★ **D16** 75751 D/42 ★BE-889-033
Domestic refuse fermentation plant - has centralised remote controls for charging and discharging methane and heat producing reactors

HENDRIKS P J 01.06.81-BE-889033

E17 P43 (01.10.81) B09b C12m

01.06.81 as 889033 (1190RH)

The arrangement is intended for producing methane gas by fermentation of organic domestic refuse and recuperating heat generated in the process. It uses the principle described in BE-887957 but differs in that the operation is automated.

The complex comprises two or more reactors into which pre-sorted refuse is deposited by overhead cranes via hermetically closable doors. Already pre-sorted refuse in plastic bags pass a bag cutter before being introduced. A water pump is connected to a line with valves to inject water into the reactors. Developed gas rises via gas lines for storage in tanks on the roof of the complex. Digested refuse is removed from the bottom of the reactor via motorised dampers and pipes. All operations are controlled from a central point.

Automatically operating plant is provided with centralised remote control. (9pp)

ELET. ★ **D16** D/42 ★BR 8001-755
Alcoholic fermentation for distilleries

ELETROMETAL JAUENSE 24.03.80-BR-001755

(29.09.81) C12p-07/06

CEPE. ★ **D16** D/42 ★BR 8001-864
Sepn. and concn. of alcohol - in fermentation of sugar or molasses solns.

CEPED CENT PESQUISA 27.03.80-BR-001864

(29.09.81) C12p-07/06

BERA/ ★ **D16** D/42 ★CS 8008-659
Nucleoside(s) prepn. by nucleosidase reaction

BERANEK J 10.12.80-CS-008659

B03 (B02) (10.09.81) C07h-19/04

SARO/ ★ **D16** D/42 ★CS 8101-541
Tubular heating body fitted in head

SAROUN Z 04.03.81-CS-001541

(10.09.81) C12c-07/06

SARO/ ★ **D16** D/42 ★CS 8101-542
Pulp and slurry pan

SAROUN Z 04.03.81-CS-001542

(10.09.81) C12c-07/06

YERO/ ★ **D16** 75841 D/42 ★DD-149-710
Reactivation of appts. used in immunological analyses - by coating the surface with polymer e.g. polystyrene

YERO J L F 14.03.80-DD-219667

A06 B04 S03 (22.07.81) G01n-31/02 G01n-33/48

14.03.80 as 219667 (280AS)

In a new procedure for the activation of the surfaces of solids for immunological analyses (esp. radioimmunoassays and enzyme-

immunological tests), the surfaces are activated by coating with plastics, and this activation is repeated as often as desired.

The aeting can be effected by immersing in or spraying with a solution of a plastic in an organic solvent or by carrying out a polymerisation on the surface of the solid. The procedure is particularly suitable for analytical apparatus such as multipipettes, multiple photometers, diluters, washing devices, etc.

The possibility of repeated reactivation of the same piece of equipment by simple re-coating makes immunological analyses more economical. (6pp)

OEHL/ ★ **D16** 75931 D/42 ★DE 3012-829
Red wine mash fermentation tank - with mixing screw conveyor designed as heat exchanger

OEHLER S 02.04.80-DE-012829

(08.10.81) C12c-07/06 C12g-01

02.04.80 as 012829 (39RH)

A fermentation tank for red wine mash is a cylindrical vessel with a revolving vertical hollow shaft with spiral mixing and conveying elements. A hot or cold medium can be circulated through the shaft and the spiral elements for a heat exchanger action. The pref. design for these elements is a right-hand small dia. inner screw and a left-hand large-diameter outer screw.

Such a tank can be manufactured at low cost and is easy to clean. Its conveying and mixing action functions satisfactorily and gently even with different degrees of filling. (16pp)

EICK. ★ **D16** 76003 D/42 ★DE 3040-005
Enzyme-stabiliser mixt. reducing inactivation after freeze-drying - contg. cane sugar and bovine or human serum albumin pref. in aq. soln.

EICKEN CHEMICAL CO 31.03.80-JP-042470

(08.10.81) C12n-09/96

08.10.81 as 040005 (200)

Enzyme-stabiliser mixt. contains cane sugar and bovine- or human serum albumin. The stabiliser mixt. is pref. used as an aq. soln. in which sugar:albumin wt. ratio is 1:0.4 to 1:2.5 (1:1 to 1:2.5) esp. 1:1 to 1:2, at a cane sugar content of 0.5-10 (1-10) esp. 2.5-10% (wt./vol.). An opt. freeze-dried aq. enzyme-contg. compsn. stabilised with the sugar- and albumin-contg. mixt. is claimed.

Enzyme-contg. compsns. are used (i) in clinical analysis, (ii) as standard enzyme compsns. and (iii) as catalyst. Enzyme compsn. inactivation after freeze-drying and storage is reduced. (22pp)

PLAC **D16** 87449 V/51 = DS 2326-537
Chemical transportation of signals - through medium capable of forming a closed chemical-reaction-circuit

MAX PLANCK GES WISSENSCH 24.05.73-DE-326537

B04 E19 J04 (S03 W02 W05) (08.10.81) *DE2326-537 G08c-23 + B01j-19 H03f-21

24.05.73 as 326537 (047WB)

Chemical signal transfer process comprises activation by light, pressure, temp., electric field or chemical components of a reaction system which responds sufficiently rapidly, opt. followed by secondary reactions and/or regeneration and/or recycling of component. Suitable systems are (i) oxidative

decarboxylation of citric and/or malonic acid with bromate in the presence of Ce ions (as catalyst) and acid ferrous soln.; (2) H₂O₂ and iodate in aq. H₂SO₄; (3) H₂O₂ and iodide; (4) horse radish peroxidase and lactoperoxidase in the presence of a reductant (pref. pyridine nucleotide, indolyl acetate or dihydroxy fumarate) and oxygen; (5) yeast extract glycose and maltose, trehalose or hexose-6-phosphate; or (6) mitochondria suspensions and ionophoretic antibiotics, esp. valinomycin.

The reaction prods. can be utilised to supervise further processes. The process is esp. applicable in photography and computer science. PS (6pp)

MFAH D16 46392 W/28 = DS 2364-656
Compost heap turning machine for towing by tractor - has simple chassis and turning roller driven from tractor

MASCH FAHR AG 24.12.73-DE-364656

(08.10.81) *DE2364-656 C05f-09/02

24.12.73 as 364656 (39PW)

Rows of shallow triangular stacks of compost are turned over by a wheeled portal frame which carries a horizontal screw conveyor with two halves of opposite hand and spill plates to shape the turned over compost. The screw conveyor shaft has at each end a bevel gear and a coupling for an extension shaft from the power-take-off of a tractor. Two tow bars, attached to the frame and to the tractor, allow the latter to travel beside the old stack as the screws do the turn-over work.

This is a low-cost attachment of great versatility which does not tie down a tractor outside the turn-over periods. PS (5pp)

YAMS D16 74108 X/40 = DS 2365-894
Polynucleotides enzymatic prodn. - by polymerizing nucleoside diphosphates with polynucleotide phosphorylase in the presence of divalent metal cations

YAMASA SHOYU KK 05.07.73-DE-365894 (00.00.73-US-334314)

B04 (08.10.81) *DE2365-894 + C12p-19/34

05.07.73 as 365894 Div.ex.2334314 (913TM)

Biotechnical method is described for producing polynucleotides by polymerising the corresp. nucleoside diphosphate by means of polynucleotide-phosphorylase in the presence of divalent metal cations.

Microorganism *Achromobacter* sp. KR 170-4 (ATCC 21,942), with a high and easily extractable polynucleotide-phosphorylase activity is either (a) conventionally fermented and the culture without sepn. of the cell mass is incubated in the presence of Mg²⁺ and Mn²⁺ and a nucleoside diphosphate, or (b) conventionally fermented, the cell mass removed and the cell mass incubated as in (a), or (c) conventionally incubated, the cell mass removed, the cells ruptured and a crude cell extract or a partially purified polynucleoside phosphorylase prepn. (with the removal of nucleoside diphosphate decomposing enzyme if present in significant amt.) is suspended in an incubation soln. and incubated as before.

Pref. incubation is effected at 0-80 deg. C at pH 6-12. PS (5pp)

ASAH D16 41752 C/24 = DS 2946-898
Plasminogen activator prodn. by cell culture - e.g. of kidney cells, in aqueous nutrient medium contg. fumaric, malic, succinic or glycolic acid

ASAHI KASEI KOGYO K 24.11.78-JP-144234

B04 (08.10.81) *DE2946-898 A61k-35/12 A61k-37/02 C07g-07

21.11.79 as 946898 (913TM)

Plasminogen activator is produced by mixing animal cells (which have plasminogen activator-forming potential) with an aq. nutrient contg. one or more organic acids from fumaric, malic, succinic or glycolic acid. The total acid concn. is 1-120 mMol/l.

Cells used can be obtd. from a wide range of sources e.g. from various parts of a human foetus, embryo, adults, from various monkeys; kidney cells are pref. PS (7pp)

COMM. D16 82444 C/46 #EP --36-915
Anaerobic slurry digester with capping - of interlocking elements with ballast tanks and gas release valves

COMMONWORK ENTERPRI 29.06.77-GB-027295 (28.03.80-EP-300972)

Q74 + P11 Q34 (07.10.81) *US4230-580 + A01c-03/02 B65d-88/76 C02f-03/28

28.03.80 as 300972 (NS) (E) GB1411659 GB-471003 DS-640367 GB-518353 E(AT BE CH DE FR IT LU NL SE)

An anaerobic slurry digester is capped by a set of elongated flanged members. Between pairs of caps are elongate tanks which rest on the cap flanges and serve as ballast when filled with water. The cap rises under gas pressure generated by the slurry. The caps are domed and excess gas is released from the domes.

The cap is of modular construction and can be tailored to fit a range of slurry tanks.

In an example, each cap element (ii) is semi-cylindrical and is terminated by horizontal flanges. Elongated water tanks rest on the flanges to bias the cap downwards. Pref. the cap is made of

concrete or plastic and sections may be removed to skim the slurry. Pref. the slurry tank has a lining of glass fibre reinforced acrylic-modified polyester resin e.g. 60% ester, 20% methylmethacrylate and 20% styrene. (25pp)

NORD ★ D16 76051 D/42 ★EP --36-895
Vaccine of modified live *Pasteurella multocida* of haemolytica - prepd. by cultivation in presence of acridinium salt

NORDEN LAB INC 31.03.80-US-135828

B04 C03 (07.10.81) A61k-39/10 C12n-15

16.03.81 as 101921 (916BZ) (E) GB2003029 US4169886 US4171354

2.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Modified live *Pasteurella multocida* (ATCC 31610) and *P. haemolytica* (ATCC 31612) bacteria suitable as a vaccine are prepared by passaging virulent *P. multocida* (ATCC 31609) or *P. haemolytica* (31611) in the presence of an acridinium salt. The final vaccine may contain a mixture of the two modified bacteria.

The bacteria is passaged up to 40 times on tryptose broth supplemented with thiamine broth at 37 deg. C. The acridinium salts may be 3,6-bis-dimethylamino acridinium chloride, 2,8(3,6)diamino-10-methylacridinium chloride and 2,8(3,6)-diamino acridinium chloride at concentrations of 0.1 micro.g./ml to about 150 micro.g./ml.

Used for preventing 'shipping fever' in cattle, sheep and pigs without serious side effects. (31pp)

TAKE ★ D16 76091 D/42 ★EP --37-110
Hormone enzyme-immunoassay - using antibody recovered by absorption on peptide linked inert carrier and conjugated with stabilised beta-D-galactosidase

TAKEDA YAKUHIN KOGY 14.01.81-JP-004507 (31.03.80-JP-042484)

B04 S03 (07.10.81) C07c-103/52 C07g-07 C12n-09/96 G01n-33/54

28.03.81 as 102360 (916AT) (E) No-citns. E(BE CH DE FR GB IT LI NL SE)

Specific antibodies are prepd. by contacting an antibody contg. body fluid with the corresp. antigenic peptide linked to an insoluble carrier and then eluting the absorbed antibody. The obtd. antibody is used in enzyme immunoassay. Beta-D-galactosidase or its conjugate with an immunoactive substance is stabilised by lyophilising its aq. soln. in the presence of a sugar or sugar alcohol. This is also used in enzyme immunoassay.

Human chorionic gonadotropin (HCG) is assayed by enzyme immunoassay using an antibody prepd. as in (A) in which the peptide is H-Ala-Pro-Pro-Ser-Leu-Pro-Ser-Pro-Ser-Arg-Leu-Pro-Gly-Pro-Ser-Asp-Thr-Pro-Ileu-Leu-Pro-Gln-OH. The enzyme can be beta-D-glucor alkaline phosphatase. Alternatively, when the peptide is H-Asp-Ser-Arg-Arg-Ala-Gln-Asp-Phe-Val-Gln-Trp-Leu-Met-Asn-Thr-OH pancreatic glucagon may be assayed.

Method can be used for diagnosis of pregnancy or HCG dependent tumours. (79pp)

ICIL ★ D16 76165 D/42 ★EP --37-273
Genetically modified autotrophic or methylotrophic bacteria - useful for biosynthetic prodn. of metabolite(s) such as hormone(s)

IMPERIAL CHEM INDS LTD 28.03.80-GB-010413

B04 (07.10.81) C12n-01/20 C12n-15 C12p-21/02

27.03.81 as 301360 (1248BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

(A) Autotrophic or methylotrophic bacterium comprising foreign DNA and capable of producing as a metabolite a prod. that in its unmodified state the organism would not produce is new.

(B) Autotrophic or methylotrophic bacterium comprising DNA capable of expression in the form of a metabolite that is biologically active in a different organism is new.

(C) Introduction of foreign DNA into an autotrophic or a methylotrophic bacterium is effected by using a plasmid of one of the incompatibility gps. N, P, Q or W, carrying the genetic material that it is desired to introduce into the bacterial cell.

(D) A composite plasmid obtd. by cleaving plasmid R300B and effecting ligation in presence of genetic particles derived from a different plasmid is new.

The foreign DNA is pref. eukaryotic DNA and is suitably mammalian, esp. human, DNA. The bacterium is pref. modified methylotrophic methylotrophus, but other known methylotrophs and autotrophic bacteria may be modified. The known techniques are used in the formation of the composite plasmid and for introducing DNA into the bacteria.

The modified bacteria are useful in the biosynthetic prodn. of the metabolites, which include insulin and human growth hormone as well as other hormones and antibiotics such as penicillins, the metabolites pref. being biologically active in mammals. (36pp)

MERI ★ D16 76189 D/42 ★EP -37-330
 Prepn. of hepatitis B surface antigen in vitro - by growing colonies selected from cloned human hepatoma cell line
 MERCK & CO INC 27.03.80-US-134353
 B04 (07.10.81) A61k-39/29 C07g-07 C12n-05
 26.03.81 as 400482 (1248BZ) (E) No-Citns. E(BE DE FR GB IT NL SE)

Prepn. of hepatitis B surface antigen (HBsAg) in vitro involves cloning a human hepatoma cell line that sheds HBsAg and then selecting colonies having an enhanced ratio HBsAg prodn. to glucose consumption; and finally culturing the selected colonies under conditions that permit the shedding.

The cell line is pref. ATCC CRL 8024. The ratio of HBsAg prodn. to glucose consumption is pref. at least 3:1 esp. 6:1. The cloning is effected by means of a surface having a single cell from the hepatoma cell line attached to it. The cloning may also be effected by adding to a receptacle in which cells are to be grown, a cell suspn. having an average of below 1 cell per vol. of cell suspn. added.

The HBsAg is effective as a vaccine against hepatitis B. It is obtd. in high titre and purity. (8pp)

INSP ★ D16 76229 D/42 ★FR 2477-417
 Antigenic peptide(s) prepd. from influenza virus - by virus purificn., proteinase treatment, extn. of haemagglutinin, digestion by trypsin and purificn. of antigenic peptide
 INST PASTEUR 07.03.80-FR-005123
 B04 (11.09.81) A61k-37/02 A61k-39/14
 07.03.80 as 005123 (395BZ)

Process for the preparation of antigenic peptides from the surface glycoproteins of influenza viruses (all strains of influenza virus, including animal and human) comprises purification of the virus; treatment of the virus by a proteinase for separation of the neuraminidase; extraction and purification of the natural haemagglutinin; digestion of the haemagglutinin by trypsin and separation and purification of the antigenic-peptide fractions.

Used for preparation of influenza vaccines with increased immunogenic activity. (18pp)

UNIX ★ D16 76250 D/42 ★FR 2477-571
 Fermentative ethanol prodn. using *Zymomonas mobilis* - on carbohydrate contg. medium, with recycle of cells (BR 8.9.81)
 UNISEARCH LTD 15.05.80-AU-003561 (05.03.80-AU-002655)
 E17 (11.09.81) C12p-07/14
 04.03.81 as 104337 (1251BZ)

Prodn. of ethanol from a medium contg. fermentable carbohydrate comprises continuous cultivation of *Zymomonas mobilis*; periodic or continuous removal of a portion of the medium (and its replacement by fresh medium) and removal of *Z. mobilis* cells from the withdrawn portion.

These cells are recycled to the fermenter and the ethanol in the withdrawn medium is recovered. Pref. the carbohydrate is glucose, fructose or sucrose, and specified *Z. mobilis* strains are CP4 (ATCC 31821), ZM 481 (ATCC 31823) or ZM 401 (ATCC 31822). The cells are recovered wither by filtration or by sedimentation, and fermentation is pref. at 20-50 deg.C and pH 3.7-8.

By recycling cells, ethanol prodn. is greatly increased but there is no need to supply sterile oxygen to keep the cells alive *Z. mobilis* converts glucose rapidly and is tolevant of high ethanol concns. so is less likely to become contaminated by unwanted bacteria. (13pp)

UNIX ★ D16 76251 D/42 ★FR 2477-572
 Ethanol prodn. by fermentation of *Zymomonas mobilis* - on media contg. carbohydrate, using specific high productivity strains
 UNISEARCH LTD 04.03.81-FR-004338 (05.03.80-AU-002655)
 E17 (11.09.81) C12p-07/06
 04.03.81 as 004338 (1251AT)

Prodn. of ethanol from a medium contg. glucose or other fermentable carbohydrates uses a strain of *Zymomonas mobilis* which has (a) specific ethanol productivity at least 4 (10) g per g per hr.; (b) specific degree of glucose conversion at least 8 g per g per hr., and (c) ethanol tolerance level at least 120 g per l in a batch system using a medium contg. 300 g per l glucose, and at least 60 g per l in a continuous system using a medium contg. 150 g per l glucose.

All these values are measured at 30 deg.C and pH 5, and for (a) and (b) in a medium contg. 200 g per l glucose. Pref. substrates are glucose, lactose, fructose, sucrose, starch or cellulose hydrolysaate and the specific bacterial strains used are CP4 (ATCC 31821) and ZM 481 (ATCC 31823).

These specific strains have better productivity, ethanol tolerance and specific conversion than known strains but compared with yeast, less biomass is formed during the fermentation. (11pp)

KALI D16 63596 A/36 = GB 1600-339
 Water-insoluble immobilised enzyme prodn. prepn. - by contacting enzyme soln. with carrier having optimum, most frequent pore dia.

KALI-CHEMIE AG 10.06.77-DE-726188
 B04 (14.10.81) *DS2726-188 C12n-11/14
 30.05.78 as 024510 (963TM)

Prodn. of water-soluble enzyme prepn. is claimed where (I) in a first selection step a number of support samples comprising functional gps. for the covalent bonding of an enzyme and each differing from one another by their most frequent pore dia., is each reacted with at least 1 soln. of an enzyme to bind the enzyme. The resulting samples are sepd., their absolute enzyme activities are determined and the support having the particular most frequent pore dia. which has yielded the sample prepn. with highest absolute activity at the same enzyme concn. is selected.

(II) In a second selection step, a number of enzyme solns. of differing enzyme content are reacted with a sample of the selected support so as to bond the enzyme to the sample; resulting enzyme preps. are isolated, specific activities are determined, and the soln. of particular enzyme content which has yielded sample prepn. with highest specific activity is selected.

The water insoluble enzyme prepn. is prepd. by reacting support of the selected most frequent pore dia. with enzyme soln. of selected enzyme content, so as to bond the enzyme to the support. (7pp)

MEIJ ★ D16 76348 D/42 ★GB 2073-170
 Antibiotics SF-2107 A-1 - obtd. by culturing, species of *Dactylosporangium*, is useful in pharmaceuticals, bactericides and disinfectants

MEIJI SEIKA KAISHA 06.02.81-JP-015598 (01.04.80-JP-041206)
 B04 C03 (D22) (14.10.81) C07g-11 C12p-01/02
 18.03.81 as 008518 (914NS)

Prepn. comprises cultivating an SF-2107-producing strain of *Dactylosporangium* and isolating from the culture broth Substance SF-2107 A-1. Also claimed are antibiotics SF-2107 B and/or SF-2107 C, prepd. similarly. Pref. the strain is *Dactylosporangium* sp. SF-2107 (FERM 5351; ATCC 31744).

The substances SF-2107 A-1, B and C are characterised individually by their physico-chemical properties. E.g. they are all neutral or weakly-acidic (electrophoresis); soluble in MeOH, acetone, sparingly soluble in benzene, chloroform, n-hexane, water; slightly yellowish powders; positive in iodine and Lemicux reactions, negative in ninhydrin and ferric chloride reactions; they have characteristic UV and IR spectra, specific rotation values, m.pt.s. and Rf values; they each have mol. wt. 900-1100 (gel filtration); and on elemental analysis they contain carbon (53.39 wt.% in A-1, 53.66 wt.% in B and 57.50 wt.% in C) and hydrogen (7.88 wt.% in A-1, 6.75 wt.% in B and 7.04 wt.% in C), but no nitrogen, sulphur, phosphorus or halogen.

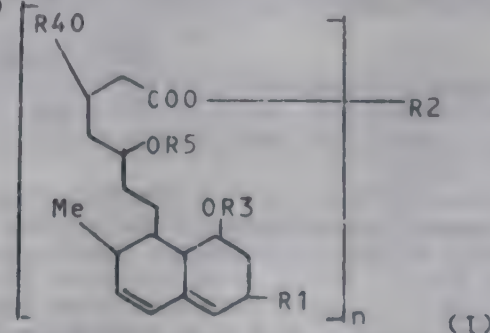
The substances are effective against Gram positive and negative bacteria, and have low toxicity (LD0 is 90mg/kg. 1.p. mice). They are useful for pharmaceuticals, drugs for animals, bactericides and disinfectants, as well as for conversion to these materials. (16pp)

SANY ★ D16 76364 D/42 ★GB 2073-199
 Carboxylic acids, salts and ester(s) of ML-236 and MB-530 - useful as cholesterol biosynthesis inhibitors

SANKYO KK 08.04.80-JP-046004
 B05 (14.10.81) A61k-31/21 C07c-57/26 C07c-59/46 C07c-69/60 C07c-93/19 C07c-143/68
 08.04.81 as 011061 (914KB)

Carboxylic acids, salts and esters of formula (I) are new. In (I) R1 is H or Me; R2 is H, an ester gp. or a cation; R3, R4 and R5 are H or an (in)organic acyl gp., provided that when R3 is 2-methylbutyryl then R4 and R5 are both acyl; and n is the valency of R2.

(I) inhibit the activity of 3-hydroxy-3-methyl glutaryl coenzymes A reductase, which is a rate-determining enzyme in the biosynthesis of cholesterol. Hence they may be used in the treatment of hypercholesterolaemia. They are pref. administered in the form of tablets or capsules in amt. 1-10mg. per day. (40pp)



HONS ★ D16 76366 D/42 ★ GB 2073-202
Restriction enzymes prodn. - by cultivation of Bifido bacterium, in DNA cleavage

YAKULT HONSHA KK 02.04.80-JP-043857

B04 (14.10.81) C12n-09/18

04.03.81 as 006851 (476NS)

Restriction enzymes are obtd. by cultivating a restriction enzyme-producing strain belonging to Bifidobacterium.

Restriction enzymes are endonucleases which recognise specific nucleotide sequences on double-stranded DNA and cleave it at or near the sequences, yielding unique fragments; and are useful in a wide variety of applications in DNA research. While many restriction enzymes of different specificity are known, it is still required to have novel specificities for further characterisation of DNA molecules and for construction of recombinant DNA molecules in vitro, and to have better sources of some of the known enzymes for practical purposes, and Bifidobacteria produce a variety of these enzymes with properties advantageous for practical use. Bifidobacteria are easy to grow on a large scale, and the enzymes can be purified straight forwardly because of their remarkable stability and the low level of interfering nuclease activities in the crude extracts. (6pp)

AZUC. ★ D16 76380 D/42 ★ GB 2073-244
Prepn. of Torula or Candida utilis suspensions - by cultivation in vinasse for animal feed supplement prod.

AZUCARERA ARGENTINA 00.00.80-GB-036168 (12.11.79-AR-278858)

C03 (D13) (14.10.81) A23k-01 C12n-01/16

11.11.80 as 036168 (1248KB)

Prepn. of suspensions of Torula or Candida utilis is effected by cultivation of the microorganism in vinasse in presence of NH₄ and P-contg. salts. The microorganism suspension is obtd. in good yields, and in a continuous process, high yields can be achieved at low cost, e.g. yields may be 6g/l/hr. compared with 0.99-3g/l/hr. in prior procedures. The prod. is a protein source for prodn. of animal feed supplements.

Pref. the fermentation is effected in a medium to which at least one cpd. of Mg, Mn, Zn, B, Cu, Co, Mo, I or Se has been added. When the process is operated continuously, a soln. of the cpd(s). is added to the medium. Pref. molasses is also added to the medium, together with chloramphenicol and formol, and H₂SO₄ to maintain pH 3 or below. The antibacterial and formol prevent bacterial and fungal contamination, and this is assisted at low pH. (3pp)

YEDA ★ D16 76381 D/42 ★ GB 2073-245
Bovine growth hormone from new strains of E coli - obtd. by recombinant DNA method

YEDA RES & DEV CO LTD 24.03.80-IL-059690

B04 C03 (14.10.81) C12n-15

24.03.81 as 009125 (476HM)

New strains of E. coli adapted to produce bovine growth hormone are obtd. by extracting RNA from bovine pituitaries, transcribing DNA on the resulting RNA templates, splicing the DNA into plasmids, inserting the spliced DNA into microorganisms and further subjecting the microorganisms to selection and isolating the colonies producing the desired fused or modified growth hormone. Such modified E. coli strains are cultivated and the desired modified BGH is recovered.

DNA is synthesised enzymatically on mRNA isolated from bovine pituitaries. The DNA is spliced into the beta-lactamase gene of a commonly used plasmid pBR322. E. coli cells, pref. of the HB101 strain, or of similar strains, are transformed by the recombinant plasmids and colonies contg. these plasmids are isolated. Colonies (clones) contg. the coding capacity for BGH and colonies contg. the coding capacity for prolactin are identified by DNA sequencing. The inserted DNA from a colony contg. the full length coding sequences for growth hormone is isolated and reinserted into another plasmid in a position adjacent to the beta-galactosidase promoter. Several colonies producing a polypeptide, which is characterised to be the desired growth hormone by gel electrophoresis and by pptn. with antiserum, raised in response to pure authentic BGH, are isolated. (5pp)

WAKA ★ D16 76797 D/42 ★ J5 6112-902
Protein polysaccharide WAK - useful as antitumoural agent

WAKAMOTO PHARM KK 09.02.80-JP-014293

B04 (05.09.81) A61k-35/84 C08b-37 C12p-19/04

09.02.80 as 014293 (52PW)

Protein polysaccharide WAK having the following properties is new. (1) appearance white or light yellow powder. (2) solubility; soluble in H₂O, HCl, H₂SO₄, NH₄OH, aq. NaOH; insol. in organic solvents such as MeOH, EtOH, PhH, pyridine, EtOAc, Me₂CO, Et₂O, CHCl₃. (3) pH of soln. of 2 g WAK in 100 ml H₂O exhibits pH 4.0. (4) C₂₅H₃₈N₄O₁₂ H₂O 9.8%, N 4.5-4.0%, (5)

chromotrope-H₂SO₄, Bial, Dishe, ninhydrin and Cu-Folin reactions; negative to Elson-Morgan, diphenylamine-AcOH, resorcinol-Cu²⁺-HCl, Nelson-Somogyi, Lambert-Nelsh and Bartlett reactions. (6) M.pt. decomposes at above 240 deg.C. (7) Sugar content: glucose 24.8+/-5, mannose 23.7+/-5, galactose 10.4+/-5%, aspartic acid 2.2, threonine 1.5, serine 1.7, glutamic acid 3.2, proline 2.3, glycine 1.3, alanine 1.4, valine 1.0, methionine 0.2, isoleucine 0.6, leucine 0.9, tyrosine 1.0, phenylalanine 0.5, histidine 2.0, lysine 1.5, arginine 1.5. (8) given IR and UV spectra. (9) Mol. wt. 100,000+/-20,000 (gel filtration).

WAK exhibits an antitumoral activity against Sarcoma 180 solid tumour in mice at a dose of 10-100 mg/kg. (6pp)

JAAT ★ D16 76802 D/42 ★ J5 6112-907
Irradiating vinyl monomer compsn. contg. bioactive material - and glutaraldehyde, to fix the bioactive material at low temp.

JAPAN ATOMIC ENERGY RES 12.02.80-JP-015762

A96 B04 (05.09.81) A61k-09/58 C08f-02/48

12.02.80 as 015762 (57NS)

Process comprises irradiating ionizing radiation to a system obtd. by adding glutar aldehyde to a mixt. consisting of bioactive substance and 1 or more different kinds of vinyl type polymerisable monomer.

Pref. 1-10 wt.% to the system of glutar-aldehyde is added. Pref. 1-10 wt.% w.r.t. the system, of vinyl type polymerisable monomer is used. Irradiation of ionizing radiation is pref. applied at 0-10 deg.C. As the vinyl type polymerisable monomer, ethylene glycol diacrylate, diethylene glycol diacrylate, polyethylene glycol diacrylate, butane diol diacrylate, etc. are pref. bioactive substance is used in the form of buffer soln.

The process can fix bioactive substance firmly in a (co)polymer copolymer without damaging its activity, at low temp. and in a short time. A comparatively low dose of ionising radiation is used. (4pp)

FUKO ★ D16 76881 D/42 ★ J5 6113-289
Beta-amylase extract concentration and refining - involves addn. of halogen free salt of calcium, magnesium or aluminium, and use of a membrane

FUJIOIL KK 09.02.80-JP-014992

B04 (07.09.81) C12n-09/26

09.02.80 as 014992 (965NS)

The method comprises adding a salt formed from calcium, magnesium or aluminium, and an anionic group free of halogen atom, to liquid beta-amylase extract and concentration-refining it using membrane. CaSO₄ calcium lactate, calcium citrate, magnesium lactate, magnesium acetate, aluminium acetate, aluminium borate, etc. are pref. used and they are pref. added above 0.01 (esp. above 0.1)% to the crude extract. Ro and UF are practiced pref. at pH 4-6 (4.5-5.5).

Pref. beta-amylase is extracted from soy bean, sweet potato, malt, barley, wheat, etc. Concentration-refining methods using membrane e.g. reverse osmosis R(O) and ultra-filtration (UF), is excellent, because it is applied using moderate conditions and can save energy. For Ro and UF it is advantageous to apply the temp. and pressure as high as possible so far as the membrane permits, but it has been impossible to apply the temperature above 50 deg.C., because beta-amylase is likely to be inactivated at above 50 deg.C. By adding the salt, RO and UF can be practiced at 50-55 deg.C. without inactivation. (3pp)

KURS ★ D16 76882 D/42 ★ J5 6113-290
Highly active fixed enzyme prepn. - by saponifying vinyl acetate copolymer, spinning obtd. modified PVA and immersing fibrous prod. in aq. enzyme soln.

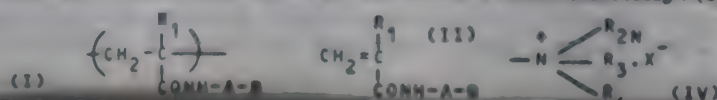
KURARAY KK 07.02.80-JP-014459

A96 B04 (07.09.81) C12n-11/08

07.02.80 as 014459 (5RP)

The method is effected by (1) saponifying vinylacetate unit in the copolymer which is prepd. from vinylacetate and polymerisable monomer (I), partly or wholly and (2) spinning thus obtd. modified PVA having the copolymerizing unit (II) and (3) immersing thus obtd. fibrous modified PVA in aq. enzyme soln. for bonding the enzyme to the fibrous PVA. R₁ is H or lower alkyl. B is gp. - NR₂R₃ (III) or (IV). R₂, R₃, R₄ are each(subst.) lower alkyl. X is anionic gp. which can form salt with ammonium-form N. A is gp. which can bond the gp.B to the N atom in the amido gp.

The modified PVA can be easily made into fibres inexpensively and thus obtd. fibrous PVA shows excellent adsorbing property for enzymes. The fixed enzyme shows high enzymic activity and having fibrous form, it can be handled conveniently. (5pp)



The arrangement is intended for the anaerobic fermentation of liquid stable manure (A) or the like. It uses a tank containing a, preferably concentric, inner container (2) which extends upwards from the tank bottom (11) and has its upwardly open end (12) a short distance (S) below the level (3) of the tank contents. The material is introduced (4,5) near the bottom into the container (2) and its fermentation causes overflow (B) into the surrounding annular space (6).

Final fermentation separates a sediment (D) from waste water (W) which is discharged (14) approximately at the level of the container rim (12). The sediment (D) is separately removed (13) and the developed gas (G) collects in the top cowl (9) of the tank which is connected to a gas outlet (10).

Used in anaerobic fermentation of fermentable organic matter in water-rich waste. (11pp)

MICR = ★ D16 77134 D/42 ★ SU - 856-341
Lysine microbial producer culture medium - contg. aq. soln. of molasses, sapropel hydrolysate and ammonium and phosphate salts

MICROBIOL INST(LIVA =) 14.12.76-SU-429872
B05 E16 (30.05.81) C12d-13/06
14.12.76 as 429872 (938WD)

In microbiologic prodn. of L-lysine the producer strain (e.g. *Bresibacterium* Sp.22 LD or 22A) is cultured in nutrient medium (for 72 hrs. at 30 + - 1 deg. C) contg. (in wt. %): molasses 15.0-32.0; sapropel hydrolysate 0.5-3.0; ammonium salt (e.g. ammonium chloride) 2.5-3.5; phosphoric acid salt (e.g. ammonium or potassium phosphate) 0.1-0.2 and water the rest.

The addn. of sapropel hydrolysate (which acts as microbial growth stimulant) to the above culture medium reduces the L-lysine prodn. costs and accelerates the process. Bul.20/30.5.81. (2pp)

RODI = ★ D16 77143 D/42 ★ SU - 738-398
Culture medium for plague microbes - contg. agar-agar, casein hydrolysate, broth, yeast extract and mineral salts

ROST ANTIPLAGUE RES 15.02.78-SU-579512
(07.06.81) C12k-01/06
15.02.78 as 579512 (938WD)

Nutrient medium, used for culturing plague causing bacterial strain (e.g. *J. pestis* EV) contains (in g/l): agar-agar 17.0-18.0; casein hydrolysate 700.0-800.0; Hottinger broth 200.0-300.0; yeast extract 2.0-4.0; mannitol 0.5-0.7; sodium chloride 4.0-6.0; $MgSO_4 \cdot 7H_2O$ 0.5-0.7; $MnSO_4 \cdot 5H_2O$ 0.001-0.003; and $FeSO_4 \cdot 7H_2O$ 0.005-0.002. The use of the above culture medium produces microbial biomass with high F1-, V- and W- antigens content. Bul.21/7.6.81. (2pp)

APPL = ★ D16 77248 D/42 ★ SU - 798-109
Sorbent for sepn. and purificn. of serine proteinase - obtd. by treating chitin with hydrochloric acid, benzylating in presence of sodium iodide and bicarbonate, washing and drying

APPLIED ENZYMOLOGY 20.11.78-SU-686096
(26.01.81) C08b-37/08
20.11.78 as 686096 (124VE)
Selectivity of the sorbent used for chromatographic seprtg. and purificn. of serine proteinases is increased by using chitin as the starting polysaccharide.

Chitin is first treated with 3-6M HCl until CO_2 ceases to evolve, washed, dried and treated with a 2-3 fold excess of benzyl chloride (I), the excess rel. to the amount of the primary amine groups in chitin, in a 6:1 mixt. of dioxan and methanol, in the presence of 0.5 mole NaI and 1.5-2 moles $NaHCO_3$ per mole of (I), for 15-20 hours at 50-60 deg. C. The material is then washed with dioxan, acetone and water, and dried at 100-105 deg. to yield the prod. (4pp)

LEFO = ★ D16 77298 D/42 ★ SU - 798-164
Nutrient for *Aspergillus niger* culturing - contg. addn. of sodium tri:poly-phosphate complexing agent, to increase citric acid yield

LENGD FOOD IND RES 11.03.79-SU-737118
E17 (23.01.81) C12d-01/04
11.03.79 as 737118 (938WD)
Prodn. of nutrient medium for microbiological synthesis of citric acid by *Aspergillus niger* fungal strain producer includes diluting molasses with water, adjusting medium pH to required value (e.g. pH 6.5), sterilisation, treatment with potassium ferrocyanide, heating the resulting soln. to b.pt. adding complexing agent and cooling. Then the cold soln. is treated with mineral nutrient salts and diluted to the required sugar concn. The yield of the citric acid can be increased and the fermentation process accelerated if sodium tri:polyphosphate is used as complexing agent in amts. of 20-200 mg/l. Bul.3/23.1.81 (2pp)

BIOT = ★ D16 77299 D/42 ★ SU - 798-165
Microbiological prodn. of ribonuclease - by culturing *Bacillus subtilis* strain in medium contg. potato starch and microbial biomass hydrolysates and potassium and zinc salts

BIOTECH RES INST 27.03.79-SU-742091
B04 (23.01.81) C12d-13/10
27.03.79 as 742091 (938WD)

Ribonuclease enzyme is produced by culturing *Bacillus subtilis* B-1611 microbial producer strain in a nutrient medium comprising (in g/l): saccharified potato starch 100-140; microbial biomass hydrolysate 13-17; potassium chloride or potassium sulphate 0.27-0.33; zinc sulphate 0.009-0.011 and balance water.

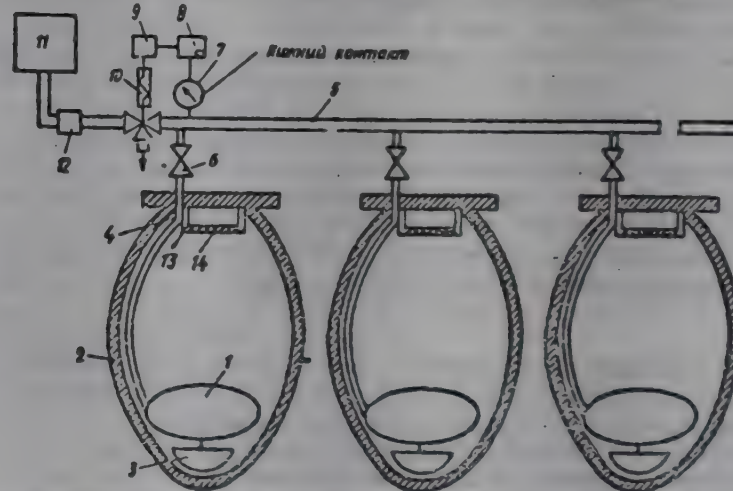
For three-fold increase in enzyme activity, the culturing is conducted for 18 hrs at 37 + - 1 deg. C. with stirring and aeration at 8-10 cu.m/hr rate without the regulation of medium pH. to give culture medium contg. ribonuclease with 5200-6800 units/ml activity. Bul.3/23.1.81 (3pp)

GWIN = ★ D16 77301 D/42 ★ SU - 798-167
Wine prodn. fermenter cap immersing unit - has inflatable chamber in vessels bottom connected to reducer controlled air line

GEOR WINE MFG IND(INPR =) 26.03.79-SU-742473
(23.01.81) C12g-01/02
26.03.79 as 742473 (89VE)

The quality of Georgian wine is improved and the fermentation is accelerated with increased yield of tanning, aromatic and colouring substances by using the unit for immersing the cap of pulped grapes contg. a pressure regulator in air line while the elastic chambers (1) are held in the bottom part of the fermentation vessel (2).

The elastic chambers (1) are connected to the common air line (5) which features electric contact type manometer (7) connected to timer (9) by relay (8). In the automatic regime the manometer (7) is switched on, and in the absence of pressure in line (5) the timer (9) turns on the solenoid valve (10). The air is then admitted to chambers (1) to reach the pressure set by reduces (12) and this raises the wine level above the cap. Bul.3/23.1.81 (2pp)



FERM = ★ D16 77302 D/42 ★ SU - 798-168
Compsn. for prodn. of bitter liqueur - contg. alcoholic extract of pine needles and red bilberry bush leaves

FERMENT PROD RES(OMBR =) 27.03.79-SU-744490
(23.01.81) C12g-03/06
27.03.79 as 744490 (938WD)

Bitter liqueur 'omskaya gorkaya' is obtd. from aq. alcoholic extract of pine needles and red bilberry bush leaves, sugar syrup and colouring agents.

The extract is obtd. from mixt. contg. (lnks/decalitre): pine needles 32-30, dried bilberry bush leaves 24-30 and aq. alcohol the rest. The pine needles are extd for 6-7 days in 60% alcohol and leaves are extd. with 50% alcohol for 6-7 days. The extracts are mixed with sugar syrup followed by the addn. of colouring agents and 72-73 by holding, before fortifying bottling and maturation. The final prod. has high tonic activity and vitamin content. Bul.3/23.1.81 (2pp)

AMLC = ★ D16 77303 D/42 ★ SU - 798-169
Low acidity wine stock clarification - includes addn. of sodium pectate to prevent turbidity

AS MOLD CHEM INST(VIER = MOLD =) 19.03.79-SU-740091
(21.01.81) C12h-01/02
19.03.79 as 740091 (938WD)

In wine prodn. the cloudiness of wine due to the presence of crystalline materials can be prevented if prior to the preliminary clarification the wine-stock is treated with ion-exchanger. The acidity of the wine can be reduced and turbidity avoided by treating partly clarified wine with pectic acid sodium salt as ion-exchange material.

The method avoids introduction into the wine-stock of large amts. of potassium and calcium ions. The low acidity final prod. can be obtd. without addn. of calcium carbonate. Bul.3/21.1.81 (4pp)

ASBI= ★ D16 77304 D/42 ★SU-798-170
Raw brandy spirit maturing accelerator - obtd. by autoclaving
oak-wood pulp moistened with hydrogen peroxide soln. and
drying prod.

AS USSR BIOCHEM INS 26.03.79-SU-742468
(23.01.81) C12h-01/22

26.03.79 as 742468 (938WD)

Brandy-type spirit maturation can be accelerated by the use of oak-wood pulp preliminary heated at elevated pressure in the presence of oxidising agent.

The process can be intensified if oak-wood pulp before thermal processing in an autoclave at 120-150 deg.C and 0.314-0.490 MPa for 12-24 hrs is moistened with hydrogen peroxide soln. and the autoclaved in the presence of hydrogen peroxide decomposition prod. as oxygen source. The pulp is then dried. The method accelerates the maturation of raw brandy spirit to 12-24 hrs. with redn. in pressure, which simplifies the process technology. Bul.3/23.1.81 (2pp)

LEFO = ★ D16 77306 D/42 ★ SU-798-172
Microbiological prodn. of citric acid - using *Arthrobacter*
***terreus* bacterial strain as producer, for high acid yield**

LENGD FOOD IND RES 28.03.79-SU-745923

B04 (23.01.81) C12d-01/04 C12n-15

28.03.78 as 745923 (938WD)

Anthrobacter terregens 199 is a new bacterial strain which accumulates citric acid during submerged culturing in a culture medium contg. molasses.

The above strain can be used in microbiological prod. of citric acid on industrial scale as it has fast growth rate and is resistance to infection work pathogenic microflora. In a continuous submerged culturing of *Anthrobacter terregens* 199 high yield of citric acid can be obtd. without other carboxylic acids being formed. The bacterial biomass can be used in animal feed prods. as protein and vitamin supplement. Bul.3/23.1.81 (3pp)

ASBI= ★ D16 77307 D/42 ★ SU-798-173
Alpha-galactosidase microbiological prodn. - using
Cephalosporium acremonium strain, useful in beet sugar mfr.

AS USSR BIOCHEM INS 01.03.79-SU-750339

B04 (23.01.81) C12d-13/10 C12n-15

01.03.79 as 750339 (938WD)

Cephalosporum acremonium 237 is a new microbial alpha-galactosidase producing strain. The enzyme, obtd. by intracellular synthesis, has high activity and can be used in sugar mfr. from sugar-beet to increase the yield of saccharose during molasses processing. The above strain does not product invertase as by-prod. which hydrolyses sucrose thus reducing the beet-sugar yield. The strain can be cultured in a nutrient medium contg. soya-bean meal, yeast extract, glucose, urea and mineral salt at pH 5.5 and 26-28 deg.C for 48 hrs and galactosidase is sepd. from culture medium by a known method. Bul.3/23.1.81 (2pp)

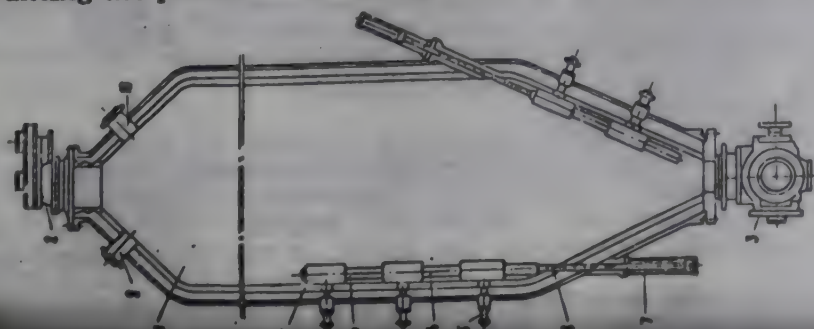
GIDR = ★ D16 77308 D/42 ★ SU-798-174
Hydrolysis apparatus for vegetable materials - has reaction chamber with perforated filter tubes reciprocating, and cleaning discharge chambers with separate removal of lignin

GIDROLIZPROM IND 28.03.79-SU-745928

(23.01.81) C12k-01/02

28.03.79 as 745928 (29MI)

Apparatus for the hydrolysis of vegetable materials, in the microbiological industry, has vertical body (1) and lid (2), means to discharge the lignin (3), pipes for admitting a solution of acid, steam, and removing the hydrolysate, and perforated filtering tubes (4) located inside the apparatus. The hydrolysate is more uniformly taken away during the hydrolysis process, with increased yield of sugar and productivity of the apparatus, by mounting the perforated filtering tubes (4) so that they can move



backwards and forwards along the walls of the apparatus. The individual parts consist of a series of stationary chambers for collecting and removing the hydrolysate. (3pp Dwg.No.1)

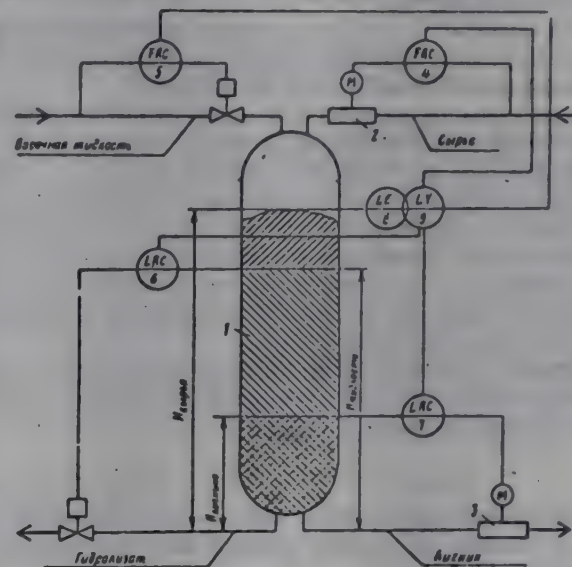
GIDR = ★ D18 77309 D/42 ★ SU-798-175
Automatic hydrolyser control - correcting feed and extraction
controls by monitoring raw material level in hydrolyser top

GIDROLIZPROM IND 28.03.79-SU-745929

T06 X25 (23.01.81) C13k-01/02

28.03.79 as 745929 (39MI)

The automatic process control of the hydrolysis of plant raw material, for use specially in the yeast manufacturing branch of the microbiological industry, is based on a control of the feed of boiling liquid into the hydrolyser (1) by a control system (5) and of the extraction of hydrolysed mass by a control system (6). The raw material which is charged through a feeder (2) is stabilised by an automatic control system (4). The extraction lignin through the outlet (3) is controlled by the level of the solid phase, sensed by the level control (7). Bul.3/23.1.81 (3pp Dwg.No.1)



MINU D16 83869 A/46 = US RE30-753
Aminoacid nutrient medium - supplemented with liver extract,
insulin, antibiotic and antifungal agents for growth hormone
prodn.

MINNESOTA UNIVERSITY 00.04.76-US-675643 (07.01.80-US-109908)

B04 (29.09.81) *US4124-448 + C12n-05/02 C12p-21

07.01.80 as 109908 Reissue of 4124448 (+ 9.4.76 -US-675643) (982PW)

A nutrient culture medium adapted to the prodn. of growth hormone from pituitary cells by serial sub-culturing, consists of effective amts. of an amino acid-rich nutrient medium supplemented by the addn. of minor amts. of liver extract, insulin and antibiotic and antifungal agents.

Pref. amino acid-rich medium is Medium 199-1X with Earle's modified salts. The compsn. includes 5-20 ml liver extract and 6-20 IU of insulin per litre of Medium 199-1X.

Using the medium, the human pituitary cells can be grown in vitro to produce more than 20 times the amt. of extractable growth hormone. (4pp)

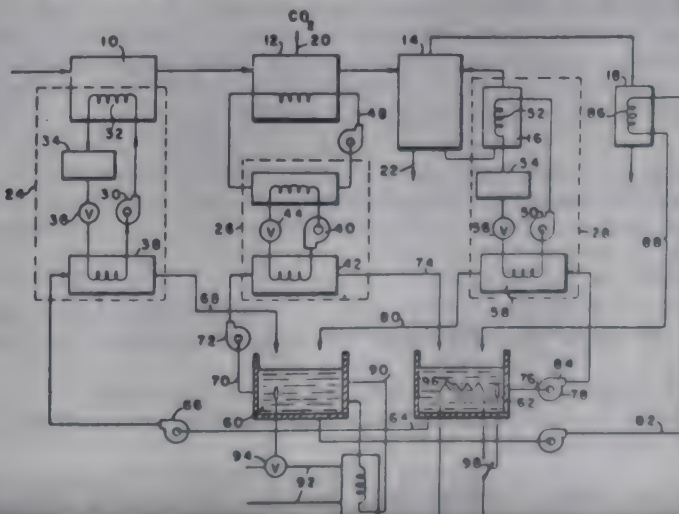
WESE ★ D16 77581 D/42 ★ US 4291-757
Heat exchanger system for e.g. ethyl alcohol plant - has warm
and cold tanks connected to three heat exchangers

WESTINGHOUSE ELEC CORP 28.05.80-US-153991

E17 Q78 (29.09.81) F28d-07

28.05.80 as 153991 (979DH)

For a material processing operation having at least one stage requiring heating and at least one stage requiring cooling,



heating is provided by a first heat pump (24) and cooling is provided by a second heat pump (26). Two storage tanks of different temps. (60,62) are provided, the second tank (62) serving as a heat sink for the condensing section (42) of the second heat pump, and serving as a heat source for the evaporator section (38) of the first heat pump. The first tank (60) provides a cooler fluid for the condenser section of the second heat pump and receives a cooled fluid from the evaporator section of the first heat pump.

In a processing operation such as an ethyl alcohol plant in which additional heating is required for an additional stage, a third heat pump is provided with its evaporator section in heat exchange relation with the fluid from the warmer tank and returning the fluid to the cooler tank. (5pp)

SHIO D16 77431 C/44 = US 4292-241
Antibiotic PA-31088-IV - which is active against Gram positive and negative bacteria and is also a beta-lactamase inhibitor
SHIONOGI KK 06.04.79-JP-042347
B02 C02 (29.09.81) *EP-17-246 A61k-31/40 C07d-487/04
25.01.80 as 115278 (924PW)

Antibiotic PA-31088-IV, 3-((2-acetamidoethylene)sulphonyl)-6-(2-hydroxy-1-methyl ethylidene)-7-oxo-1-azabicyclo(3.2.0) hept-2-ene carboxylic acid, and its salts are described.

The antibiotic has specified UV and IR absorption spectra and specified circular dichroism and NMR spectra. It is soluble in water but insoluble in acetone, ethyl acetate, chloroform and ether. Positive colour reaction is obtd. with Ehrlich's reagent, while ninhydrin gives negative reaction. The substance is acidic and gives elemental analysis C 46.41; H 4.14; N 7.73; S 8.84; Na 5.99. The substance is produced by cultivating *Streptomyces tokunonensis* sp. nov. in a suitable medium and recovering the prod. from the culture broth.

The antibiotic is useful as a medicament and veterinary drug for inhibiting the growth of gram-positive and -negative pathogenic microorganisms. (6pp)

DATA ★ D16 77724 D/42 ★ US 4292-273
Radioimmunoassay plate with flat bottomed wells - and cover, permitting stacking of loaded plates and preventing halo effect on photographic plate

DATA PACKAGING CORP 29.06.79-US-053260
K08 (29.09.81) C12m-01/20
29.06.79 as 053260 (295MR)

The bottom tray of a radioimmunoassay plate includes wells extending from the top plane of the tray. Each well has a flat bottom wall lying on a common plane. A peripheral side skirt surrounds the tray and includes a horizontal flange at its lower edge. A removable cover can be placed on the tray and includes a skirt which mates with the skirt of the tray to provide a seal. An upwards projecting rim on the cover supports a further tray which can be stacked above it. The rim includes an abutment which prevents the wells of the upper tray from contacting the cover.

The wells are loaded with a sample and, after incubation and prepn., it is placed on a photographic plate so that the flat bottoms of the wells contact the plate. The shape of the bottom wall of the wells prevents the formation of a halo effect on the photographic plate. (6pp)

ZEML/ D16 54714 C/31 = US 4292-307
Animal and poultry anti-clostridium vaccine - contg. specified clostridium strains antitoxin(s), aluminium hydroxide gel, aq. formaldehyde, phosphate buffer and saline soln.

ZEMLYAKOVA V P 30.09.77-SU-523702
B04 C03 (29.09.81) *SU-627-610 A61k-39/08 + A61k-09/12
19.02.80 as 122172 (+ 14.9.78-US-942145) (918TM)
Universal vaccine for prophylaxis and treatment of clostridiosis of animals and poultry comprises formaldehyde-detoxicated toxoids of clostridium perfringens types A, B and D, Cl.oedematiens and Cl.septicum sepd. from the microbial mass.

Compn. also contains sorbent comprised of aluminium gel and a solvent comprising phosphate buffer and physiological salt soln. The vaccine is free of bacterial cells and nonspecific proteins and the antigenic activity of the components is given. Pref. the vaccine contains a mixt. of phosphate buffer and physiological salt soln. in a wt.ratio of 1:1 as the solvent.

Vaccine can be used at large industrialised animal and poultry farms to protect animals and birds from 5-11 causative agents. (8pp)

TAKE D16 59850 C/34 = US 4292-309
Antibiotics C-14482 B1, B2 and B3 - obtd. from a culture of *Nocardia* sp.

TAKEDA CHEMICAL IND KK 02.02.79-JP-011561
B04 (29.09.81) *NL8000-627 A61k-35/74 C12n-01/20 C12p-01/04
17.01.80 as 115278 (924PW)
Antibiotics C-14482 B1, B2 and B3 are new.

(I) contains 55.61 + /-1.0% C, 6.31 + /-0.5% H and 13.64 + /-1.0% N. (I) has m.pt. above 300 deg.C and absorption and infrared spectral analyses are given. (I) is soluble in ethanol and insoluble in hexane and petroleum ether.

(II) has elemental analysis 57.4 + /-1.0 C, 6.51 + /-0.5 H, 13.44 + /-1.0 N, m.pt. above 300 deg.C. UV and visible absorption spectra and infrared absorption spectrum are shown. Solubility and colour reactions of (II) are also shown.

(III) has an elemental analysis giving 58.74 + /-1.0 C, 6.64 + /-0.5% H, 14.31 + /-1.0 N. Other properties of (III) are also given and include infrared, UV and visible absorption spectra, solubility, acidity, etc.

Antibiotics are used as germicides and disinfectants, etc. (14pp)

JOHN/ D16 53425 W/32 = US 4292-327
Micromycetosis - isolation, cultivation, and chemotherapy of *Micromyces intracellularis*

JOHNSON LA 23.01.74-US-435643 (11.08.78-US-932904)
B04 C03 (29.09.81) *NL7500-669 A61k-31/13
31.03.80 as 135887 Div ex 4220657 (+ 11.8.78-US-932904) (963PW)
Treatment of active uveitis caused by *Micromyces intracellularis* comprises admin. of d-2,2'-(ethylenedilimino)-di-1-butanol (I). Pref. (I) is administered subconjunctivally to the affected eye, orally or topically to the eye. (I) is similarly used for treating chronic conjunctivitis, kerato-conjunctivitis and keratitis.

(I) can be prepd. by heating ethylene dichloride with (+)-2-aminobutanol or, alternatively, by alkylating 2-aminobutanol with glyoxal using NaBH₄ as reducing agent. (10pp)

BEAF ★ D16 77750 D/42 ★ US 4292-330
Prepn. of leavened dough mixts. - using mixt. of candida lusitaniae and saccharomyces delbrueckii as leavening yeasts
BEATRICE FOODS CO 18.07.79-US-058619
(29.09.81) A21d-02
18.07.79 as 058619 (478)

The known prepn. of a leavened dough in which: (a) a dough is formed from a cereal, shortening (I), leavening yeasts (II), and a yeast growth source; and (b) the dough is fermented and leavened is improved by using rapid flavour producing yeasts (III) (mixt. of *Candida lusitaniae* and *Saccharomyces delbrueckii*) as (II).

Use of (III) as the leavening yeasts affords higher levels of flavour and aroma in shortened fermentation times, or increased levels of flavour and aroma in normal fermentation times.

Cereal is wheat, oats, rice, barley, corn or rye, etc. (I) is an animal or vegetable oil or fat. Dough may also contain all the conventional ingredients such as salt, malt, milk solids, flavouring agents, etc. Yeast growth source is not sucrose but galactose, trehalose, etc. pref. dextrose and amt. used is 0.1-1.5% by wt. of cereal. Wt. ratio (II): baker's yeast if used is 80:20:20-80 pref. 75:50:25-50, esp. 65:35. Amt. of yeast (total) used is 0.1-0.5% by wt. of cereal. Finished dough is baked at 300-500 deg. pref. ca. 400 deg. F. (4pp)

ALKU ★ D16 77775 D/42 ★ US 4292-403
Determn. of antigen specific immunoglobulins - without interference by rheumatoid factor for quantitative results

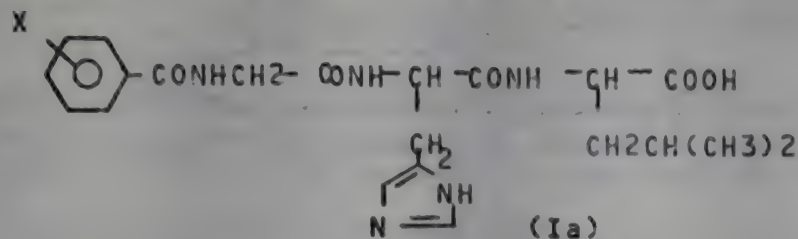
AKZONA INC 24.08.78-NL-008730
B04 S03 (S05) (29.09.81) C12n-09/96 C12q-01/70 G01n-33/54
20.08.79 as 067680 (1248RH)
Detection or determn. of an antigen specific immunoglobulin of a predetermined IgX class (X is M, A, D or E) in a test medium involves (1) contacting it with either insolubilised anti-IgX or an antigen-binding fragment of the anti-IgX to form a reaction prod.; (2) Then incubating the mixt. with an antigen for which the immunoglobulin IgX has specific affinity and with a labelled antigen binding fragment of an antibody against the antigen; and (3) detecting or determn. the labelling fragment to give qualitative or quantitative information about the IgX. The immunoglobulin can be determined without interference by the rheumatoid factor so that qualitative or quantitative results are obtd. without false positives. A diagnostic test kit for the determn. can be conveniently provided. (8pp)

FUJI- D16 27498 D/16 = US 4292-404
Colorimetric determn. of angiotensin-converting enzyme - using subst. hippuryl-histidyl-leucine as substrate (NL 30.3.81)

FUJIZOKI PHARMACEUT 26.09.79-JP-122582
B04 (29.09.81) *DE3034-618 C12q-01/34
11.09.80 as 186075 (936MR)
Activity of angiotensin-converting enzyme (I) comprises (a) mixing a liq. contg. (I) with a reagent comprising X-hippuryl-L-histidyl-L-leucine and with hippuricase, peroxidase, 4-aminopyridine and H₂O₂ of formula (Ia); and (b) colorimetrically measuring the concn. of the quinonimine dye produced.

X is OH, NH₂ or NHC(=O)R, R is H or p-tolyl, p-tolyl, p-aminophenyl, or p-dimethylaminophenyl.

leucine. (3pp)



USAT **D16** **53349 C/31 = US 4292-406**
Thermoanaerobacter ethanolicus and clostridium thermocellum
cultures - useful for ethanol prodn. from aq. nutrients contg.
cellulose

US DEPT OF ENERGY 11.09.79-US-074286

E17 (29.09.81) *BE-882-162 C12p-39

11.09.79 as 074286 (931AS)

A mixed culture syst. comprises biologically pure strains of the microorganisms thermoanaerobacter ethanolicus (ATCC 31550) and clostridium thermocellum (ATCC (ATCC 31540), which can produce recoverable amts. of ethanol upon fermentatin in an aq. nutrient culture contg. cellulose material.

Prof. the process is conducted under anaerobic thermophilic conditions, at pH 6.8-7.8 and 45-70 deg.C, until a recoverable amt. of prod. is obtd. The process can esp. yield 1.46 mol of ethanol per glucose unit of cellulose, the prod. being recovered by conventional distillation techniques. (3pp)

USAT **D16** **53348 C/31 = US 4292-407**
Thermoanaerobacter ethanolicus cultures - useful in ethanol
prodn. from aq. nutrients contg. carbohydrate(s)

US DEPT OF ENERGY 11.09.79-US-074287

E17 (29.09.81) *BE-882-161 C12p-07/06

11.09.79 as 074287 (931TM)

A biologically pure culture of the microorganism thermoanaerobacter ethanolicus (ATCC 31550) produces ethanol upon fermentation in an aq. nutrient medium contg. a mono- or disaccharide, pyruvate, pectin, and starch substrate.

Prof. the fermentation is under anaerobic, extreme thermophilic conditions, at pH 5.7-8.6 and 36-80 deg.C, and the ethanol obtd. is recovered. The mono- or disaccharide substrates uses are esp. glucose, fructose, D-ribose, xylose, D-mannose, D-galactose, sucrose, cellobiose, lactose or maltose.

Yields of ethanol as high as 1.8 mol per mol of fermented glucose may be achieved at 60 deg.C and pH 7.8 under anaerobic conditions, and the prod. recovered by conventional distillation techniques. (3pp)

KERJ**D16****48957 Y/28 = US 4292-408**

Living cells prodn. for absorbing metals from liqs. - by exposure
to an electric field to modify cell membrane

KERNFORSCHUNGS JULICH 24.12.75-DE-558750

K05 M25 (29.09.81) *DE2558-750 C02f-03 C12n-01/20 C12n-13

12.03.79 as 019436 (+ 22.12.76-US-753474) (006AS)

Biological method of removing metal ions from aq. solns. e.g. recovering rare metals such as uranium and lithium from sea water economically, comprising suspending a mass of single cell microorganisms in a compatible treating sol. and applying an electric field of intensity 1 to 20 kV per cm. to increase cell walls porosity by pulsating the field.

The cells are then removed and suspended in the aq. soln. from which they adsorb metal ions, due to their enhanced capacity, for recovery from the cells. (5pp)

ITAF**D16****65987 C/38 = US 4292-409**

Reactor for enzyme reactions - comprising a cell in two halves
forming a reaction chamber, with a sheet of immobilised enzyme
sealed between them

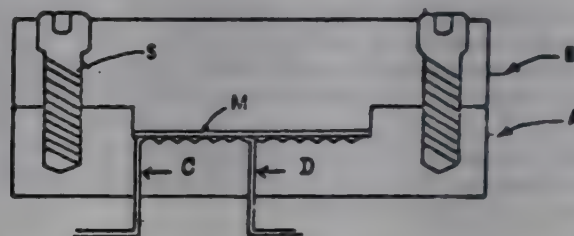
ITALFARMACO 08.05.79-IT-022448

B04 (29.09.81) *BE-883-161 C12m-01/40

26.09.79 as 079036 (1358AS)

A laminar flow reactor for reactions with enzyme or cofactor immobilised on a flat-surfaced matrix comprises two blocks with flat surfaces, one with a spiral channel forming the reaction chamber which is closed by the second block sealing against the first. The matrix is adhered to the second block and compressed against the channel.

The channel has inlet and outlet orifices at opposite ends and the matrix is a film, sheet or membrane or is paper, and is replaceable. The channel may alternatively be formed in both blocks. The arrangement permits increased contact with smaller volumes of reaction solution. (6pp)



See Also

D12 SU 798171	D13 CA 1108920	D13 FR 2477381
D13 J5 6113298	D15 J8 1040604	D17 US 4292199
D21 J5 6113708	D23 J8 1040199	

D17: SUGAR; STARCH

CORP ★ **D17** **75755 D/42 ★BE-889-045**
Continuous prepn. of crystalline dextrose from starch
hydrolysate - by stirring, opt. with seeding and opt. with fluidised
bed treatment

CPC INTERNATIONAL INC 03.06.80-US-156153

(01.10.81) C13k

02.06.81 as 889045 (597KB)

The prod., having high dextrose and alpha anhydrous dextrose contents, is produced from a conc. starch hydrolysate contg. 95-99% dry solids, by stirring the hydrolysate whilst seeding with a crystalline sugar or ground crystalline dextrose. Another embodiment comprises using a 92-99% core hydrolysate at 90-135 deg.C, which is stirred at 80-110 deg.C. for 1 min to 1 hr. whilst seeding with the above or a free-filming dextrose. The crystalline dextrose is ground, pref. screened, then conditioned at 65-110 deg.C. in a fluidised bed for 7-45 min., followed by cooling to below 35 deg.C., to give a prod. contg. less than 0.5% moisture. A further embodiment is as the 2nd above omitting the seeding operation.

The process enables a single stage crystallisation giving a stable prod. which does not agglomerate after prolonged storage. (23pp)

KAET/ ★ **D17** **75757 D/42 ★BE-889-070**
Dehydration of sugar cane bagasse - by rolling at low pressure
increasing progressively to not more than 200 kg per square cm

KAETHER W 06.06.80-DE-031311

(01.10.81) C13d

03.06.81 as 889070 (448KB)

The bagasse is advanced in continuous sheet form through at least three pressing zones, the pressure increasing progressively

200 kg/sq.cm. The sheet takes several seconds at least to pass through each pressing zone. In the first pressing zone, the sheet traverses a gap where it can sag freely.

The dia. of the pressing roll is equal to several times the thickness of the sheet before pressure is applied. The width of the gap is pref. not more than half the dia. of the pressing roll. In the first pressing zone, the average magnitude of pressure is pref. of the order of 0.08 kg/sq.cm.

Before entering the final pressing zone, the sheet is pref. subjected to shear forces, bagasse particles being relatively displaced in a direction to the major surfaces of the sheet. (33pp)

SUSO**D17****52764 W/82 = DS 2502-558**

Crystallisation of fructose from aq. soln. - under conditions of
slight oversaturation in presence of nucleating crystals

SUOMEN SOKERIOY 28.01.74-US-437224

E13 (08.10.81) *DE2502-558 C07h-01/06

23.01.75 as 502558 (068PW)

Crystalline fructose is recovered from aq. solns., the solids content of which comprises 90-99wt.% fructose and the remainder glucose.

The soln. is first satd. with respect to fructose by adjusting its dry weight content to 90-94wt.% and its temp. to 58-65 deg.C and its pH to 4.5-5.5. Large fructose seed crystals are added and the soln. is cooled to a supersatd. state with respect to fructose with a satn. coefft. of 1.1-1.2. The soln. is maintained in the supersatd. state by adjusting the temp. and by addn. of further satd. soln. so that the distance between the growing crystals of fructose is kept constant. When the crystals reach a size of 200-500 microns m. they are removed from the soln.

The pH of the soln. is pref. regulated by addn. of aq. sodium carbonate soln. or anion exchange resin. The pH has a strong

D 17: SUGAR; STARCH-p.38

Influence on the formation of difructose and difructose anhydride. P8 (12pp)

ICIL D17 80601 X/49 = J8 1040-700
Mannitol prepn. from glucose solutions - by epimerising with molybdenum catalyst to mannose then hydrogenating

ICI US INC 19.05.75-US-578548

E13 (22.09.81) *BE-842-004 B01j-31/08 C07c-29/14 C07c-31/26

12.05.76 as 063380 (MR)

A soln. contg. glucose and mannose is prepd. from a soln. of glucose, glucose polymers or mixts. thereof having a carbon hydrate content of 50% or more by contacting the soln. with a catalyst contg. molybdenum in the hexavalent state at at least 70 deg.C. Also mannitol is prepd. by catalytically hydrogenating the soln. obtd. to form a soln. contg. sorbitol and mannitol followed by sepn. of the latter. By using a higher concn. e.g. 67%, a yield of 30-33% mannose is obtd. compared with about 25% for concns. of about 17%; a further advantage in the higher concn. is in avoiding the need to evaporate so much water. (J51141807) (6pp)

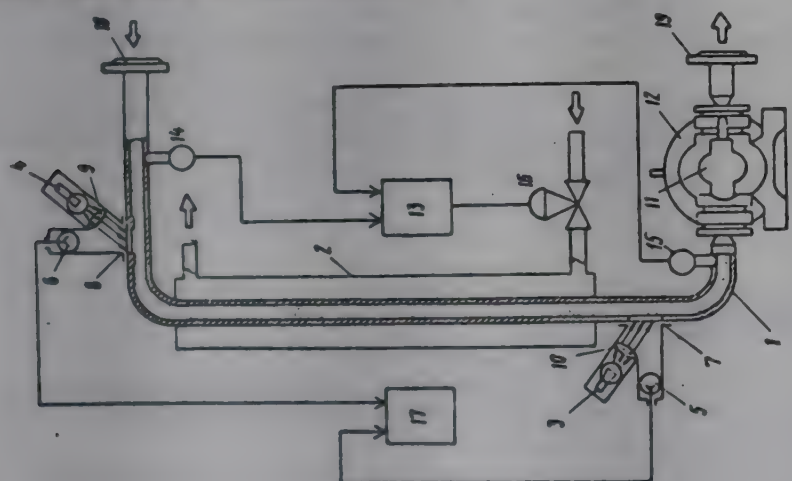
KIFO = ★ D17 77426 D/42 ★ SU-798-565
Method and equipment for control of sugar crystallisation - has circulating tube with cooling jacket to create crystal seeds in supersaturated solution detected by light beams

KIEV FOOD IND RES 04.11.78-SU-682123

S03 (28.01.81) G01n-21/85

04.11.78 as 682123 (29MI)

Method and equipment for control of processes of crystal-formation in sugar massecuites, during the boiling process, includes measuring the differential intensity of two light beams. The accuracy and control reliability are increased, during the primary and secondary crystal-formation, by carrying out the control in accordance with the measurement of the differential intensity of two diffusively-reflected light beams. Prior to the measurement, the super-satn. of the solution is increased by cooling. The apparatus has sources of light (3,4) with comparative and measuring photo-electric cells (5,6) switched into a bridge circuit. Again accuracy and reliability of the measurement is done by introducing a circulation tube (1) with cooling jacket and optical screens to illuminate the photo-elements, the optical axes of which are arranged within the limits 5-80 deg. according to the ratio of the optical window to the normal. Bul.3/23.1.81. (3pp Dwg.No.1)



DZHA = ★ D17 77481 D/42 ★ SU-799-784
Liquid suspension disc filter for use in sugar prodn. etc. - has ribbed discs with cermet filter plates and stiffening rings to facilitate regeneration

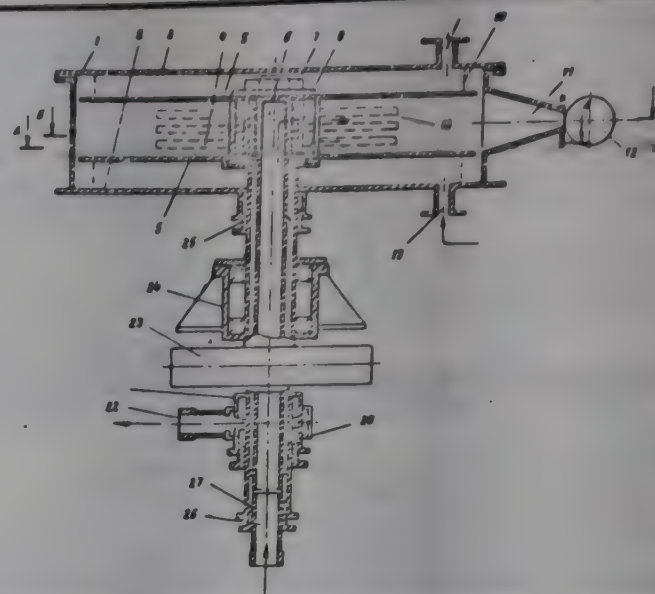
DZHAMBUL LIGHT FOOD(MOFO=) 11.04.78-SU-606854

(30.01.81) B01d-25 B01d-33/26

11.04.78 as 606854 (132VE)

The filter, used in concn. of sugar suspensions before vacuum filtration, etc. comprises a vertical casing (1) with a bottom (2) and a cover (3), a vertical set of discs (4) on a hollow shaft (6), a drive, and suspension inlet and filtrate and sludge outlet pipes.

To increase performance, impermeable discs 0.97-0.98 fold the casing in diameter are fitted on the ends of the discs, whose diameter is 0.4-0.6 that of the casing while the inlet pipe is inside the shaft and has radial holes at the end of it linking the pipe to the zone between the discs, and the sludge outlet is a slit along the generating line of the casing. (4pp Dwg.No.1)



BATT D17 29657 C/17 = US 4292-089
Continuous decomposition of wood residues - using hydrochloric acid to dissolve lignin hydrogen chloride gas to agitate

BATTELLE MEMORIAL I 04.10.78-CH-010298

F09 (29.09.81) *DE2940-547 C13k-01/02

04.10.79 as 082221 (006AS)

Process for continuously dissolving cellulose from lignocellulose material, i.e. for recovery of monosaccharides such as glucose and xylose, comprising immersing material soaked with conc. HCl in an HCl bath through which HCl gas is bubbled while stirring the bath moderately.

The bath is fed continuously with fresh material and conc. HCl. Fragments of material remain immersed, but fine residual lignin particles float in suspension and are weir removed. Pref. the appts. comprises a soaking drum preceding a main drum, both being rotatable. (11pp)

UNVO ★ D17 77688 D/42 ★ US 4292-199
Prepn. of support matrix for immobilised enzymes - by impregnation of inorganic oxide with poly amine, then controlled pH curing

UOP INC 18.08.80-US-178659

A96 (D16) (29.09.81) B01j-31/06 C12n-11/08

18.08.80 as 178659 (478MR)

Prepn. of a support matrix in which: (a) a porous, refractory inorganic oxide (I) is impregnated with a polyamine (II); (b) the mixt. is treated with a bifunctional reagent (III) to cross-link (II) to afford several pendant functional gps.; (c) unreacted but adhering (III) is removed; and (d) the support matrix is recovered, is improved by (i) impregnating (I) with (II) at pH less than 4, then (ii) curing the impregnated (I) at pH 8-12.

The prepd. support matrix is capable of contg. significantly increased by ca 35% loads of an immobilised enzyme. The support matrix is described in US 4141857. (I) is pref. pellets or granules of size above 1/32 inches, and is suitably Al₂O₃, ThO₂, MgO, SiO₂ etc. (II) is pref. tetraethylenepentamine, ethylenediamine, diethylenetriamine, triethylenetetramine, pentaethylene hexamine, hexamethylenediamine, C₆H₄(NH₂)₂, etc., pref. polyethyleneimine. (III) is pref. succindialdehyde, terephthaldehyde, toluenediisocyanate, etc. pref. glutaraldehyde. (4pp)

ICIL ★ D17 77792 D/42 ★ US 4292-451
Prepn. of mannitol-rich solns. - by alkaline hydrogenation of aq. epimerisate soln. contg. glucose and mannose

ICI AMERICAS INC 13.07.79-US-057397 (30.03.78-US-891712)

(29.09.81) C07c-31/26 C12p-19/24

13.07.79 as 057397 (478MR)

A mannitol (I) rich soln. contg. (I) and sorbitol (II) is prepd. as follows: an aq. epimerisate soln. contg. glucose and mannose is hydrogenated over a catalyst at 60-100 deg.C to afford a soln. richer in (I) than would be expected under non-isomerising conditions. The soln. to be hydrogenated contains an alkali metal salt (III) of a weak acid to give initial pH 8-10.

Process gives enhanced yields of (I) while minimising the amts. of impurities produced.

The epimerisate soln. is prepd. by known methods, is diluted with H₂O to pref. 50-60% solids content, then treated successively with pref. decolourising resin (e.g. 'Duolite S-30' (RTM)), strongly acid cation exchange resin (e.g. 'Permutit Q-4' (RTM)), weakly basic anion exchange resin (e.g. 'Amberlite XE-275' (RTM)), more strongly acid cationic resin, more weakly basic anionic resin, then activated C. (9pp)

See Also

D18: SKINS; HIDES; LEATHER; TOBACCO

PHIM ★ D18 76119 D/42 ★EP --37-163
3-Heterocyclic-3-hydroxy-alkanoic ester derivs. - useful as flavourings for tobacco, foods, meat smoking fuels etc. (BR 25.8.81)

PHILIP MORRIS INC 20.02.80-US-122901

E13 P15 (D13 D33) (07.10.81) A231-01/22 A24b-03/12 A24b-15/38 C07d-213/55 C07d-241/12 C07d-521

10.02.81 as 300543 (1251JB) (E) No-Citns. E(CH DE FR LI NL)

Hydroxy-carboxylate derivs. of formula (I) are new.

X.C(R)OH.CR1R2.COOR3(I)

(X is 2-12C heterocyclyl contg. O, N, or S as heteroatoms; R is 1-12C aliphatic, alicyclic or aromatic gps; R1 and R2 are H, as R, or together complete an alicyclic ring, R3 is as for R). Pref. cpds. have X as 2-pyrazinyl, or 2-, 3- or 4-pyridyl, all opt. substd. by one or more lower alkyl.

Specifically claimed are ethyl 2-(2-butyl)-3-hydroxy 3-methyl-3-(3-pyridyl)- propionate; ethyl 2-(2-butyl)-3-hydroxy- 3-methyl-3-(2-pyrazyl)- propionate; and amyl 3-hydroxy-3-methyl- 3-(4-pyridyl) propionate.

(I) are useful as flavouring e.g. for tobacco or its substitutes at 0.00001-2 wt.%; in foods at 0.01-5 wt.%; and in combustible articles (e.g. candles, solid fuels, or in fuels used to smoke meat) at 0.01-10 wt.%. Unlike known heterocyclic flavourings, (I) have low volatility and low pack aroma. They decompose when heated, into XCOR and HCR1R2.COOR3. (25pp)

BRPE ★ D18 76158 D/42 ★EP --37-250
Synthetic tanning agents for leather - prepd. by formaldehyde condensn. and sulphonation of alkylphenol mixt. rich in ortho and para isomers

BRITISH PETROLEUM LTD 02.04.80-GB-011011

A97 (A21) (07.10.81) C08g-08/18 C14c-03/20

26.03.81 as 301293 (955HM) (E) No-Citns. E(BE CH DE FR GB IT LI NL SE)

In a process for the prodn. of syntans from a phenol material contg. at least 5 wt.% of mono- or dialkyl phenols having 3-4C alkyl gps. by sulphonation and formaldehyde condensation in any order, the improvement is that the alkyl phenols have at least 90% of the alkyl gps. in the ortho or para posns., and less than 5% in the meta posn.

Use of the isomer mixt. described avoids the problems of purple colouration or poor solubility of the sulphonated prod. prepd. using alkyl phenol mixts. enriched in the meta isomer. The prods. are adequately sol. and have only a faint yellow colour. (9pp)

PATP- ★ D18 76379 D/42 ★GB 2073-241
Drying moist skin - by stretching multidirectionally then heating gently under subatmospheric pressure

PATPAN INC 27.03.80-CH-002397

(14.10.81) C14b-01/58

26.03.81 as 009516 (1358RH)

A skin stretched in multiple directions w.r.t. the skin centre and in proportion to the skin dimension between stretching points, is placed in an enclosure, exposed to sub-atmospheric pressure and heated at less than 75 deg.C., pref. by IR radiation with a wavelength of at least 7 μ or by a high-frequency field.

Stretching is pref. by securing the skin to pairs of opposed points on rigid members each inclined at the same angle to a given plane and capable of pivoting about an axis parallel to or in the plane and adjacent to the skin centre, then pivoting the members into the plane. The apparatus pref. has a cover in which the heater is mounted and which clamps the stretched skin and forms a fluid-tight seal with it. (7pp)

NISB ★ D18 76880 D/42 ★J5 6113-286
Improving flavour of low nicotine tobacco - by adding to tobacco a small amt. of d-nicotine which has lower stimulating effect

JAPAN TOBACCO & SALT PUB 08.02.80-JP-013541

E13 P15 (07.09.81) A24b-03/12

08.02.80 as 013541 (5KB)

Method comprises combining d-nicotine in an amt. of 0.0001-5 (0.005-1) w/w% in tobacco. Nicotine in natural tobacco is 1-

nicotine and the stimulative action on peripheral nerve by d-nicotine is almost 1/10th that of 1-nicotine. d-Nicotine gives good taste and flavour and good smoking feel to low nicotine tobacco.

The d-nicotine can be prepd. e.g. either by repeating the recrystallisation of dl-nicotine in the form of the salt of optically active acid and obtaining crystalline d-nicotine salt or by decomposing 1-nicotine in dl-nicotine using the microorganism which can decompose 1-nicotine specifically. (3pp)

KILI= ★ D18 77139 D/42 ★SU -693-706

Raw hide tanning - with emulsion of chlorinated hydrocarbon and surfactant followed by soln. of chromium salts

KIEV LIGHT IND TECH 06.01.78-SU-565624

(28.05.81) C14c-03/04

06.01.78 as 565624 (314VE)

Leather is tanned by treating raw hide with an organic emulsion of stabilised chlorinated hydrocarbons contg. 13-47% Cl, in an amt. 1-4% on hide wt., and a non-ionic surfactant in an amt. 5-10% on wt. of chlorinated hydrocarbons. The hide is then treated with Cr salts, the entire tanning treatment being carried out at 38-45 deg. Cover 2-4 hrs.

The process is intensive and a high quality tanned leather is obtd. (3pp)

LEAT= ★ D18 77310 D/42 ★SU -798-176

Leather treatment for footwear - comprising tanning, pressing-out, filling with zirconium cpd. and molasses, greasing and neutralising

LEATHER FOOTWEAR 13.03.79-SU-735397

(23.01.81) C14c-09

13.02.79 as 735397 (314VE)

Leather treatment, esp. for making leather for shoe soles, comprises: filling tanned and pressed out leather with a Zr salt and molasses; greasing with a molten grease- and neutralising.

The method produces good quality leather of increased gauge. The amt. of Zr salt used is pref. 2-4% on wt. of pressed leather, calculated as ZrO₂, and the amt. of molasses used is 5-7%. The amt. of grease used is pref. 1.5-3%. The amt. of neutraliser used is pref. 2-4%. (2pp)

UGEN= ★ D18 77311 D/42 ★SU -798-177

Aq. compsn. for greasing fur pelts - contg. alkali, polyfunctional oxygen-contg. cpd., mineral oil, poly-methyl-siloxane glycerine, hydroxy-benzoic acid and diethyl-benzamide

UKR GENERAL SERVICE 26.02.79-SU-729236

A97 (23.01.81) C14c-09/02

26.02.79 as 729236 (314VE)

Aq. compsn. for greasing fur pelts, such as rabbit skins, comprises (in wt.%): a polyfunctional O-contg. cpd. 37-41, mineral oil 10-11.8, NaOH 5-6.2, a polymethyl-siloxane liq. of viscosity 950-1050 cst. 2.0-4.0, glycerin 2.0-4.0, O-oxybenzoic acid 0.5-1.0, diethylbenzamide 0.5-1.0 and water to 100.

The compsn. provides a good quality skin with good deterioration resistance. (9pp)

BRTA D18 12915 C/08 = US 4292-032

Mfg. cigarette filter tips contg. annular smoke barriers - by depositing barrier material in annular grooves formed in sticks of filter material

BRIT AMER TOBACCO LTD 19.10.78-GB-041133

A97 P15 (29.09.81) *BE-879-257 A24c-05/50

04.10.79 as 081864 (1376TM)

Annular grooves in cigarette filter are filled with a tobacco smoke barrier material as the filters are conveyed transverse to their axes along an arcuate path, pref. on a drum.

The grooves are pref. formed by heat and pressure. The filter may be of cellulose acetate. Filters can be made on one machine. (6pp)

See Also

D23 US 4282447

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

OREA * D21 75734 D/42 ★BE-888-201
Nail varnish compsn. contg. copolymer - of polar monomer e.g. methacrylic acid, methacrylate and acrylate esters, as replacement for nitrocellulose

L'OREAL SA 01.04.80-FR-007328

A96 G02 (A14) (30.09.81) A61k-07/04

31.03.81 as 888201 (950WB)

Varnish contains in a suitable solvent a resin comprising a copolymer of (1) a polar monomer of formula (I) $R_2-CH=C(R_1)-R_3(I)$, (2) a methacrylate of formula (II), $CH_2-C(CH_3)-COOR_6(II)$, and (3) an acrylate of formula (III) $CH_2=CH-COOR_7(III)$.

In (I) R_1 is H, CH_3 or $-CH_2COOH$; if R_1 is H, R_2 is (a) either H and R_3 is $COOH$, SO_3H , $-C_6H_4-SO_3H$, $-CONH-CH(OH)-COOH$, $-CONH-C(CH_3)_2-CH_2-SO_3H$ or $COOR_4$, R_4 is glycidyl, mono- or di-hydroxyalkyl (the alkyl having 2-4C) or $-(CH_2CH_2-O)-R'$, R' being (m)ethyl and l is 3 or 4; (b) either $COOH$ and R_3 is CO_2R_5 or $-CONHR_5$; R_5 being H or 1-4C alkyl; R_1 is CH_3 or CH_2COOH R_2 is H and R_3 is $COOH$ or $COOR_4$; In (II) R_6 is opt. branched alkyl of 1-18C or $-CH_2-CH_2-N(CH_3)_2$ and in (III) R_7 is opt. branched 1-18C alkyl.

The varnish has good gloss and adhesion to nail. The resin can replace the conventional nitrocellulose as film-forming component wholly or partly and is cheaper and less hazardous. (19pp)

OREA * D21 75741 D/42 ★BE-888-228
Coffee oil for use as solar filtering agent - specific for UV rays of 280-320 nanometre wavelength

L'OREAL SA 02.04.80-LU-082323

(01.10.81) A61k-07

01.04.81 as 888228 (597WB)

The oil is used in cosmetic compsns. for the hair and skin and also to protect compsns. sensitive to UV light. The oil is pref. deodorised and has an enriched terpene fraction. The oil pref. contains 74-78% triglycerides 18-21% cafestol and kahweol monoesters, 2-4% phosphatides, 1-2% sterol ester and 1-2% free cafestol or kahweol. The cosmetic compsn. pref. contains other filtering agents also the usual cosmetic ingredients.

Coffee extracts previously had the disadvantage of adsorption of rays 280-405 nm wavelength. The above is selective enabling bronzing by rays of wavelength 320-400nm. (13pp)

ERAP * D21 75769 D/42 ★BE-889-109
Stable oil-in-water emulsion prepn. - using emulsifier contg. sulphoxide gp. in lipophilic part

SOC NAT ELF AQUITAI 06.06.80-FR-012622

C03 E19 (01.10.81) A61k B01f C11d

06.06.81 as 889109 (950KB)

Stable o/w emulsions are prepd. using emulsifiers having a lipophilic and a hydrophilic parts. The improvement is that the lipophilic part contains a sulphoxide gp. The emulsifier is pref. of formula

$R_1-SO-CH(R_2)-(CH_2)_n-A(I)$

(where R_1 is a hydrocarbyl gp., R_2 is H or substd. hydrocarbyl, n is 2 to 20 (4-18), A is a hydrophilic gp. such as acid which may be esterified, salified, a polyoxyalkylene chain, a tetravalent N cation or an aminoacid.

The emulsifier gives very stable emulsions and is partic. useful in cosmetology. It can also be used for emulsifying insecticides and fungicides. (18pp)

MULL/ * D21 75807 D/42 ★CH-625-581
Shower additive block - includes cetyl alcohol, perfume, wax compsn. etc.

MULLER K 16.06.77-CH-007813

A97 Q42 (30.09.81) A61k-07/50 C11d-03/50 E03c-01/04

16.06.77 as 007813 (903AT)

Showering compsn. which can be mounted directly in the shower or in a suitable by-pass comprises: 'Carbowax 4000' 70.00; 'solubidilat S12' 4.00; 'G4' 0.10 (RTM), cetyl alcohol 20.00; perfume 3.00. (2pp)

ZEIS/ * D21 75856 D/42 ★DE 3008-431
Metal pins inserted into plastics baseplate esp. for dental patterns - by hot plate pressing pins into holes in plate

ZEISER M 05.03.80-DE-008431

A32 P32 (A96) (08.10.81) A61c-13 B29c-27/12

05.03.80 as 008431 (236HM)

An apparatus for pushing metal pins into receiving bores in a plastics base plate is intended esp. for producing dental patterns. The base plate is placed on a seating beneath a heated plate; the seating is then raised by a lifting mechanism towards the heated plate, so that the latter pushes the pins into the base plate, at the same time heating them by contact at their upper ends.

The seating plate, pref. has a heat-reflecting surface on the upper face. The metal pin used has an arrow head shaped portion of slightly greater length than the depth of the hole in the base plate. The arrow head portion is 0.5-2 mm (1 mm) longer than the

thickness of the base plate. More specifically, the arrow head portion is 11 mm in length.

The process is based upon the concept of not heating the metal pins until they are already seated in the plastics base plate. The pin then penetrates into the baseplate as soon as the heat reaches its tip. (12pp)

WELA * D21 75924 D/42 ★DE 3012-767
Cosmetic anti-dandruff compsn. e.g. shampoo - contg. bi:guanide salt deriv., esp. of oligo hexa:methylene or -tetra;methylene bi:guanide

WELLA AG 02.04.80-DE-012767

E16 (08.10.81) A61k-07 A61k-31/13

02.04.80 as 012767 (200RP)

Cosmetic compsns. contain, as active anti-dandruff ingredients, 1-5 (1-3) wt. % salt of at least one biguanide deriv. having formula

$H-(CH_2)_m-NH-C(=NH)-NH-C(=NH)-NH-nH(I)$

(where m is 1 to 10 and n is 1 to 6), in addn. to standard cosmetic vehicles and additives.

The compsns. are used esp. for shampoos or hair-lotions, or opt. as setting lotions, rinses, hair-oils, etc. The salts of (I) form clear solns. in water or water-alcohol mixts., are non-toxic and do not irritate the skin. (11pp)

ERSA- D21 50125 D/28 = DS 2952-102
Modelling tool for denture wax patterns - with fingertip release collet and heating element

ERSA SACHS E KG GMB 24.12.79-DE-952102

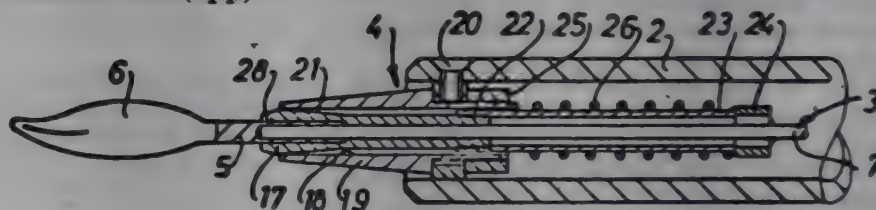
S05 P32 P53 P62 P78 (08.10.81) *EP--31-294 A61c-13/20

24.12.79 as 952102 (39TM)

An electrically heated modelling appliance, specially for use in dental laboratories for work on wax patterns for partial or total dentures, has inside the outer plastic sleeve, which serves as the handle, a carrier tube for a thin tubular section enclosing a heating coil. The front of the sleeve carries an attached retainer which cooperates with the conical outside surface of a collet.

The collet is used to clamp around the shank of the various interchangeable modelling tools and is drawn inside the retainer by a coil spring. A shoulder on the carrier tube can be used to compress the spring and to release a shank from the collet.

This ensures a simple and quick exchange of the tools, even when hot. PS (5pp)



FARB D21 73880 D/41 = EP --36-969
Polymerisation of methyl methacrylate with enol ether - as mol. wt. regulator, avoiding mercaptan(s), esp. for dental prosthesis

BAYER AG 18.03.80-DE-010373

A14 E15 (A60 A96) (07.10.81) *DE3010-373 C08f-20/14 + C08f-02/38

06.03.81 as 101624 (510PW) (G) No-Citns. E(DE FR GB IT)

Methyl metacrylate is polymerised, or copolymerised with up to 25 wt. % of a vinyl monomer, in presence of 0.01-10 (0.05-1) wt. % of an enol ether from a (cyclo)aliphatic aldehyde or ketone.

The enol ether acts as mol. wt. regulator, avoiding the smell and oxidisability of mercaptans. The ether also acts as heat stabiliser in the polymer. The polymer is esp. used for injection moulding, partic. for prodn. of dental prostheses by the powder/liq. process.

Claimed co-monomers are 2-20C alkyl methacrylates, 1-20C acrylates, styrene and 1-4C alkyl-substd. styrenes, and (meth)acrylonitrile, pref. 2-15C methacrylates and/or 1-8C acrylates. (-pp)

HENK D21 73955 D/41 = EP --37-009
Hair and body cleaning compsn. - contg. equal amts. of 12 carbon and 14 carbon alkyl ether sulphate cpds., with reduced irritation towards skin and mucosa

HENKEL KG AUF AKTIEN 26.03.80-DE-011549

E17 (07.10.81) *DE3011-549 + A61k-07/08

18.03.81 as 102001 (1251NS) (G) FR2252840 DE2456438 US3819828 DE2406520 FR2087001 DE2017370 US4137191 1.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Compsn. for washing the hair or body contains a mixt. of 50 wt. % 12C alkyl ether sulphate (I) and 50 wt. % 14C alkyl ether sulphate (II) with 1-5(2-4) ethylene oxide gps. as the ester component. Pref. the mixt. of (I) and (II) represents 1-40 (5-25)wt. % of the compsn. Opt. the compsn. also contains 0.1-20(0.5-5) wt. % of a betaine, esp. an 6-16C alkylidimethyl carboxymethylbetaine and/or a 12-18C alkylamide propyldimethyl carboxymethylbetaine, as emulsifier.

surfactant.

These compsns. have better compatibility towards the skin and mucosa compared with the standard 70% (I)-30% (II) formulations, without redn. in cleaning effect. (13pp)

SUES/ D21 72000 D/40 = EP --37-011
Skin-care and -protective compsns. e.g. ointments - contg. petroleum jelly and non-irritant, non toxic solvent, pref. polysiloxane or isoparaffin

SUESS HR 19.03.80-DE-010572
(07.10.81) *DE3010-572 A61k-07/48 + A61k-09/06
18.03.81 as 102009 (200AS) (G) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Skin-care and -protective compsns. contain, by wt., 10-90(30-70)% petroleum jelly, (I) and 90-10(30-70)% non-toxic solvent, (II), forming clear solns. with (I) at or above (I)-melting range. (II) pref. consists of one or more linear and/or cyclic organo-polysiloxanes and/or of branched paraffins.

Mixt. is used as sun-protective- and skin-care cosmetics. (I) prevents (I)-caused skin irritation and acanthosis. On cooling the solns. of (I) and (II), ointment-like mixts. are obtd. which spread well and penetrate deeply into skin. (II) evaporates quickly off skin, leaving a layer which is not washed off completely with soaps. The compsns. require no preservatives, are odourless and cause no allergies. (17pp)

KAOS * D21 76118 D/42 ★EP --37-161
Storage stable cream cleanser - contg. phosphate ester surfactant, (in)organic salt, polyethylene glycol and additional surfactant

KAOSOAP KK 03.04.80-JP-043710 (05.02.80-JP-012623)
E19 (E37) (07.10.81) A61k-07/08 C11d-01/24 C11d-03/37
19.01.81 as 300216 (1251HM) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL)

Creamy cleansing compsns. comprise (A) 10-60 wt.% at least one surfactant QO.P(O)(OA)2 (I) or (QO)2.P(O).OA (II) (Q is R1(OCH2CH2)); R1 is 8-18C (un)satd. hydrocarbyl; A is H, alkali metal, ammonium or 2-3C alkanolamine, I is 0-10; R1, A and I can be same or different at each occurrence; (B) 0.5-15 wt.% (in)organic salt; (C) 0.5-15 wt.% polyethylene glycol of mol. wt. 4000-10000, and (D) a surfactant.

(D) is (a) 0.1-15 wt.% poly (at least 50) oxyethylene addn. type nonionic, or (b) 0.05-10 wt.% cationic surfactant R4R5N + (CH2CH2O)pH)2X- (III) or R4R5R6R7N + X- (IV) (R4 is 8-18C (un)satd. hydrocarbyl; R5 is (m)ethyl; X is halo; each p is 1-15; R6 is (m)ethyl; R7 is 8-18C (un)satd. hydrocarbyl). Pref. (A) is 100:0-50:50 mixt. of (I) and (II) with all I zero, and (B) is esp. an inorganic alkali metal or ammonium salt. The compsns. are not irritating to the skin or hair; are storage stable without sepn. of components, and their viscosity does not vary significantly with temp. (37pp)

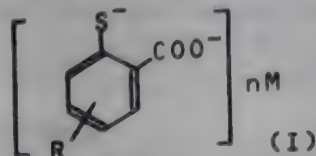
FABR * D21 76184 D/42 ★EP --37-318
Anti:dandruff, anti:seborrhoea thio:salicylic acid metal salt compsn. - esp. zinc, manganese, nickel, iron, silver and copper cpds. including substd. thio:salicylate(s) e.g. 5-chloro, 4-methoxy, 3-methyl cpds.

FABRE PSA 21.03.80-FR-006369
E12 (07.10.81) A61k-07/06
20.03.81 as 400445 (395AT) (F) FR1594624 1.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Compsn. which is applied externally to treat cutaneous disorders, esp. dandruff, contains a R-substd. thiosalicylic acid metal salt of formula (I) (where R is H, halo, alkyl or alkoxy; M is a metallic cation and n is the fractional or whole number of cations necessary to form an electrically neutral salt).

Pref. R is H, chloro, methyl or methoxy; n is 1 or 2 and M is Zn(++) , Cu(++) , Mg(++) , Mn(++) , Fe(++) , Ni(++) or Ag(+). Compns. contg. zinc, manganese, nickel, iron, silver and copper thiosalicylates and zinc orthothiocresotinate, 4-methoxy-thiosalicylate and 5-chloro-thiosalicylate are specifically claimed.

Used in treatment of skin disorders, esp. as an antidandruff and, antiseborrhoeic agent and for preventing ageing of skin. The compsns. may also be used to treat other disorders, e.g. acne. The compsn. may be in the form of a cream, pommade, gel, lotion, spray, etc., but is usually used as a shampoo or hair lotion. (17pp)



CIBA * D21 76209 D/42 ★EP --37-378
Polymer for hair fixing formulations - obtd. by reacting acrylic acid, ethyl acrylate and tert.-butyl-acrylamide in ethanol
CIBA GEIGY AG 27.03.80-US-134383
A14 (A96) (07.10.81) A61k-07/11 C08f-220/54
23.03.81 as 810112 (558MR) (E) No-Citns. E(CH DE FR GB IT LI NL)

An acrylic polymer is prepd. by introducing an ethanol soln. of a monomer mixt. of 6-8wt.% acrylic acid, 37-45wt.% ethyl acrylate and 46-58wt.% tert.-butyl-acrylamide into refluxing ethanol; and, without further heating, continuously and simultaneously adding further monomer mixt. soln. and an ethanol soln. of a free radical generating polymerisation initiator over 1-3 hrs. at a rate that maintains reflux of the mixt. by the heat of the polymerisation reaction, addn. of the monomer mixt. soln. being completed 15-30 mins. before addn. of the initiator soln. is completed.

A hair fixing formulation is obtd. by neutralising the carboxylic gps. of the polymer, in ethanol soln., by titration with aq. KOH and diluting the prod. with ethanol to polymer content 0.2-10wt.%. It can be administered using an air pump or aerosol spray.

The polymer has a good balance of water-solubility and curl retention properties. It is free from unreacted monomers, shows soln. clarity in water and alcohol and can be prepd. with good reproducibility.

The initially used ethanol may contain 30-40wt.% water. 5-15% The total wt. of monomer mixt. soln. can be introduced into the refluxing ethanol in the first step. The initiator is suitably an organic peroxide. The polymer may have an average mol. wt. of 15,000-60,000. (14pp)

OREA * D21 76228 D/42 ★FR 2477-414
Cleaning skin by applying gas foamed aq. suspension - e.g. from aerosol container, produces sensation of tightening as it dries on the skin

L'OREAL SA 04.03.80-FR-004772
(11.09.81) A61k-07/50

04.03.80 as 004772 (448NS)

The prepn. used comprises an aq. suspension of a gelling agent, a surfactant, a film forming agent and an absorbent material. A foam-generating gas is injected into the suspension to produce a prepn. which is to be applied as a lather. The prepn. is spread evenly over the area to be cleaned, allowed to dry and then removed by washing or wiping. The foam generating gas is pref. a fluorocarbon, carbon dioxide, nitrous oxide or a mixt. of these. The gas can be CO2 produced in situ by mixing an organic acid with an alkaline carbonate or bicarbonate. The pH value of the foam is pref. between 4 and 8. (12pp)

LION- * D21 76314 D/42 ★GB 2073-019
Oral compsn. contg. tranexamic acid - including carvone to reduce bitter taste and rough mouth:feel

LION CORP 08.04.80-JP-045823 (08.04.80-JP-045822)
A96 B05 (14.10.81) A61k-07/22

03.04.81 as 010546 (914HM)

In an oral compsn. contg. tranexamic acid, the improvement comprises the presence of 0.1-5 (pref. 0.3-3) wt.% of carvone. Pref. the compsn. also includes (a) l-menthol, where the wt. ratio carvone:l-menthol is 1-9:9-1, pref. 3-7:7-3, (b) a mixed humectant consisting of sorbitol and glycerine in wt. ratio 1-6:9-4, and (c) a binder of which at least 60 wt.% is an alkali metal salt of carboxymethylcellulose.

Tranexamic acid is an antiinflammatory and haemostyptic agent, and when incorporated into oral compsns. (e.g. dentifrices, mouthwashes, chewing gum, etc) it is effective for the prophylaxis of periodontosis (see JP Pat. 49-39818). By blending carvone into the compsn., the bitterness and unpleasant, rough feel of the compsn. caused by the tranexamic acid are reduced. The presence of l-menthol further improves the mouth-feel and also minimises ageing discolouration of the compsn. (13pp)

DENT- * D21 76337 D/42 ★GB 2073-098
Separating wax and plaster in denture mfr. - by treating with hot circulating water

DENTLAB 30.03.81-GB-009868 (02.04.80-GB-010975)
(14.10.81) B29c-25

30.03.81 as 009868 (1358RH)

Wax and plaster of paris are sepd. by mounting the assembly and treating the wax directly or indirectly with hot circulating liq. In partic, the treatment is continued for sufficient time for complete removal of wax from a mould and the melted wax is dispersed by the circulating liq.

Liq. temp. is pref. controlled during treatment and the operation is stopped by a timer. The liq. is pref. drawn by a pump from a vessel and delivered to a spray head in or above a treatment vessel, and the returning liq. passes through a strainer and baffle to minimise wax intake by the pump. (9pp)

+ P32 (29.09.81) *EP
13 07 79 23 057449 (945PW)

compsn. contg. microencapsulated flavourant. The microcapsule walls are water-insol., but dissolve in saliva to slowly release the flavourant to mask bad breath smells and provide a cooling effect.

The microcapsules are present in an amt. of 6 wt.% and consist of 91 wt.% liq. flavourant, 4.25 wt.% gelatin, 4.25 wt.% gum arabic, 0.25 wt.% glutaraldehyde and 0.25 wt.% Na silicate. The paste consists of 51 wt.% karaya gum, 30 wt.% petrolatum, 0.1 wt.% propylparaben, 12.4 wt.% mineral oil and 0.4 wt.% titania. Pref. mint flavourant is used. (4pp)

UNMI ★ D21 77606 D/42 ★ US 4292-029
Treatment of teeth with polymerisable compsns. - contg. inert organic filler and fluorine-contg. monomer

UNIV OF MICHIGAN 05.09.79-US-072676 (15.05.78-US-905936)
A96 (A12 A14) (29.09.81) A61k-05/06
05.09.79 as 072676 (478BZ)

Teeth are treated by polymerising a dental compsn. on the tooth so that the polymerised compsn. (a) is hydrophobic so that the sum of the free surface energy changes as a result of saliva wetting the tooth surface and the polymerised compsn. is +ve, and (b) shows an advancing contact angle w.r.t. H₂O of at least 130 g. The unpolymerised dental compsn. contains 10-90 wt.% of a finely divided, inert organic filler (I), and 90-10 wt.% of one or more F-contg. monomers. (II).

(II) is a perfluoroalkyl acrylate; aromatic diacrylate contg. ring-substd. F; R₁C(=CH₂)CO₂R₂ (R₁ is 1-4C alkyl; R₂ is Me(CF₂)_n, (CF₂)₃, Ph substd. by 1-6F, or CF₂CF(Me)CF_xH_{3-x}; n is 1-8; x is 1-3); or a fluorinated analogue of an aliphatic diacrylate.

The hydrophobic dental restorative compsn. has favourable working props., physical props., resiliency, wear and stain resistance. In addn., penetration of fluids between a tooth and a restoration is prevented without chemical adhesion between the two taking place. The compsn. can be moulded at ambient temps. with finger pressure, and has very satisfactory gel and set times, etc. (6pp)

HENK D21 51771 C/30 = US 4292-088
Substitute for beeswax in cosmetics - consists of fatty acid glycerides and ester, free fatty acid and branched chain mono:carboxylic acid

HENKEL KG AUF AKTIEN 27.12.78-DE-856277
(29.09.81) *DE2856-277 A61k-07 C081-91/06
10.12.79 as 102266 (945PW)

Substitute beeswax compsn. comprises (A) 3-15 wt.% alpha-branched, aliphatic monocarboxylic acids of formula RCH₂CH₂CH₂COOH (where R is 12-20C n-alkyl), (B) 15-30 wt.% esters of 12-22C chain length fatty alcohols and 14-22C chain length fatty acids, (C) 5-20 wt.% triglycerides of palmitic, (hydroxy) stearic or behenic acid, (D) 20-40 wt.% mono and/or diglycerides of the same acids, (E) 5-20 wt.% 16-22C chain length (hydroxy) fatty acids and (F) 0-30 wt.% microcrystalline paraffins of m.pt. 70-72 deg.C.

The compsn. is used to make cosmetic prods. which do not differ significantly from those prepd. with beeswax. (5pp)

HENK ★ D21 77697 D/42 ★ US 4292-212
Single aq. phase shampoo-creme rinse compsn. - contg. amphoteric detergent, anionic detergent, and cationic deriv. 3-(tri:methylamino)-2-hydroxypropyl guar chloride salt

HENKEL CORP 29.11.78-US-964567
E16 (29.09.81) A61k-07/08 C11d-01/88 C11d-03/37
29.11.78 as 964567 (478MR)

Shampoo-cream rinse compsn. contains (by wt.) 5-20% of one or amphoteric detergents (I); 5-20% of one or more anionic detergents (II); and 0.1-5% 3-(trimethylamino)-2-hydroxypropyl guar chloride salt (II). (III) is derived from particulate guar in which 89% of particles are not above 45 microns, and 98% of particles are not above 105 microns.

Claims to the present patent have been made in US4061602. Prefd. compsns. contain (by wt.) 7-17%, esp. 10% (I); 7-17% esp. 10% (II); and 0.2-2% (III). (I) include fatty alkyl dicarboxylic acid derivs. of imidazolines, alkyl beta-aminopropionates, sultaines, and betaines, etc. pref. the dicarboxylic coconut deriv. 'Miranol C2M-SF' (RTM). (II) include Na lauryl sulphate, Na polyhydroxy monoether sulphate, etc. pref. cocoyl sarcosine ('Hamposyl C' (RTM)). (III) are described in US 3589978, e.g. 'Cosmedia C-261' (RTM).

Opt. compsns. may also contain 0.1-5% pref. 0.1-1% by wt. of a

nonionic detergent (pref. polyethylene glycol 6000 distearate). Compsns. have pH 4.5-8, pref. 5.5-7.5. Compsn. contained (by wt. solids) 'Deriphat 160C' (RTM) (10%), 'Standapol ES-40' (RTM) (10%), 'Cosmedia C-261' (0.5%), and H₂O (to 100%). Single compatible compsn. imparts improved combing props., improved hair conditioning and observable highly desirable shine or lustre to hair. (3pp)

BARE/ ★ D21 77739 D/42 ★ US 4292-304
Encapsulated oil-based dentifrice - contg. oil base, abrasive agent, surfactant, and vitamin/E

BARELS R R 30.09.80-US-192465
(29.09.81) A61k-09/48 A61k-31/35
30.09.80 as 192465 (478HM)

Encapsulated dentifrice consists of an edible capsule (formed of H₂O-soluble, but oil-insol. gelatin (I)) contg. contains (by wt.) 10-85% edible oil base (II), 3.35% abrasive agent (III) (to remove plaque), a surfactant (IV), and at least 10 mg of vitamin E. In use, the capsule is crushed between the user's teeth.

Wt. ratio (II):(III) is 1-8:8-1, pref. greater than 1:1. Prefd. dentifrices contain 60-85% by wt. (II) and 5-35% by wt. (III). (II) is pref. a liq. vegetable oil, esp. safflower oil. (III) pref. has radioactive dentine abrasion value 100-500, and is suitably CaCO₃, di-Ca phosphate, CaSO₄ CaSO₄ etc. (IV) may be nonionic cationic or anionic, pref. Na lauryl sulphate, and amt. is 3-15% by wt. of compsn. Opt. oil-based compsn. may also contain a fluoride (esp. SnF₂), sweetener, flavour, etc. (6pp)

FAUN/ ★ D21 77740 D/42 ★ US 4292-306
Gel-like, water free dentifrice - contains, stannous fluoride, sodium dihydrogen phosphate and carrier

FAUNCE F R 08.11.79-US-092277 (28.12.78-US-973910)
B06 (29.09.81) A61k-07/18
08.11.79 as 092277 (985BZ)

A dentifrice comprises (a) 0.03-0.05 wt.% stannous fluoride; (b) sodium dihydrogen phosphate to give pH 3.5 and to develop an energised tooth surface for enhancement of topical treatment; and (c) a water-free gel carrier which inhibits deterioration of SnF₂ and NaH₂PO₄ prior to use in an aq. environment. The SnF₂ and NaH₂PO₄ form a complex stannous fluoride fluorophosphate cpd. (I) at the energised tooth surface which develops a caries inhibiting fluorophosphate complex (II) within the crystalline lattice of the tooth enamel.

The dentifrice is a non-foaming, non-burning and ingestible topical fluoride treatment. As there is no need to rinse, the fluoride remains on the surface of the teeth - this provides a more effective barrier than conventional dentifrices which are adapted to be rinsed in the mouth. As the dentifrice is water-free, there is no tendency for the SnF₂ to decompose to inert stannic fluoride. (7pp)

WACK D21 53546 D/30 = US 4292-434
Silicon cpd. addn. to unsatd. aliphatic cpd. - using platinum halide reacted with olefin and amine as catalyst

WACKER CHEMIE GMBH 10.01.80-DE-000768
A26 E11 G02 P42 (A82 A96) (29.09.81) *DE3000-768 C07f-07/08
10.11.80 as 205140 (936MR)

In the addn. of Si-bonded H to an aliphatic multiple bond in the presence of Pt catalyst, the improvement comprises effecting the addn. reaction in the presence of catalyst soln. obtd. by reaction of Pt halide (I) with at least 20 pts.wt. olefin for each pt.wt. (I), and heating the soln. obtd. with 0.5-1 mole prim. or sec. amine for each g atom Pt.

(I) may also contain H or O atoms. A pref. (I) is PtCl₄. Pref. the soln. is heated to 60-120 deg.C for 10 minutes to 5 hrs. or at 40-100 deg.C for 10 mins. to 2 hrs. Amine is pref. a sec. butylamine.

Catalyst does not promote polymerisation of the initial reactants of formation of undesired end prods.

Process may be used to modify polymer Si-contg. cpd. e.g. in coating compsns. by crosslinking. (4pp)

See Also

D13 J5 6113729 D22 EP 37224 D22 US 4292430
D23 US 4292210

POSP/★ D22 D/42 ★CS 8009-237
2-Amino-6-hydroxy-4-oxo-5-carboxybutyl-3,4 di:hydro-
pyrimidine(s) - by new prepn. which are microbially acceptable
POSPISIL A 23.12.80-CS-009237
E13 (10.09.81) C07d-239/62

FRAU★ D22 75973 D/42 ★DE 3018-255
Adsorption and catalytic decomposition of intestinal gases - e.g.
in colostomy patients using a porous adsorbent surface-coated
with aluminium, zinc, chromium or iron

FRAUNHOFER-GES FORD ANGE 03.04.80-DE-013255
(08.10.81) B01d-53/04 B01j-19/04

03.04.80 as 013255 (1280KB)

In the adsorption and catalytic decomposition of ill-smelling intestinal gases (esp. mercaptans), the intestinal gas is passed through a highly specific adsorbent which form a mixt. of water vapour, methanol, carbon monoxide, carbon dioxide and various S-contg. gases (esp. mercaptan-contg. gases) catalytically decomposes and adsorbs only the sulphur- or mercaptan-cpds., these opt. being desorbed in the form of odourless fragments.

New highly specific adsorbent for use in the procedure contains an inert, highly porous solid with a specific surface (BET) of 900-1800 sq. m/g of pyrogenic silica with a specific surface of 50-500 sq. m/g (specific surfaces being measured by argon adsorption at -196 deg. C) the surface of which is occupied by 0.1-5 wt.% Al, Zn, Cr or Fe with a specific surface of 1000 sq. m/g.

Used in suppression of mercaptan odour in patients fitted with an anal prosthesis (e.g. after surgical treatment of intestinal cancer). (24pp)

UYFL- D22 78321 A/44 =DS 2818-630
Metal-coated biologically active glass - used to make artificial
implant useful in orthopaedics and dentistry

UNIV FLORIDA 19.05.77-US-798671

L01 M13 P33 + P32 P42 (08.10.81) *BE-866-323 A61f-01 C03c-
03/30 C03c-29

25.04.78 as 818630 (1438MR)

A prosthesis or surgical implant, for forming a cement-free joint with a bone, is produced by heating a metal substrate, with a roughened and oxidised surface, to a max. temp. (T1). This temp. is chosen so that the expansion coefft. of the glass or glass ceramic coating to be applied to the substrate is essentially the same as that of the metal. The metal surface is dipped into the molten glass, to form a surface layer between 0.2 and 2 mm thick. The coating of glass is then rapidly cooled.

A coating of the biologically active glass or glass ceramic is applied to the substrate simply and efficiently, without causing thermomechanical stresses. PS (7pp)

HOPE/★ D22 76024 D/42 ★EP --36-910
Thermal bandage - with sealed interior holding low freezing point
liquid to remain flexible at low temp.

HOPE TCF 21.03.80-EP-200253

A96 P32 (07.10.81) A61f-07/10

21.03.80 as 200253 (1358NS) (E) US2697424 US2595328 US2378087 US2366989 DE1930103 BE-711813 FR2063258 GB1404171 US3463161 US3075529 DS-629448 FR1365666 E(AT BE CH DE FR GB IT LU NL SE)

A bandage for treating e.g. sprains, bruises or burns includes a flexible container sealed to contain liquid with low freezing point so that the bandage remains flexible at low temp. and will conform to the patient's body. The freezing point is pref. below 0 deg.C so that the bandage can be stored ready for use in a domestic freezer.

The liq. is pref. comprises water - 20 vol.% glycerol and contains alkyldimethylbenzyl-ammoniumchloride as antibacterial agent and silicone A.M.439 as anti-foaming agent. The bandage is pref. rectangular and has straps secured to opposite ends and spaced transverse hinges so that it can easily be bent about a limb. The bandage may have spaced cutouts for use on the face. (12pp)

PROC★ D22 76148 D/42 ★EP --37-224
Water soluble rare earth metal carboxylate(s) - useful as broad
spectrum antimicrobials in medicinal, cosmetic and cleansing
compens.

PROCTER & GAMBLE CO 24.03.80-US-133380

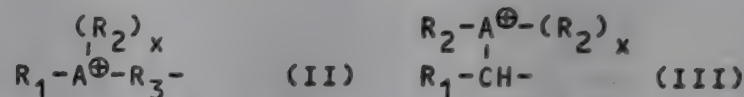
B05 E12 (D21 D25) (07.10.81) A01n-33 A61k-07/16 A61k-31/09
C07c-51/41 C11d-01/88 C11d-03/48

23.03.81 as 301219 (1248) (E) EP--18019 GB1475971 US4051234 US4067962 GB2001849 DE2827666 US4217343 FR1604432 4.Jnl.Ref E(BE DE FR GB IT NL)

Water-soluble rare earth metal carboxylates of formula (I) (RCOO)3M (I) are new, (M is a rare earth metal; R is 8-18C hydrocarbyl-ethoxylate gp. contg. 1-15 ethylene oxide units, 8-18C hydrocarbyl glyceryl ether gp., 8-18C hydrocarbyl monoglycidate gp., 18C hydrocarbyl ester gp. or a cation gp. of formula R⁺ where R is 8-22C hydrocarbyl, R⁺ is 1-4C

hydrocarbyl or an ethylene oxide gp. contg. 1-5 ethylene oxide units; x is 1 and A is N or P; or x is 1 and A is S; and R3 is 1-10C hydrocarbyl or an ethylene oxide gp. contg. 1-10 ethylene oxide units).

Cpds. (I) are antimicrobial agents esp. suitable for inclusion in surface cleaners, cosmetics and oral compsns. such as dentifrices and mouthwashes. Cpds. (I) are less toxic orally than the common cationic surfactant-type antimicrobials and mutant strains of micro-organisms resistant to (I) are not formed. Cpds. (I) are used topically at low concns. but they are acceptability mild at relatively mild concns., and they kill or control bacteria with only minimal contact time. The cpds. are effective against *Pityrosporum ovale*, the causative micro-organism for dandruff. Cpds. (I) may be included in oral prods. for human ingestion to control intestinal tract bacteria, esp. at doses of 1-100 mg/kg. (23pp)



FARB D22 67250 A/38 =GB 1600-103
Antimycotic synthetic polymer fibres - contain incorporated
azole deriv. added to material for soln. or melt polymerisation
(BE 11.9.78)

BAYER AG 10.03.77-DE-710496

A60 E13 F01 + P34 (14.10.81) *DE2710-496 A61k-09/70 + A01n-
25/10

07.03.78 as 008975 (982MR)

Antimycotically active fibres or filaments of a synthetic polymer contain an azole deriv. of formula

R1R2R3.C.(CH2)n.AZ (I)

In (I), AZ is opt. substd. imidazole or triazole cpd.; n is 0 or 1; R1 is H, opt. substd. (cyclo)aliphatic gp., or opt. substd. phenyl opt. attached via O atom, or pyridyl; R2 is opt. substd. phenyl, opt. attached e.g. via bond or alkylene chain; R3 is opt. substd. phenyl, opt. substd. (cyclo)aliphatic gp., opt. substd. 5-member hetero-aromatic gp., carboxylic acid gp. deriv., etc.; or R2-3, where both are opt. substd. phenyl, are attached to each other in the o-positions through a single bond, alkylene chain, vinyl gp., O or S.

Prod. is used in the prodn. of textiles to prevent fungi attaching to the textiles. (18pp)

CCCP★ D22 76310 D/42 ★GB 1600-505
Veterinary heat therapy bandage - comprises plastics film
envelope with compartments holding material of high heat
capacity

CROWN CHEMICAL CORP 24.08.77-GB-026579

E17 P32 (14.10.81) A61f-07

26.04.78 as ----- (008BZ)

The plastics-film envelope is divided transversely into compartments which hold mouldable material of high heat capacity. Slotted side flaps carry two or more lengthwise attachment tapes. Pref. the material in the compartments is a mixt. of water, propylene glycol and a cellulosic thickener.

Pref. there are three compartments, of which the two outer are wider than the inner.

Re-usable heat-therapy bandage, heatable in boiled water or coolable in fridges and iceboxes. (5pp)

HILL-★ D22 76407 D/42 ★GB 2073-416
Disposable swab and culture unit - cap carrying swab to displace
plug sealing liq. culture medium in tube

HILLWOOD CORP 31.03.80-US-135422

A96 S03 (S05) (14.10.81) C12q-01/24 G01n-33/48

31.03.81 as 000007 (1358HM)

Disposable swab and culture unit has a cylindrical container holding liquid culture medium and with a plug inserted to seal in the liquid and having a conical face and a base slightly larger than the cylinder i.d. The container is closed above the plug by a cap carrying a swab.

The container is pref. of polypropylene or a copolymer blend so that the lower end can be closed by heating and crimping and the plug can bulge the wall outwardly slightly to maintain a seal. After taking a sample the swab can be pushed against the plug to pivot it and allow contact with the liquid. The cap pref. has two internal annular lips to form an interference fit and seal on the container exterior. (6pp)

MITU★ D22 76441 D/42 ★J5 6110-608
Antiseptic contg. naphtho-(2,8-D)-thiazole-4,9-dione - and e.g. talc
or alcohol, is effective against Basidiomycetes, Ascomycetes etc.
MITSUBISHI CHEM IND KK 04.02.80-JP-012165

A96 B02 E13 (01.09.81) A01n-43/78

04.02.80 as 012165 (42NS)

principal component is new.

Pref. (II) is supported on e.g. talc, bentonite, kaoline, titanium, oxide, starch, cyclodextrin etc., or dissolved in a solvent e.g. DMSO, MEK, alcohol, alkyl benzene etc., or is emulsified in water using e.g. alkyl benzene sulphonate, higher alcohol sulphonate, polyoxyethylene alkyl allyl ether, PVA etc. Other antiseptic cpds. e.g. T.B.Z. tetrachloro isophthalo nitrile, parachloromethaxyleneol etc. may be mixed in (I). (3pp)

EART-★ D22 76442 D/42 ★ J5 6110-604
Insect repellent active e.g. against cockroaches - contains alkenyl-iso-thiocyanate as active cpd.

EARTH SEIYAKU KK 08.02.80-JP-015073

C03 E16 (01.09.81) A01n-47/48

08.02.80 as 015073 (117AS)

Insect pest repellent contains as an active ingredient a cpd. of formula

NCS-(CH₂)_n-COOR (I)

(where R is 3-6C n-alkenyl or alkynyl and n is 1-5). Repellent has high activity against cockroach, fly, mosquito, horse-fly, house-bug, or other sanitary pests as well as against Tinea Pellionella, Nemapogon granella, Tribolium castaneum, Sitophilus Zeamais, Formica japonica etc.

Repellent can be used as paint, dust, emulsion, wettable powder, suspension, dispersion, cream, aerosol, liquid formulation etc., in combination with a solid carrier, e.g. silicic acid, clay kaolin, activated carbon, bentonite, talc, calcium carbonate, wood chips, soybean powder, starch etc., or a liquid carrier e.g. water methyl alcohol, ethyl alcohol, acetone, etc., together with other pest repellents insecticides, fungicides, herbicides, fertilizers, stabilisers, colourants, antioxidants, emulsifiers, dispersants, wetting agents, stabilisers spreaders etc. Amt. of (I) in liq. formulation is e.g. 1-80 wt.%, and in dust is e.g. 1-50 wt.%. (13pp)

YAMA ★ D22 76449 D/42 ★ J5 6110-612
Readily disintegrable and absorbed compression formulation - prepd. by fluidised bed granulation of blend of active component and two components e.g. PVA and glycerine

YAMANOUCHI PHARM KK 08.02.80-JP-014413

A96 B07 (01.09.81) A61k-09/16 A61k-31/44

08.02.80 as 014413 (108AS)

Compression formulation obtd. by fluidised bed granulating a blend prepd. by mixing the difficultly water-soluble drug with one or more components (component 1a) selected from PVA, methylcellulose, HPC, HPMC and solid polyethyleneglycol, or a blend which is prepd. by mixing the drug with one or more component (component 1b) selected from PVA, urea, citric acid, mannitol, succinic acid, methylcellulose, HPC, HPMC and amino acid, and one or more components (component 2) selected from surface active agent, polyethyleneglycol, propyleneglycol, glycerine, glycerine, fatty acid ester, and vegetable oil.

Mol.wt. of solid polyethylene glycol is pref. 4000-20000. Amino acid is pref. threonine, glycine, alanine or lysine. Surface active agent is pref. anionic or nonionic. (6pp)

LIOY ★ D22 76450 D/42 ★ J5 6110-613
Plaster with pressure-sensitive adhesive layer - partially covered with porous sheet, hydrogel layer contg. active components and covering sheet

LION CORP(NITL) 08.02.80-JP-015064

A96 B07 P32 P34 (01.09.81) A61f-13/02 A61k-09/70 A61l-15/06

08.02.80 as 015064 (42AS)

Plaster (I) comprises (a) a pressure-sensitive adhesive (II)-layer painted on a surface of a film; (b) a porous sheet (III) partially covering (II); (c) a hydrogel (IV)-layer contg. medical components partially covering (III); and (d) a sheet covering (IV) and the exposed parts of (II) and (III), that can be easily peeled off.

Pref. (III) includes fibrous sheets and sponge. Typically (IV) is prepd. by mixing e.g. sodium polyacrylate, potassium acrylate, polyacrylic acid etc. with water, and adding cross-linking agent such as polyethylene glycol diglycidyl ether, triglycidyl isocyanurate etc., and softness-holding (sic) agent such as ethylene glycol, diethylene, glycol, or glycerol. (3pp)

HAYA-★ D22 76668 D/42 ★ J5 6111-659
Butyl rubber sealing cpd. contg. tannic acid - extruded to form protective cap also forms corrosion inhibiting tannate with substrate metal

HAYAKAWA GUM KK 08.02.80-JP-015303

A93 G04 M14 P73 (03.09.81) B29h-09/10 B32b-25/04

08.02.80 as 015303 (59BZ)

A sealing rubber cpd. is prepd. by blending butyl rubber opt. mixed with other plastic material (e.g. polyisoprene, natural rubber, polyisobutylene, ethylene/propylene copolymer rubber, polybutadiene, styrene/butadiene block copolymer rubber, polybutadiene, styrene/butadiene block copolymer rubber, polyethylene, ethylene/vinyl acetate copolymer, etc.) with a tackifier, softening tackifier, softening agent, filler, antioxidant, pigment, tannic acid (0.05-5 wt.%) and antibiotic (e.g. Methasol TK-100 and Prepentol A4 (RTM) (0.01-1 wt.%). The sealing cpd. is extruded through a hand gun set at 120-180 deg.C. into a protective cup having a size of slightly larger than a bolt head or nut and the cup is pressed against the bolt head or nut to seal the cup firmly with the bolt thread or nut.

Tannic acid becomes reactive during the high temp. pressing of cup against bolt head or nut to form ferric tannate film on the surface thereof by being contacted with the steel surface to inhibit the corrosion together with the overlaid sealing cpd. (4pp)

SHIJ ★ D22 76698 D/42 ★ J5 6112-253
Dissolution of solid chlorine-based disinfectant or sterilising agent - by charging in tablet form into vertical cylinder and introducing water via sprays at different levels

SHIKOKU CHEM IND KK 07.02.80-JP-015117

E13 P34 (E12) (04.09.81) A61l-02/18 B01f-01

07.02.80 as 015117 (117DH)

A solid chlorine based agent, e.g., of trichloroisocyanuric acid, dichloroisocyanuric acid, sodium dichloroisocyanurate, or potassium dichloroisocyanurate, is tableted under a face pressure of approx. 250kg/cm² or more and then put into a vertical cylinder. Water from a number of water sprinkler tubes is provided at different levels and flows in a shower form along the surfaces of the tablets by controlling the flow rate by a regulating valve provided in the water sprinkler tubes at an average falling flow rate (or a value obtained by dividing the vol. per hour of water supplied by the cross-sectional area of the solid chlorine agent tablets-filled layer) of 0.25 to 800 m³/m² hr.

A soln. containing chlorine is obtd. in accurate quantitative amounts by a simplified method over a long period of time. (6pp)

NIIO ★ D22 76699 D/42 ★ J5 6112-254
Deodorisation of exhaust or waste gases - by spraying with liquefied carbon dioxide gas contg. dissolved organic acid and/or its ester

NIPPON SANSO 12.02.80-JP-015799

J01 P34 (04.09.81) A61l-09/14 B01d-53/34

12.02.80 as 015799 (117BZ)

A deodorisation method comprises spraying a liquefied carbon dioxide gas, in which an organic acid, its ester, or their mixt e.g. myristyl alcohol, lauryl methacrylate, or geranyl crotonate, having a physical absorptive action, is dissolved in an amt of 1 to 2 wt %, from the nozzle of a pressure container.

The method removes the offensive odours of various waste or exhaust gases discharged from various mfg processes or combustion appts, etc., simply and economically without using for specific equipments and fuels or special power for deodorisation as compared with the conventional methods, e.g. incineration, washing or flushing, adsorption, etc. The deodorisation method is usable also in households and offices. In addn, the liquefied carbon dioxide gas may be mixed with an adequate perfume. (4pp)

KURS ★ D22 76827 D/42 ★ J5 6112-946
Hydrated gelated rubber prods. for insulation etc. - obtd. by blending (modified) liq. butadiene rubber with water and surfactant etc. then crosslinking

KURARAY KK 11.02.80-JP-015136

A12 B07 (05.09.81) C08l-09

11.02.80 as 015136 (59RP)

Liquid butadiene rubber contg. up to 35% of vinyl bond and having mol.wt. of 8,000-120,000 as measured by the intrinsic viscosity (e.g. prepd. by polymerising butadiene or a mixt. of butadiene and isoprene in the presence of metallic Li or an organic Li cpd.) or modified liquid butadiene rubber obtd. by the addn. reaction with an unsatd. carboxylic acid (e.g. acrylic, methacrylic, fumaric, maleic, crotonic or citraconic acid, etc.) or introducing epoxy gp., is added with H₂O in the presence of a surfactant (e.g. having H.L.B. of 2-12, e.g. polyoxyethylene nonylphenyl ether, polyethylene glycol oleyl ether, etc.) to provide W/O emulsion, which is then crosslinked in the presence of a crosslinking agent (e.g. S, peroxides, quinoids, etc.) together with other additives.

The hydrated gelated prods. are usable as a heat or cold insulating material, odour retaining material, tackifier for medical purposes, cataplasm, buffering material, etc. (7pp)

MITQ ★ D22 76905 D/42 ★ J5 6113-824
Appts. for deodorising gas - using chemicals, e.g. sodium hypochlorite poured into circulating liq. flowing in washing column

MITSUBISHI ELECTRIC CORP 12.02.80-JP-015624

J01 (07.09.81) B01d-53/34

12.02.80 as 015624 (59RW)

Appts. is claimed for deodourising a dirty malodorous gas using cleaning chemicals such as NaClO poured into a circulating liq. flowing in a washing column. Its gas inlet is connected to a gas outlet of another identical column but having no means for pouring the cleaning chemicals into the circulating liquid flowing in this column. The object is to make the most use of the chemicals and save supplement of the circulating liquid such as water.

An overflow pipe is connected between both columns to feed naturally the liq. contg. the chemicals into the second said column from the first. (3pp)

MITQ ★ D22 76906 D/42 ★ J5 6113-325
Device for deodorising waste gas - in which feed rate of sodium hypochlorite soln. sprayed into wash column is controlled
MITSUBISHI ELECTRIC CORP 12.02.80-JP-015626
J01 (07.09.81) B01d-53/34
12.02.80 as 015626 (26KB)

A device is claimed for deodoursing dirty gas using NaOCl dissolved in water contained in a tank. The soln. is sprayed in a washing column contg. a gas-liq. contacting packed bed. The feed rate of the soln. is optionally controlled. A part of the gas treated in the column is introduced into a mini washing column, in which the gas is washed with the same soln. and then the NaOCl conc. in the used water for washing the gas is detected to control means for controlling the feed rate of NaOCl into the main column. The mini column is in a small scale but is identical to the main column. (4pp)

SHIF ★ D22 76907 D/42 ★ J5 6113-326
Garbage treatment appts. - has fan synchronised with the opening of shutters to garbage treatment chamber
SHINMEIWA IND KK 13.02.80-JP-016962
J01 (07.09.81) B01d-53/34
13.02.80 as 016962 (26KB)

A device is claimed for deodoursing a gas leaking from a closed chamber for treating garbage. The chamber has an openable shutter at each of the inlet and outlet of the chamber.

An exhaust fan is connected to the chamber via a deodourising unit. The fan is driven interlocked with the opening operation of the shutters. The deodourising unit contains a catalyst in a vessel provided with a heater. The heater is interlocked with the shutters so that its heat output is increased on opening the shutter, cf. on closing it. (5pp)

MITQ ★ D22 76908 D/42 ★ J5 6113-327
Device for deodorising waste gas with ozone - in which ozone reactor and catalyst reactor are housed in column
MITSUBISHI ELECTRIC CORP 14.02.80-JP-017020
J01 P34 (07.09.81) A611-09/04 B01d-53/34
14.02.80 as 017020 (26KB)

A device is claimed for oxidising a gas with ozone in an ozone reactor followed by a catalyst reactor contg. a catalyst packed bed such as lithium bromide and active carbon.

The ozone reactor and catalyst reactor are housed in a column. An ozoniser chamber is disposed in a gas pipe of the ozone reactor. Means is provided for mixing the ozone from the ozoniser chamber with the gas fed into this reactor. Two beds are arranged in series so that the gas from the ozone reactor passes through the catalyst bed and active carbon bed in this order. (4pp)

KOIS- ★ D22 76972 D/42 ★ J5 6113-702
Insecticidal compsn. contg. oil-soluble chlorinated insecticide - stabiliser, nonionic surfactant and opt. anionic surfactant, is used to preserve wood
KOISHI PRESERVING K 13.02.80-JP-016903
C03 E19 F09 (07.09.81) A01n-25/02
13.02.80 as 016903 (108NS)

Soluble type insecticide and ant controlling agent (II) for wood, is obtd. by adding nonionic surface active agent and/or anionic surface active agent, stabiliser viz alcohol, glycol or ether, to an oil-soluble organic chlorine type insecticidal and ant controlling component (I).

(I) can be dissolved in water and can be easily injected into wood. In the prior art it was impossible to inject an organic solvent emulsion under pressure since the particles in the emulsion were relatively large.

(I) is e.g. heptachlor, chlordane, dieldrin, aldrin, etc. The amount of surface active agent used is pref. more than 90 wt.% of (I). The pref. stabiliser is (m)ethanol, butanol, isopropylalcohol, monoethyleneglycol, monobutylether, butyldiglycol, diethyleneglycol, triethyleneglycol, etc. The amt. used of stabiliser is pref. more than 90 wt.% of (II). (3pp)

NISY ★ D22 76974 D/42 ★ J5 6113-704
Non-toxic antiseptic compsn. - contg. dehydroacetic acid and its salts, sorbic acid and its salts and alkylamine and its salts
NIPPON SYNTH CHEM IND 14.02.80-JP-018300
E19 (07.09.81) A01n-33/04 A01n-43/16
14.02.80 as 018300 (42KB)

An antiseptic compsn. (I) contains one or more of dehydroacetic acid (II), salts of (II), sorbic acid (III) and salts of (III), and one or more of alkylamines (IV) having 8-18C alkyl gp. and salts of (IV).

Examples of (IV) are actylamine, nonylamine, decylamine, undecylamine, etc., e.g. (dodecylamine). Hydrochlorate, sulphate, acetate, oxalate, succinate, malate, etc. of (IV) are specific salts. The wt. ratio of the sum of (II), (III) and their salts to the sum of (IV) and its salts is 1/0.2-1/0.8, e.g. (1/0.3-1/0.7). (I) is effective when added in a conc. of 50-800 ppm.

(I) is used in pigments, pastes, adhesives etc., shows high antiseptic effect, and is non-toxic. (4pp)

NISC ★ D22 76975 D/42 ★ J5 6113-706
Antifungal compsn. contg. 2-n-octyl-4 iso:thiazoline-3-one - and e.g. 2-(4-thiazolyl)-benzimidazole, p-methyl phenyl iodo:methyl sulphone, and 3,5-di:methyl-4 chlorophenol, used industrially
NISSAN CHEM IND KK 09.02.80-JP-015019
C03 E19 (07.09.81) A01n-31/08 A01n-37/14 A01n-43/80
09.02.80 as 015019 (42NS)

Compsn. (I) contains 2-n-octyl-4-isothiazolin-3-one (II) and (III) one or more 2-(4-thiazolyl)-benzimidazole, p-methyl phenyl iodomethyl sulphone, 3,5-dimethyl-4 chlorophenol and 2,2'-dihydroxy-5,5'-dichlorophenyl methane is new.

(I) is pref. directly applied to the industrial materials mentioned above. (I) can be applied after being made into an emulsion, solution powder, aerosol etc. The amount of (III) mixed is pref. 0.1-10 (0.5-2) pts.wt. per pts.wt. of (II).

(I) shows excellent antifungal effect even in a low conc. (I) is effective especially when used in fibre materials, pigments, paints adhesives, covered wires, leather goods, electric instruments, analysis instruments, optical instruments, synthetic resins, etc. (5pp)

KYOK- ★ D22 77049 D/42 ★ J8 1040-026
Continuous prepn. of humidity resistant card - by treating liner paper with agent contg. antiseptic, the liner then being united with core (J5 8.2.78)
KYOKUTO SHIBOSAN KK 23.07.76-JP-087878
F09 P72 (17.09.81) B31f-01/24
23.07.76 as 087878 (22RH)
On the inner surface of continuously moving liner paper is applied aq. anti-moisture agent soln. contg. antiseptics, and before complete drying, the liner is pressed with the core with the use of binding agent. (J53014096) (6pp)

KNIT= ★ D22 77343 D/42 ★ SU-798-211
Impregnating compsn. for cellulosic textile used in tropics - contg. water, borax and tri:chloro benzoxazolinone for increased PVC adhesion and fire and fungi resistance
KNIT FABR IND RES 30.05.78-SU-649106
A82 E13 F08 (F06) (23.01.81) D06m-11/04 D06m-13/34
30.05.78 as 649106 (114VE)

Impregnating compsn. for prepn. of cellulosic textile material used in synthetic leather etc. mfr. for use in tropics contains borax and 4,5,6-trichloro- benzoxazolin-2-one (I) to give fire-resistant fungicidal properties and increase adhesion to PVC coating. The proposed compsn. has (in g/l): borax 30-70; (I) 1-10; water to 1 l. The (I) is dissolved in aq. borax soln. at pH 9-10. Typically, the compsn. (in g/l): borax 30; (I) 1; water to 1 l. is used to impregnate cotton tricot fabric for 30 mins. at 35-40 deg.C. and liquor ratio 20 l/kg. before expressing to 55-60% moisture content, drying at 80-90 deg.C. and calendering at 120 deg.C. to give properties: tear strength (kg) 15.8 (vertical), 23.5 (horizontal); adhesion 5.5. Bul. 3/23.1.81. (2pp)

KIPO= ★ D22 77457 D/42 ★ SU-799-703
Sterilising liquid products in variety of industries - by moving flow in a heat-exchanger with complete evaporation and condensation of the liquid ingredient
KIEV POLY 15.08.77-SU-519943
(30.01.81) A23c-03 A23l-03/16
15.08.77 as 519943 (29MI)

Method for sterilising liq. prods., in the food, chemical, meat/dairy, and pharmaceutical inds., by creating a flow of the liq. moving along free surfaces in a heat-exchanger, so that the prod. is htd. to the sterilising temp. The quality of the sterilised prod. is increased as a result of applying the heat more uniformly while retaining the original concentration, by doing the htg. through the surfaces of the heat-exchanger. During the heating the prod. is brought to boiling and kept there while the steam

to the sterilisation temp. (2pp)

DOCT = ★ D22 77467 D/42 ★ SU-799-740
Plastic surgery for radiation ulcers - cutting graft, putting polyethylene film underneath, suturing back in place, then moving to new site
DOCTOR RETRAINING 27.04.79-SU-759127
A96 P31 (30.01.81) A61b-17
27.04.79 as 759127 (1462VE)

In plastic surgery or skin ulcers produced, e.g. by X-ray therapy, 7-10 days before the operation, next to the ulcer but at a certain distance from it (1-3 cm. depending on the size of gap to be made up) a local skin and subcutaneous fat graft is marked out and formed. The graft is sepd. together with its base and edges which are later to be moved. Polyethylene film is positioned under the graft and the mobilised edges. The graft is replaced in position and sutured in place. 7-10 days later, the radiation ulcer is cut out, the sutures holding the graft are undone, the film is removed and the prepared graft is moved onto the gap left on the site of the ulcer and sutured in place. The site from which it has been removed is closed by sutures. Bul. Bul.4/30.1.81. (2pp)

SINN/ ★ D22 77567 D/42 ★ US 4291-687
Intestine supporting inflatable surgical packing - with non-inflatable element preventing bowel entering cavity
SINNREICH M 08.02.80-US-119947 (02.03.78-US-882793)
P32 P34 (29.09.81) A61f-05/46 A61m-27
08.02.80 as 119947 (1358WB)

Packing for supporting intestines following hysterectomy or exenteration comprises a central rigid drain tube surrounded by an inflatable bag and with its inner vented end covered by an orificed plate and its outer connected to a suction source. An upper cup-shaped support element has a flat central part with an opening surrounding the tube vented end.

The element has an arcuate peripheral part and is secured to the bag in its central part. The edge of the element seals the upper end of the surgical cavity and supports the bowel from entry so that after surgery the cavity can be irradiated without exposure of the bowel. The element is non-inflatable and prevents pinching of bowel or omentum between packing and cavity wall. (4pp)

GEOR/ ★ D22 77568 D/42 ★ US 4291-697
Sterilisable medical cleaning element - has rupturable pouch holding antiseptic cleaning liquid within handled sponge
GOERGEVICH S 18.04.80-US-141416
A96 P34 (29.09.81) A61m-35
18.04.80 as 141416 (1358WB)

A pouch within a sponge and holding cleaning or antiseptic liquid, is of rupturable plastic film, plastic laminate or aluminium-plastic laminate, has a seal along one side and has one or more weakening lines for rupturing under pressure.

A handle extends across the rear surface of the sponge and is sealed within it adjacent to the pouch so that pressure on sponge and handle ruptures the pouch. Continued pressure on the sponge provides a continuous supply of the liquid. The pouch pref. has a polyester film outer and polyethylene film inner layer and the liquid may contain an iodine compound while the sponge is sterilised by ethylene oxide or radiation. (6pp)

ZIMM- D22 65660 A/37 = US 4292-263
Protective garment with moulded-on cushions - has hydrokinetic characteristics, and is applicable both clinically and as sports wear

ZIMMER USA INC (HANR) 04.03.77-US-774377 (27.08.79-US-069929)
A83 F07 P21 P32 + P36 (A86 A96) (29.09.81) *DE2809-009 + B29d-27/04

27.08.79 as 069929 Div.ex.4193134 (1376MR)
Pad for protecting the body is mfd. by stretching a hydrokinetic fabric sleeve over a male mould, filling a female mould with a water-foamable hydrophilic polyurethane prepolymer and water, and bringing the moulds together.

The water may contain a surfactant and a tert. amine catalyst. The fabric is sufficiently taut to ease wetting and penetration of the foam. % Pad can be used for medical and athletic purposes. (5pp)

TAIY- ★ D22 77728 D/42 ★ US 4292-285
Removal of basic or offensive odour cpds. from gases - with activated carbon and phosphate-impregnated porous carbon
TAIYO KAKEN CO LTD 10.12.79-US-101435 (22.11.77-US-854063)
(29.09.81) B01d-53/34
10.12.79 as 101435 (478HM)

The known method of removing basic cpds. (I) (and others with offensive odours) from large vols. of flowing exhaust gases (low levels of (I)) by treatment with activated C particles is improved as follows: (a) the exhaust gas of controlled humidity is treated in countercurrent flow in a fluidised bed at below 100 deg. C with a mixt. of (i) activated C particles (II), and (ii) porous C particles (III) which have been impregnated with 1-50% by wt. H₃PO₄ and/or NH₄ phosphate; (b) mixt. of (II) and (III) contg. (I) is heated with steam to remove (I) as condensed gaseous matter and to leave the (II)-(III) mixt. which is recycled.

(II) have compression strength 500-1500 g/sq. cm, and are prepd. as follows: (1) a pitch (softening pt. 50-350 deg. C; C-content 80-97%; H:C ratio 0.3-2.5; PhNO₂-insol. fraction of less than 60% by wt.) is mixed with one or more aromatic hydrocarbons and formed into particulate spheres; (2) spheres are immersed in a solvent (pitch insol.; i.e. to extract only the aromatic hydrocarbon); (3) extrd. particles are oxidised at room temp. to 400 deg. C to afford infusible particles; and (4) the particles are then carbonised in an inert atmos. at above 600 deg. C then activated with steam.

Method is inexpensive, effective with low concns. of a variety of (I) (NH₃, pyridine, H₂S, PhOH etc.) and allows the adsorbent to be simply regenerated. (7pp)

BAXT ★ D22 77776 D/42 ★ US 4292-405
Sterility testing of liq. flowing by gravity - to Y-connector supplying two filter units with vents
BAXTER TRAVENOL LABS INC 19.02.80-US-122548
(13.03.78-US-885747)
(29.09.81) C12m-01/12 C12q-01/22

19.02.80 as 122548 (295HM)

The sterility of a liq. sample is determined by allowing it to flow by gravity into a chamber which has a filter. A vacuum pump draws the liq. from the chamber through the filter which is then supplied with a test medium via a port of the chamber. Finally the filter is incubated and examined for signs of bacterial or mould growth. Both during the period when the sample is entering the chamber and also during vacuum filtration, the chamber is vented to atmosphere via a bacteriological and hydrophobic filter.

Preferably the liq. sample is divided into two streams by a Y connector and each stream is fed to an independent chamber. One of these is examined for bacterial growth, and the other for mould growth. The method is used for routine testing of the sterility of bottles of medicament taken at random from a production line. The amt. of liq. supplied to each branch of the Y is identical and is not affected by the head of vacuum across either filter. (7pp)

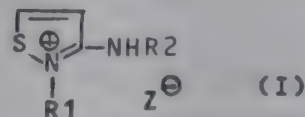
MERI ★ D22 77784 D/42 ★ US 4292-430
2-Hydrocarbyl-3-hydrocarbyl-amino iso-thiazolium salts - useful as broad spectrum antimicrobials for agricultural use, slimicides etc.

MERCK & CO INC 23.11.77-US-854292
B03 C02 E13 (D21) (29.09.81) C07d-275/02
23.11.77 as 854292 (1248MR)

2-Hydrocarbyl-3-hydrocarbylamino isothiazolium salts of formula (I) are new. (R₁ and R₂ are 1-16C alkyl, PhCH₂ or Ph and are the same; and Z is an anion).

Cpds. (I) are broad-spectrum antibacterials and antifungals useful as disinfecting and sterilising agents, esp. for inclusion in soaps or detergents to be used for skin cleansing; they may be used topically to control *Corynebacterium acnes*, a bacterium implicated in acne vulgaris. Applied topically in preps. at 1-2500 ppm. Useful against diseases in agriculture, preservatives for fruit and vegetables, industrial slimicides.

Cpds. (I) are new when R₁ is also H and without the limitation that R₁ and R₂ must be the same. Pref. R₁ and R₂ are both nPr or both iPr. (5pp)



See Also

D16 GB 2073170

D23: OILS; FATS; WAXES

HAAR D23 06252 B/04 = EP G000-476
Natural musk odorant cyclopenta:decanolide prodn. - from 13-oxa-bi:cyclohexadecene

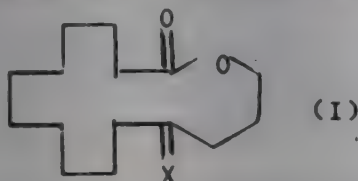
HAARMANN & REIMER GMBH 13.07.77-DE-731543

E13 (07.10.81) *DE2731-543 C07d-313

26.06.78 as 100237 (068TM) (G) DE2410859 3.Jnl.Ref E(BE CH DE FR GB NL)

Cyclopentadecanolide (II) useful as a musk perfume, is prepd. in good yield by first converting 13-oxa-bicyclo(10.4.0) hexa-decene-(1(12)) (III) into lactone of formula (I) (where X is =O, =NOH or =N-NH₂) and then reducing lactone I by the method of Wolff-Kishner or Huang Minlon to form 15-hydroxydecanoic acid, which is cyclised to give (II).

Cpd. (III) may be reacted with nitrosyl chloride or a cpd. yielding nitrosyl ions to give the lactone I which may be converted by hydrazine hydrate in the presence of alkali metal hydroxide, according to Huang Minlon to form 15-hydroxydecanoic acid, which may be polymerised and the resulting linear polyester depolymerised to (II). (4pp)



BUHL D23 02181 B/02 = GB 1600-165
Set gap seal for flaking rolls prodn. - feeds more material into gap from ends than through middle part (NL 28.12.78)

BUEHLER AG 24.06.77-CH-007766

P41 + P71 (14.10.81) *DE2822-244 B02c-04/28 + B29c-15

25.05.78 as 022614 (006AS)

Roller mill, esp. for processing oil seeds, has the ends of its cusp gap sealed by respective members with flow guides which feed material from beyond the roll ends back into the cusp gap. Each member also carries a pin which seals the end of the cusp gap in the region of the nip between the rollers.

The flow guides are recesses normal to the roller axes, and mating with recesses in the pins. Pref. hydraulic press. which loads the rollers also acts to force the sealing pins into operative position against the roller ends. (8pp)

ASAE ★ D23 76563 D/42 ★ J5 6110-798
Thixotropic, heat-resistant fat compsn. - comprising hydrogenated rapeseed oil, hydrogenated vegetable oil and fat with middle and high melting fractions

ASAHI DENKA KOGYO 06.02.80-JP-013402

(02.09.81) A23d-05 C11b-15

06.02.80 as 013402 (126WB)

Compsn. having superior softness and heat resistance over a wide range and superior thixotropicity consists of 60-96 wt.% hydrogenated rapeseed oil having 85-100 iodine value, 0-36 wt.% hydrogenated vegetable oil having 90-110 iodine value, 2-8 wt.% fat contg. 2-25 wt.% middle melting fraction having 23-32 deg.C elevated melting point and at least 30 wt.% high melting fraction having at least 55 deg.C elevated melting point.

The compsn. and fluidises easily and has superior workability. Storage of cream prepd. by using the compsn. is simple because sepn. of solids from liquids of the cream hardly occurs even when exposed to high temp. The fat compsn. is suitable for creams or pastes. (4pp)

HASE ★ D23 77012 D/42 ★ J5 6113-775
2-(2-Methyl-2-propenyl)-4-methyl 2H-5,6-di:hydro:pyran - useful as fragrance-imparting or fragrance modifying agent for perfumes etc.

HASEGAWA KK 12.02.80-JP-014805

E13 (07.09.81) A61k-07/46 C07d-309/04

12.02.80 as 014805 (69RP)

2-(2-Methyl-2-propenyl) 4-methyl-2H-5,6-dihydropyrane of formula (I) is new. Perfume fragrance-imparting agent or fragrance-modifying agent contains (I) as effective component.

(I) may be produced by treating 2-(2-oxo-propyl)-4-methyl-2H-5,6-dihydropyrane of formula (II) with methylenetriphenylphosphorane of formula CH₂=P(Ph)₃ (III) or its reactive components. (6pp)



HASE ★ D23 77018 D/42 ★ J5 6113-776
Tetra-hydro pyran derivs. - useful in perfume and fragrance compns.

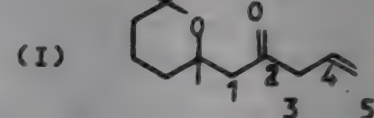
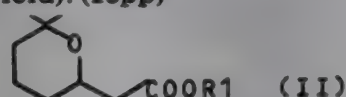
HASEGAWA KK 12.02.80-JP-014803

E13 (07.09.81) A61k-07/46 C07d-309/06

12.02.80 as 014803 (69PW)

1-(2,6,6-Trimethyl-tetrahydropyran-2-yl) 4-pentene-2-one of formula (I) and 2,6,6-trimethyl-tetrahydropyran-2-yl acetic acid ester derivs. of formula (II) are new (where R₁ is 2-10C alkyl, 2-10C alkenyl, 2-10C alkynyl, 6-10C aryl or C₇-10 of aralkyl).

Continuous perfume-fragrance-giving of modifying agent contains (I) or (II). In an example ethyl 3-hydroxy 3,7-dimethyl-6-octenoate (21.4 g, 0.1 mols), p-toluenesulphonic acid (3 g) and benzene (100 g) were charged into reaction vessel and the mixt. reacted under reflux (81-83 deg.C) for ca. two hours. After completion of reaction, reaction prod. was poured into water, extracted with solvent, washed with alkali, washed with water, and dried and concentrated. Obtd. residue was subjected to distn. under reduced pressure to give pure ethyl 2,6,6-trimethyl tetrahydro -2-pyranyl acetate (20.3 g, b.pt. 83-85 deg.C, 3 mmHg, 95% yield). (13pp)



DYNN D23 05581 V/04 = J8 1040-144
Alkyl arylacetates prepn - for use in perfumes and as chemical inters

DYNAMIT NOBEL AG 17.08.72-DE-240399 (17.08.72-DE-240398)

E14 (18.09.81) *BE-803-647 C07c-67/36 C07c-69 + B01j-31/20

17.08.73 as 092332 (PW)

Process comprises reacting aromatic halomethyl cpds. with an alcohol and CO in the presence of (I) a catalyst system consisting of a Co cpd., a finely divided metal or an alloy, and a S cpd. or (II) metal carbonyl cpd., the reaction mixt. being maintained continuously weakly alkaline by addn. of a basic agent.

High yields of relatively pure ester are obtd. in a short reaction time. (J49108041) (4pp)

KIHK D23 76067 B/42 = J8 1040-199
Deodorising oils derived from marine animals - by contacting with purified fermentation soln. formed using Streptococcus lactis

KIIKAN CHO 23.02.78-JP-020707

(D16) (18.09.81) *J54114-507 C11b-03

23.02.78 as 020707 (15AS)

Streptococcus Lactis as the useful microorganism is cultured in a conventional nutrient culture medium contg. 3-5.5wt.% urea and the produced fermentation soln is filtered and purified so that it contains minimal carbon components and then, the fish oil is contacted with the purified fermentation soln.

Process affords a high quality of deodourised fish oil which is analogous to salad oil. (J54114507) (4pp)

Correction to Week D32

Abstract replaces original truncated version.

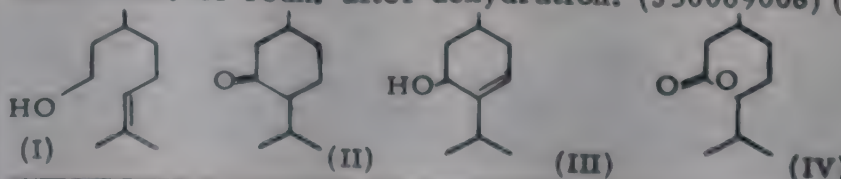
HASE D23 66334 W/40 = J8 1029-647
(-)-Citronellol prepn. - from (+)-1-methyl-4-isopropyl-3-cyclohexanone

HASEGAWA KORYO KK (HASE) 24.10.73-JP-118898

E17 (09.07.81) *J50069-008 +C07c-29 C07c-33/02

24.10.73 as 118898 (KB)

(-)-Citronellol (I) was prepd. by oxidn. of (+)-(II) (prepd. by redn. after oxidn. or oxidn. after redn. of (+)-(III)) with peracids to give (+)-(IV), followed by dehydration after redn., or by hydrolysis and subsequent dehydration after redn. or redn. after dehydration. (J50069008) (14pp)



AMGR-★ D23 77549 D/42 ★US 4291-458
Apparatus for automatically installing candle wicking - cleaning drilled bore with reciprocable heated element before inserting rigidified wick

AMERICAN GREETINGS 31.07.78-US-929671

(29.09.81) B29c-27/30

31.07.78 as 929671 (1358WB)

The appts. comprises a movable candle support, an axial bore former, a cleaner with a reciprocable heated member for cleaning out the formed bore and a feeder moving a rigidified wicking strand into the opening and with a cutter severing a set length.

The support is pref. carried by a horizontal table rotatably indexed to align the support with successive stations, and there is a unit for prewaxing the wicking. Station systems are pref. driven by air motors and the former is a drill movable to and from the body and cleaned as it is retracted. The appts. is compact and has high capacity. (13pp)

FARB D23 68932 X/37 = US 4292-210
Stable dichloro-cyclopropane derivs. - useful in perfume compns. and cosmetics, detergents etc (NL240876)

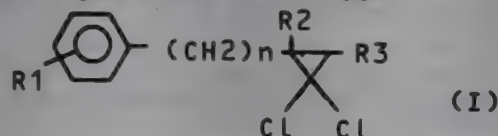
BAYER AG (HAAR) 22.02.75-DE-507778

E14 (D21 D25) (29.09.81) *DE2507-778 A61k-07/46

06.02.76 as 656059 (974MR)

Novel scented compns. comprise a perfume as carrier and 0.01-10 wt.% of at least one cpd. of formula (I). R1 is H, methyl, ethyl, propyl or (m)ethoxy. R2 and R3 are each H, (m)ethyl, or propyl and n is 0 or 1. (I) contains up to 12C atoms.

(I) is pref. 2,2-dichloro-1-methyl-1-phenylcyclopropane which has a sharp fresh rose leaf note, earthy, green, rose oxide, diphenylmethane, geranium scent. (6pp)



BADI D23 04077 D/04 = US 4292-244
2,4-Di:subst. pyran derivs. useful as perfumes - prepd. by acid-catalysed reaction of 3-methyl-3 butenol with subst. alpha, beta-unsatd. aldehyde

BASF AG 21.06.79-DE-925043

E13 (29.09.81) *EP--21-013 C07d-309/20

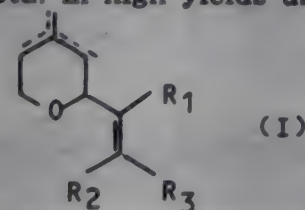
30.05.80 as 154900 (924PW)

New 2,4-disubst. pyran derivs. are of formula (I). In (I) R1 and R2 are each H or methyl; and R3 is CH2OH, CH2OCOCH3, CH2OCHO, CH2OCOC2H5, COOCH3, COOC2H5, COOC3H7, CH2Cl, CH2Br, CH2I or CHO. The broken lines show the opt.

presence of double bonds.

The cpds. are obtd. by reaction of 3-methyl-but-3en-1-ol with an appropriately subst. unsatd. aldehyde in the presence of an acid catalyst. The prods. possess organoleptic properties and are useful as additives for foodstuffs and tobacco. They have fragrance notes similar to those of natural prods., typically rose-like germanium-like and mushroom-like notes.

The cpds. are obtd. in high yields using a simple economic process. (4pp)



INFL D28 46644 C/27 = US 4292-447
Organoleptic butenoyl and butanoyl cyclohexane and cyclohexene cpds. - prepd. by catalytic hydrogenation of corresp. further unsatd. cpds.

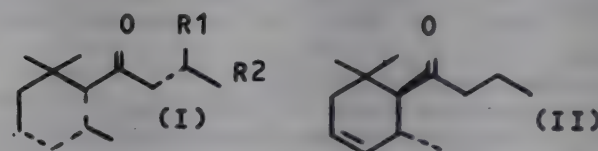
INT FLAVORS & FRAGR INC 15.12.78-US-969852

E15 (D13 D18) (29.09.81) *EP--12-436 C07c-49/30 C11b-09

15.12.78 as 969852 (945PW)

Butenoyl and butanoyl cyclohexane and cyclohexene cpds. of formula (I) are described. In the cyclohexyl ring 2 of the dashed lines are single bonds and the other is a single or double bond. The dashed line in the side chain is a single or double bond. One of R1 and R2 is methyl and the other is H.

The claims specify 3 mixts. and also cpd. (II) is claimed per se. The cpds. are useful as flavour and fragrance enhancers in foodstuffs, perfumed materials, perfume compns. tobacco etc. (40pp)



See Also

D12 EP 37086

D13 GB 2073232

D18 EP 37163

D24: SOAP; SOAP DETERGENTS

BUHL ★ D24 76046 D/42 ★EP--36-985
Mixer for solids and liquids - with revolving salve-producing homogeniser tool at end of mixing screw

BUHLER GEBR AG 21.03.80-CH-002230

(07.10.81) B01f-05/06 C11d-13/18

13.03.81 as 101886 (39HM) (G) US2640033 FR-720439 FR-913483 FR1085648 FR2277877 DS-618003 E(DE GB IT NL)

Mixing appliance for at least a crushable solid and at least a liq. specially for use in upgrading (scenting) operations for soap, has the outlet opening of the feeding device for the liq. components arranged close to the admission of the solids to the vertical mixing screw. The output device is designed to homogenise the mixt. and includes at least one stage in which the perforated exit disc is preceded by a revolving salve-producing tool with radial wings.

The soap granules (26) drop from the metering screw (7) into the mixing screw (12). The feed tube (17) terminates with its outlet (18) close to the transfer point and adds the dispersion. This can be observed by the sight hole (45). The homogenising tool (20) at the outlet end of the mixing screw consists of a revolving salve-producing tool (28) with three radial wings, a stationary perforated disc (30), and a cutter (31) with blades, offset relative to the wings. (26pp)

GENO ★ D24 76138 D/42 ★EP--37-204
Dry curcumin colourant stabilised to storage in alkaline mixts. - comprises curcumin, acid, encapsulant, and opt. buffer and dispersant

GENERAL FOODS CORP 27.03.80-US-134610

(07.10.81) A23l-01/27

17.03.81 as 301119 (955HM) (E) US2982656 US4138212 DS1173780 GB1049539 E(AT BE CH DE FR GB IT LI LU NL SE)

Dry stabilised curcumin colourant comprises curcumin and sufficient of an acid to keep the pH of the mixt. below 6. Pref. the particles contg. the curcumin and acid are encapsulated by a film-forming material. A buffer and/or a dispersant may also be present.

The curcumin can be in the form of ground turmeric, turmeric oleoresin, or the pure synthetic cpd. Suitable acids are e.g. citric, ascorbic, malic, adipic or phosphoric acids. Examples of buffers are sodium citrate, tartrate or phosphate. The film-forming material typically forms 65-85% of the compsn. and is a protein, gum, cellulose deriv., starch or sugar deriv. e.g. guar gum, alginate, CMC, dextrans, gelatin, pectin, sucrose etc. The emulsifiers are polyglycerol fatty acid esters, sorbitan derivs., lecithin etc. The compsn. is formed by drying, esp. spray-drying an aq. mixt. of the components.

The colourant is stable for long periods in dry mixes, even those having a high pH, which normally makes curcumin unstable. (17pp)

D25: OTHER DETERGENTS

FARF ★ D25 75837 D/42 ★DD-149-878
Washing, cleansing and disinfectant compsns. - contg. microbicidal, peroxide-activating 2,4 dioxo-hexa: hydro-1,3,5-triazine active in alkaline media at moderate temps.

VEB CHEMIEKOMBITT 26.03.80-DD-219924

E13 (22.07.81) C11d-03/28

26.03.80 as 219924 (200)

Alkaline detergent, cleansing and disinfectant compsns used at 20-90 (30-70) deg C contain 0.3-20 (0.5-10) wt % 2,4-dioxohexahydro-1,3,5-triazine, (I), added as microbicide and as activator for any peroxide cpd present.

The compsns can be used in household, communal establishments or industry.

(I) has fungicidal and bactericidal activity; causes neither skin nor mucous membrane irritation, allergies nor mutations, does not damage fibres/fabrics; is non-toxic to fish and animal fish-food and is non-corrosive. (16pp)

UNIL D25 27788 C/16 =EP G009-052
Particulate alkaline detergent contg. tri:poly:phosphate - added to spray-dried powder of other components, giving reduced deposition in washing machines

UNILEVER PLC 03.10.78-GB-039074

A97 E34 (07.10.81) *EP---9-952 C11d-03/06 C11d-11/02

01.10.79 as 302057 (974RP) (E) DE2605052 DE2637890 DE2816770 US4115307 E(AT BE CH DE FR GB IT NL SE)

Particulate alkaline detergent compsns. contain at least 5 wt.% synthetic detergent active cpd(s), at least 5 wt.% alkali metal tripolyphosphate and at least 2 wt.% alkali metal orthophosphate and have a total of 10-40 wt.% tripolyphosphate and orthophosphate. They are prepd. by (i) spray drying a detergent base powder contg. some or all of the detergent active cpd(s) and some or all of the alkali metal orthophosphate; (ii) admixing at least 2.5 wt.% of the alkali metal tripolyphosphate in particulate form with the spray dried base powder and (iii) spray drying any remaining alkali metal tripolyphosphate in the base powder.

Pref. the tripolyphosphate is Na tripolyphosphate and pref. at least half of it is admixed with the spray dried base powder. (9pp)

HENK D25 73993 D/41 =EP --37-018
Very fine crystalline sodium aluminosilicate zeolite prodn. - with low grit fraction, by continuous pptn. and discontinuous crystallisation

HENKEL KG AUF AKTIEN (DEGS) 27.03.80-DE-011834

E33 (07.10.81) *DE3011-834 C01b-33/28

19.03.81 as 102056 (16TM) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of aq. alkaline suspension of very finely divided crystalline zeolitic Na aluminosilicate (I), low in grit, of the compsn. 0.8-1.3 Na₂O : 1 Al₂O₃ : 1.8-2 SiO₂, with a water content depending on the degree of drying, min. 99.95 wt.% particles under 50 microns in size and with a high cation exchange capacity is described. Process involves (a) continuous mixing of aq. Na aluminate soln. (II) with aq. Na silicate soln. (III) in the presence of excess NaOH soln. at elevated temp. and then (b) discontinuous crystallisation of the aq. alkaline suspension of X-ray amorphous Na aluminosilicate (IV) formed, which overall has the compsn. 3.6-5 Na₂O : 1 Al₂O₃ : 1.8-2 SiO₂ ; 70-105 H₂O, also at elevated temp.

Improvement is that both reagents in stage (a) are mixed at max. 50 (40-50) deg.C. Finely distributed steam is forced into (IV) for min. 15 (20-30) min., with stirring, so that it is heated to 85-95 (90-93) deg.C, it is kept at this crystallisation temp. for 20-60 (30-40) min. and at the same time, it is stirred with a multistage, high-shear stirrer with a peripheral speed of 5-10 (6-8) m/s.

A zeolite NaA with a grit fraction of under 0.05 wt.% is obtd. It is useful as builder in detergents. (19pp)

HENK ★ D25 76064 D/42 ★EP --37-026
Storage-stable, soluble evenly coated bleach activator granulate - prepd. by mixing with powdery granulating auxiliary, wetting and granulating

HENKEL KG AUF AKTIEN 28.03.80-DE-011998

A97 E19 (07.10.81) C11d-03/39 C11d-17 D061-03/02

20.03.81 as 102083 (200BZ) (G) DE2048331 DS1162967 E(AT BE CH DE FR GB IT LI LU NL SE)

Storage-stable granulate contg. by wt. w.r.t. anhydrous components, 90-98% bleach-activator, consisting of an N-acylated amine, amide, diketo-piperazine or glycoluril, and 10-2% granulating auxiliary, is prepd. in several steps. In a 1st mixing step, the powdered bleach activator, having average grain size 0.01-0.8 mm, is mixed with 60-100 (pref. 80-95)% of total granulating auxiliary, consisting of a water-soluble cellulose

having average grain size 0.01-0.8 mm. In a 2nd mixing step, the mixt. is wetted with water or an aq. soln. contg. granulating auxiliary balance in a 0.1-10 (0.5-5) wt.% soln., and granulated. Water is then extd. from the wet granulate, pref. contg. 10-35 (15-25)% water, to reduce water content to less than 2 (less than 1) wt.%.

The granulates can be used in detergent-, bleaching-, oxidising-, and disinfectant compsns. and retain their properties. The activator particles are completely coated dissolve easily, do not agglomerate and have a favourable grain distribution. (21pp)

UNIL ★ D25 76109 D/42 ★EP --37-146
Solid detergent bleach compsn. effective at all washing temps - contains organic peroxy acid, inorganic peroxy cpd. and stabilising sequestering agent

UNILEVER NV 16.06.80-GB-019605 (27.03.80-GB-010318)

E19 (E37) (07.10.81) C11d-03/39 D061-03/02

24.03.81 as 200323 (1251AS) (E) DE2207979 GB1355855 US4013581 DE2948923 GB1387167 GB1456591 GB1269677 FR2332322 DE2536618 E(BE CH DE FR IT LI NL SE AT)

Solid detergent bleach compsn. contains a detergent (I); solid organic peroxyacid (II); inorganic peroxy cpd. (III) forming-H₂O₂ in soln., and a stabilising sequestering agent (IV). Pref. (I) is 3-40 (10-35)%; (II) is 1-25 (2-10)% (III) is 2-40 (5-30)% and (IV) is 0.05-5 (0.1-2)% all by wt.

Pref. (II) has m.pt. at least 50 deg.C and is esp. di-peroxyazelaic acid (II'), monoperoxyphthalic acid or diperoxyisophthalic acid. A pref. (IV) has formula (Q)2N.CH₂CH₂. (NQ.CH₂CH₂)n.N(Q)2 (n is 0-4; Q is CH₂PO₃X₂; X is H, alkali(ne earth) metal or ammonium cation).

Cempsns. provide an improved bleaching effect at all washing temps. and do not involve the in situ generation of peroxyacids. (19pp)

INTE- ★ D25 76131 D/42 ★EP --37-184
Stable liq. detergent compsn. contg. hydrogen peroxide - and opt. complexing builder, with mixt. of alcohol and phosphonate as stabiliser

INTEROX CHEM LTD 01.04.80-GB-010887 (01.04.80-GB-010885)

E19 (07.10.81) C11d-03/39 C11d-17

09.03.81 as 300964 (1251BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Stabilised, aq. built liq. detergent comprises (by wt.) (a) at least 4% anionic sulphate or sulphonate detergent (I) and/or nonionic ethoxylate detergent (II); (b) at least 5% alkali metal polyphosphate or carboxylic complexing builder (III); (c) at least 2(5-15)% H₂O₂; (d) enough (pref. 3-9%) alkali metal arylsulphonate hydrotrope (IV) to maintain a single liq. phase (opt. together with other components); and (e) as stabiliser a mixt. of lower monohydric alkanol and/or polyhydroxy aliphatic carboxylate with an aminomethylene phosphonate or hydroxyalkyl diphosphonate.

Pref. (I) and (II) are each 3-15% for a total of 6-15% partic. with wt. ratio (I):(II) of 5:2-2:5. The builder is esp. 9-16 wt.% tetra K pyrophosphate or alkali citrate, and total of all components other than water and H₂O₂ is 30-45%. Also new are similar unbuild detergents, contg. at least 10% (a) of which at least 5% is (II).

The compsns. are useful, when diluted, as laundry cleaners and also for cleaning hard surfaces. They are stable enough not to require special ventilated containers but their washing performance is equal to that of unstabilised compsns. (45pp)

UNIL D25 82553 A/46 = GB 1600-018
Isotropic aq. liq. compsn. for washing textiles - contains mixt. of sodium soap(s), synthetic organic detergent(s) and buffer

UNILEVER NV 15.07.77-GB-029729 (06.05.77-GB-019119)

E12 (14.10.81) *DE2819-455 C11d-10/04 + C11d-03/30

04.05.78 as ----- (982TM)

An aq. liq. detergent compsn. comprises (a) at least 10 (20-35) wt.% of the total compsn. of one or more Na soaps of 8-24C opt. branched, satd. or unsatd. fatty acids; (b) at least 1 (9-30) wt.% of the total compsn. of one or more organic synthetic detergents, the wt. ratio of Cal to (b) being 10:1 to 1:1 (3:1 to 1:1); and (c) at least 0.1 wt.% of the total compsn. of an alkanolamine which buffers the wash liquor to a pH of 7-11.

Pref. the Na soaps is Na oleate and/or a Na soap of coconut fatty acids. The buffering agent is triethanolamine or monoisopropanolamine. Compsn. is suitable for fabric washing esp. of polyester/cotton mixed fabrics, and have good rinsing properties. (10pp)

NTE- D25 72728 A/41 = GB 1600-106
 super-oxidised sodium perborate mfr. in fluid bed - giving high active oxygen ratio and good storage stability
INTEROX 08.04.77-LU-077095
E34 (14.10.81) *BE-865-651 C01b-15/12
 07.04.78 as 013702 (974AS)
 Novel superoxidised solid Na perborate contains more than 17 wt.% active O and less than 1.4 H atoms per active O atom. Pref. the active O is at 17-32 wt.% and the active H at least 0.7 per O, esp. 17-28% and 0.9-1.3 resp. Prods. are used as bleaching agents. (12pp)

NTE- D25 72729 A/41 = GB 1600-107
 Mono-hydrated sodium perborate granules - contain surfactant, added during mfr. to increase rate of dissolution in water
INTEROX 08.04.77-LU-077094
E34 (14.10.81) *BE-865-652 C01b-15/12
 07.04.78 as 013703 Add to 1570615 (974TM)
 Granular, abrasion resistant Na perborate monohydrate (I), as in GB1570615, is prep'd. by (i) fluidising a bed contg. seed particles with an updraft of a fluidising bed and (ii) introducing simultaneously H₂O₂ in aq. soln. and Na metaborate in aq. soln. into the bed so that the fluidising gas evaporates water from the solns., enabling a deposit of (I) to be formed on the seeds.
 At least one surfactant in aq. soln. is also introduced into the fluidised bed, thus enabling the surfactant to be deposited on the seeds together with (I) and produce granules through which the surfactant is distributed. (3pp)

ARRO- ★ D25 76375 D/42 ★ GB 2073-233
 Cleaning compsn. for sanitary installations - contg. acid or acid salt and surface active agent
ARROW CHEM LTD 04.03.81-GB-006863 (03.04.80-GB-011222)
E36 (E19) (14.10.81) C11d-03/02
 04.03.81 as 106863 (478AS)
 Cleaning compsn. for sanitary installations contains an acid (I) (or acid salt) and a surface active agent (II). The compsn. has a reaction rate with CaCO₃ of at least 5% wt. loss (i.e. at least 5% marble dissolved by the compsn. over 20 min.), and a corrosion rate of less than 0.01mm/year (of stainless steel using a thickness loss method).

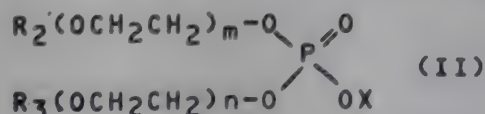
Compsn. is pref. an aq. soln. of pH 1-4 and viscosity 80-340 centipoises, and is clear in the range 5-40 deg.C. Pref. compsns. have reaction rate with CaCO₃ at least 10% esp. at least 12% wt. loss. Compsns. contain up to (by wt.) 50% pref. 4-40% esp. 5-25% (I); and up to 10% pref. 4-8% esp. 4.5-6.5% (II). Pref. (I) are H₃PO₄ (amt. pref. 4-40% by wt.) and/or NH₂SO₃H (amt. pref. up to 10% by wt.).

Compsns. are not significantly corrosive to stainless steel but are partic. effective in cleaning and removing scale from sanitary installations (lavatory bowls, etc.). (3pp)

KAOS ★ D25 76564 D/42 ★ J5 6110-799
 Cream-form detergent compsn. - contg. phosphoric ester, (in)organic salt, polyethylene glycol and nonionic surfactant
KAOSOAP KK 05.02.80-JP-012623
A98 (02.09.81) C11d-01/34 C11d-03/04
 05.02.80 as 012623 (126AS)
 Compsn. contains (A) 10-60 wt.% phosphoric ester surface active agent(s) of formula

$$R_1(OCH_2CH_2)_1-O-P(O)(OY)-OX \text{ (I)}$$
 or (II) (where R₁₋₃ are each 8-18C opt. satd. hydrocarbyl; X and Y are each H, alkali metal, ammonium, or 2-3C alkanolamine; and l, m and n are each 0-10); (B) 0.5-15 wt.% (in)organic salt; (C) 0.5-15 wt.% polyethylene glycol having mol. wt 4000-10000; and (D) 0.1-15 wt.% nonionic surface active agent which is at least 50 mole ethylene oxide adduct.

Pref. (A) is a phosphoric ester nonionic surface active agent consisting of (I) and (II) in 100:0-50:50 proportion by wt. Pref. (B) is an (in)organic salt of alkali metal or ammonium. Detergent has a mild effect on the hairs and skin. Prod. has good long term stability. (8pp)



AJIN ★ D25 76861 D/42 ★ J5 6112-998
 Non-irritant transparent solid detergent - obtd. by moulding mixt. of N-acyl acidic aminoacid neutralised with alkali metal and basic aminoacid
AJINOMOTO KK(KAWA-) 13.02.80-JP-015556
E19 (05.09.81) C11d-01/10
 13.02.80 as 015556 (126KB)
 A transparent solid detergent is obtd. by moulding a mixt. of a salt mixt. of N-long chain acyl acidic aminoacids neutralised with 1.0-1.2 equiv. alkali metal and at least 0.3 equiv. basic aminoacid

to at least 1.3 equiv. degree of neutralisation.

Pref. acidic aminoacid is aspartic acid, glutamic acid, cysteic acid, or homocysteic acid. Basic materials used for the neutralisation are alkali metals (e.g. Na), alkaline earth metals (e.g. Ca); basic aminoacid (e.g. lysine, ornithine, arginine, etc.). Additives for increasing the transparency are lower alcohol (e.g. ethanol,) glycerine, ethylene glycol, etc.). In the prepn. of a milled soap, an appropriate amt. of the additive (d); 25-40 wt.% water based on the total amt. of the soap to be prep'd. is added. The mixt. is milled in a roll or a pelletiser to obtain a transparent sheet or pellets. The prod. is extruded conventionally and then stamped.

The transparent solid detergent has a mild effect to the skin and soft and wet feeling is provided when it is used. Its frothing effect and detergency in hard water are improved. (4pp)

KAOS ★ D25 76862 D/42 ★ J5 6112-999
 Detergent compsn. with good foaming properties - contains alkyl ether sulphate, tert- amine oxide and fatty acid alkanol:amide

KAOSOAP KK 08.02.80-JP-014441

A97 E19 (05.09.81) C11d-01/83

08.02.80 as 014441 (126KB)

A detergent compsn. contains (a) 10-30 wt.% alkylether sulphate of formula R₁₀.(CH₂CH₂O)_n.SO₃H (I) (where R₁ is 10-18C opt. branched alkyl; n is 2-6 in average; M is alkali metal, ammonium, or alkanolamine); (b) 0.5-5 wt.% tert. amine oxide of formula R₂R₃R₄N.O (II) (where R₂ is 10-18C alkyl, at least 50% being 14C alkyl; R₃ and R₄ are methyl and ethyl); (c) 4-10 wt.% higher fatty acid alkanolamide of formula R₅.CONR₆.CH₂CH₂OH (III) (where R₅ is 9-17C (un)satd. fatty-acid residue; R₆ is H or hydroxyethyl gp); (d) 1-5 wt.% sec. alcohol ethoxylate of formula (IV) (where m is 1-14; l is 1-14; m + l is 8-15; p is 2-10 in average, of which p is 0 is less than 4 wt.%).

The detergent compsn. has good foaming characteristics. (6pp)



LIOY ★ D25 76863 D/42 ★ J5 6113-000
 Liq. detergent compsn. - contg. alpha olefin sulphononic acid salt, tert. amine oxide and sulpho-betaine

LION CORP 12.02.80-JP-015713

E19 (05.09.81) C11d-01/94

12.02.80 as 015713 (126AS)

Liq. detergent compsn. contains three components (A), (B) and (C) in which the weight ratio (A):(B):(C) is enclosed in an area by a quadrilateral abcd in a triangle diagram ABC having vertexes at A, B and C, and the coordinates of points a, b, c and d are a: (A): 50; (B): 10; (C): 40; b: (A): 35; (B): 5; (C): 60; c: (A): 28; (B): 13; (C): 60; and d: (A): 33; (B): 17; (C): 50.

Proviso is that the sum of three components is 5-40 wt.% of the weight of the composition, and the pH of the compsn. is 4-7. A is a salt of 12-18C alpha-olefinsulphonic acid; B is a tertiary amine oxide of formula R₁R₂R₃NO (where R₁ is 10-14C alkyl; R₂ and R₃ are 1-3C alkyl or hydroxyalkyl), and C is a sulphobetaine of formula R₄R₅R₆N-CH₂-CHX-CH₂-SO₃M, (where R₄ is 6-18C alkyl; R₅ and R₆ are 1-3C alkyl or hydroxyalkyl; and M is a cation which forms a water-soluble salt).

A liquid detergent compsn. for the body having a mild effect on the skin is provided. It is weakly acidic and stable at low temp. (i.e. no clouding is generated when it is stored at low temp.). (7pp)

ETHY D25 09013 W/05 = US RE30-755
 High purity alkali-metal salts of carboxyalkoxy succinates prepn. - useful as non-hygroscopic detergent builders

ETHYL CORP 20.10.71-US-191124 (10.03.80-US-128830)

E12 (29.09.81) *US3862-219 C07c-59/22

10.03.80 as 128830 Reissue of 3862219 (931TM)

A high purity alkali metal carboxyalkoxy succinate is produced from a Zn or alkaline earth metal carboxyalkoxy succinate contaminated with Zn or alkaline earth metal salt of maleic acid, fumaric acid and/or a hydroxy organic acid.

The process comprises selectively reacting the Zn or alkaline earth metal carboxyalkoxy succinate with a stoichiometric deficiency ratio of alkali metal carbonate for complete reaction of all the Zn and alkaline earth metal salt present, and forming a soln. of alkali metal carboxyalkoxy succinate contg. the corresp. carbonate.

The soluble prod. is recovered in soln. from the Zn or alkaline earth metal salt residue of the acid remaining after the selective reaction. (4pp)

PROC ★ D25 77608 D/42 ★ US 4292-035
Solid fabric softening compsn. - contg. anionic surfactant, and complex of smectite clay and amine or quat. salt (J5 29.8.80)

PROCTER & GAMBLE CO 20.11.78-US-962452 (13.11.78-US-960147)

A97 + P43 (29.09.81) B08b-03 C11d-01/18

20.11.78 as 962452 (478BZ)

Solid fabric softening compsns. contain (by wt.): (a) 10-80% of an impalpable smectite clay (I) (ion exchange capacity at least 50 meq/100g); (b) 1-50% (of (I)) of an organic prim., sec., or tert.-amine (II) (or water-soluble or water-dispersible salts) or quat. salt (III) (NH₄, phosphonium, or sulphonium salt); and (c) an anionic surfactant (IV) (amt. at least 30% mol. equiv. to (II) or (III)). In the compsn., (I) and (II) or (III) are combined to form a complex before (IV) is added. (II) and (III) have at least one 8-22C hydrocarbon grp.

) The compsn. is esp. useful in home laundering operations. In addn., when incorporated in detergent compsns., the compsns. above provide improved grease/oily soil removal from fabrics (esp. polyesters). (14pp)

COLG ★ D25 77684 D/42 ★ US 4292-191
Activated solid bleaching compsns. - contg. per:oxygen bleaching cpd., and aromatic sulphonyl halide as activator

COLGATE PALMOLIVE CO 31.07.78-US-929845 (05.11.75-US-629117)

E14 (29.09.81) C11d-07/54

31.07.78 as 929845 C.i.p. 4107065 (478HM)

Activated particulate solid bleaching compsn. consists of a peroxy bleaching cpd. (I) together with a (1-20C) alkoxy substd. aromatic sulphonyl halide (II) as activator. This is a c.i.p. of US 4107065.

(I) is pref. an alkali metal salt of an inorganic per-acid, esp. Na percarbonate, but is esp. Na perborate 4H₂O. (II) is pref. of formula ArSO₂X where X is F pref. Br esp. Cl, and Ar is (1-20C) alkoxy-substd. aryl, pref. p.substd., esp. p-MeOC₆H₄. Wt. ratio active O₂ (from (I)):(II) is 1:20-1, pref. 1:3-10, esp. 1:7.

Cpds. (II) are stable, readily available and inexpensive and are esp. useful for activating (I) in low temp. aq. media. In addn., (II) do not damage the colours of dyed fabrics. In use (II) are also converted into surfactants. (13pp)

UNIL D25 14001 A/08 = US 4292-192
Toilet soap contg. opt. acetylated citric acid ester(s) - employed for its deodorising effect

LEVER BROTHERS CO 20.08.76-GB-034788

E17 (29.09.81) *BE-857-834 A61k-07/32 C11d-09/26 + C11d-17

13.06.80 as 159320 (+ 19.8.77, 13.2.78-US-826079, 877534) (974MR)

Novel detergent bars comprise (i) 0.3-3 wt.% of an opt. acetylated ester of citric acid (I); (ii) from 5 wt.% water and (iii) up to 94.7 wt.% of detergent active material and other components of detergent bars.

R₁, R₂ and R₃ are each H or 1-4C alkyl but not all H. R₄ is OH or CH₃COO-. Pref. (I) is a triester. Pref. R₁, R₂ and R₃ are each H, ethyl or butyl.

(I) improve the deodorancy of the bar. (8pp)

CH₂.COOR₁

CR₄.COOR₂

(I)

CH₂.COOR₃

GRAC ★ D25 77777 D/42 ★ US 4292-412
Hydrophilic fabric softener urethane foam forming compsn. - comprises isocyanate-capped poly:ol prepolymer, water, polyether poly:ol release agent, fabric softener and opt. crosslinker (J5 25.8.81)

GRACE W R CO 16.01.80-US-112575

A97 (A25) (29.09.81) C08g-18/14

16.01.80 as 112575 (960MR)

A fabric softener-contg. urethane foam-forming compsn. comprises (a) water; (b) a prepolymer comprising NCO-capped polyol(s) of functionality at least 2, the polyol having an ethylene oxide content of at least 40 wt.% before capping; (c) when the functionality of (b) is 2, a crosslinker contg. at least 3 functional gps.; (d) a hydrophilic polyether polyol release agent; and (e) a fabric softener. The wt. ratio of (a):(b) is 0.3-2.0:1. The compsn. esp. comprises 50-200 (wt.) pts. (a), 100 pts. (b), 10-200 pts. (d) and 10-200 pts. (e).

The hydrophilic foam formed has (d) and (e) uniformly dispersed through it and has improved fabric softening and static electricity elimination. In use, the foam is compressed and on contact with water, expands and gradually releases (e) so that it can be added at the beginning of the washing cycle as well as at the beginning of subsequent rinsing. Use of the large excess of (a) enables optional use of a polymerisation catalyst or promoter.

(d) is pref. a polyethylene glycol of mol. wt. 100-20000, esp. 600-2000. (10pp)

See Also

D15 DS 2860812

D22 EP 37224

D23 US 4292210

- ABBO 21.12.77 ABBOTT LABORATORIES B03 D22 E13 = CA 1109-071
2-Deoxy-fortimicin B and its precursors - 47152B/26
- ACUM- 15.12.76 ACUMETER LAB INC A81 D18 = CH -625-547
Cut filter tips for cigarettes, prodn. - 02171A/02
- AGEN 25.02.78 AGENCY OF IND SCI TECH D15 E36 = J8 1039-953
Arsenic removal from hot subterranean water - 75998B/42
- AGEN 12.01.80 AGENCY OF IND SCI B05 D16 (B03) = J5 6113-718
Terpenoid(s) having antiulcer activity - 36369D/21
- *AGEN 12.01.80 AGENCY OF IND SCI TECH B05 D16 E19 *J5 6113-721
Bi: functional terpenoid(s) prepn. by oxidn. - 76981D/42
- *AGEN 07.02.80 AGENCY OF IND SCI TECH B05 D16 E17 *J5 6113-294
Microbial prepn. of pristanol - 76885D/42
- *AGRI= 06.04.79 AGRIC ELECTRIF REG C03 D14 X25 *SU -799-704
Treating liquids in flowing thin layer with IR, UV radiation - 77458D/42
- *AGRI= 30.07.79 AGRIC MACH CONS INST D15 *SU -793-443
Liquid manure dewatering equipment - 77154D/42
- AHSC 04.06.79 AMER HOSPITAL SUPPL CORP A96 B04 D16 S03 = DK 8100-449
Substrates for turbidimetric lipase assay - 01965D/02
- AIRP 26.10.79 AIR PRODUCTS & CHEM INC D15 = J5 6111-090
Reabsorption and retention of phosphorus by biomass - 27084D/15
- AJIN 08.02.80 AJINOMOTO KK B05 D13 E19 = J5 6110-617
Nutrient compsn. contg. eighteen aminoacid(s) - 62644D/35
- AJIN 13.02.80 AJINOMOTO KK D21 E16 (D25) = J5 6112-997
Transparent detergent bars - 90464C/51
- AJIN 13.02.80 AJINOMOTO KK D21 E16 (D25) = J5 6112-997
Transparent detergent bars - 90464C/51
- *AJIN 13.02.80 AJINOMOTO KK D25 E19 *J5 6112-998
Non-irritant transparent solid detergent - 76861D/42
- *AJIN 14.02.80 AJINOMOTO KK D16 E13 *J5 6113-297
D-Ribose prodn. by aerobic fermentation - 76886D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-308
Rotary drum liq. filter - 76894D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-309
Rotary drum type liq. filter - 76895D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-310
Rotary drum liq. filter for waste water - 76896D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-311
Rotary drum filter for waste water - 76897D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-312
Rotary drum liq. filter for draining sludge - 76898D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-313
Liq. filter consists of two rotary horizontal drums in series - 76899D/42
- *AKAE- 14.02.80 AKAE KIKAI KOGYO KK D15 *J5 6113-314
Appts. for sepg. waste water into clean water and solids - 76900D/42
- *ALAB/ 09.04.79 ALABUSHIN A N D15 *SU -799-780
Removal of suspended particles from water - 77477D/42
- ALBR 05.11.75 BUSH BOAKE ALLEN D22 E15 = CA 1109-078
Air freshener compsn. - 32763Y/19
- *ALFA 07.03.80 ALFA-LAVAL AB D13 *FR 2477-664
Valve to connect milking machine to milk manifold - 76264D/42
- *ALIF- 02.04.80 ALIFET AG C03 D13 *EP --37-376
Feeding large amts. of fat to animals - 76207D/42
- *ALKU 24.08.78 AKZONA INC B04 D16 S03 (S05) *US 4292-403
Determin. of antigen specific immunoglobulins - 77775D/42
- ALKU 28.12.79 AKZO NV D17 = DK 8005-523
Regenerating sorbents with aq. alkaline soln. contg. sugar - 55414D/31
- ALKU 11.01.80 AKZO NV B04 D16 S03 = DK 8100-046
Qualitative and quantitative immunoassays - 55418D/31
- AMCE 31.08.72 AMCHEM PROD INC D15 J01 = J8 1039-956
Removal of chromium and ferricyanide from aqs. effluents - 23254V/13
- *AMCO- 14.08.78 AMCO STANDARDS INT A89 D15 S03 *US 4291-980
Aq. suspension of styrene-di:vinylbenzene copolymer - 77598D/42
- *AMGR- 31.07.78 AMERICAN GREETINGS D23 *US 4291-458
Apparatus for automatically installing candle wicking - 77549D/42
- *AMLC= 19.03.79 AS MOLD CHEM INST D16 *SU -798-169
Low acidity wine stock clarification - 77303D/42
- *ANDE/ 11.01.80 ANDERSEN H O D13 *DK 8000-123
Cheese refining appts. - D/42
- *ANTU- 24.04.78 ANTUNES A J & CO D14 *US 4291-617
Pressure injection steamer for heating food items - 77559D/42
- *APPL= 20.11.78 APPLIED ENZYMOLOGY D16 *SU -798-109
Sorbent for sepn. and purificn. of serine proteinase - 77248D/42
- *ARRO- 03.04.80 ARROW CHEM LTD D25 E36 (E19) *GB 2073-233
Cleaning compsn. for sanitary installations - 76375D/42
- ARSE- 31.01.79 ARSENE VALERE A92 B05 C03 D21 = BE -888-783
Pyrethrin-type insecticidal lotion - 83125C/47
- *ASAE 06.02.80 ASAHI DENKA KOGYO D23 *J5 6110-798
Thixotropic, heat-resistant fat compsn. - 76563D/42
- ASAH 24.11.78 ASAHI KASEI KOGYO K B04 D16 = DS 2946-898
Plasminogen activator prodn. by cell culture - 41752C/24
- *ASBI= 01.03.79 AS USSR BIOCHEM INS B04 D16 *SU -798-173
Alpha-galactosidase microbiological prodn. - 77307D/42
- *ASBI= 26.03.79 AS USSR BIOCHEM INS D16 *SU -798-170
Raw brandy spirit maturing accelerator - 77304D/42
- *AUHE= 04.12.78 AS UKR HEAT PHYS IN D13 *SU -793-551
Apparatus for concentrating milk products - 77156D/42
- *AZOV= 25.04.79 AZOV BLACK SEA FISH D12 *SU -799-700
Brine-maker for fish industry - 77455D/42
- *AZUC- 12.11.79 AZUCARERA ARGENTINA C03 D16 (D13) *GB 2073-244
Prepn. or Torula of Candida utilis suspensions - 76380D/42
- BAAD/ 08.02.77 BAADER W D15 = GB 1600-429
Treatment of animal excrement by forming cakes - 58989A/33
- BADI 12.02.75 BASF AG B05 D13 E15 (E24) = CH -625-212
Symmetrical carotenoids prepn. - 65017X/35
- BADI 27.12.75 BASF AG D23 E15 = CH -625-494
Substd. (1)-alkenyl-cyclohexenes - 48965Y/28
- BADI 09.08.77 BASF AG D16 E19 F06 (E37) = CH -621-904
Peroxide bleaching of textile material contg. cellulose - 09987B/06
- BADI 21.06.79 BASF AG D23 E13 = US 4292-244
2,4-Di:substd. pyran derivs. useful as perfumes - 04077D/04
- BAKP 19.02.80 BAKER PERKINS HOLDI D11 = NL 8100-796
Travelling baking oven - 62820D/35
- BALS/ 16.05.79 BALSSE C C03 D13 (C04) = DK 8100-161
Agglomeration of materials with animal blood - 90114C/50
- BALS/ 16.05.79 BALSSE C C03 D13 (C04) = DK 8100-162
Agglomeration of materials with animal blood - 90114C/50
- *BAND/ 02.10.78 BANDURINA T A D15 E11 *SU -798-106
Di:amino carboxy-butylidene di:phosphonic acid - 77245D/42
- *BARE/ 30.09.80 BARELS R R D21 *US 4292-304
Encapsulated oil-based dentifrice - 77739D/42
- BARR/ 13.07.79 BARR A D21 = US 4292-028
Slow release breath freshening compsn. - 06228D/05
- BATT 04.10.78 BATTELLE MEMORIAL I D17 F09 = CH -625-251
Continuous decomposition of wood residues - 29657C/17
- BATT 04.10.78 BATTELLE MEMORIAL I D17 F09 = US 4292-089
Continuous decomposition of wood residues - 29657C/17
- *BAXT 13.03.78 BAXTER TRAVENOL LABS INC D22 *US 4292-405
Sterility testing of liq. flowing by gravity - 77776D/42
- *BBOE- 21.02.80 DE ERVEN DE BOER G D16 *NL 8001-072
Two/stage anaerobic fermentation of liq. manure etc. - 77111D/42
- BEAF 14.11.77 BEATRICE FOODS CO D13 = CA 1108-922
Creamy confectionery contg. dried yoghurt powder - 35183B/18
- BEAF 18.06.79 BEATRICE FOODS CO D12 = DK 8100-710
Puffable fried snack food prodn. - 01985D/02
- *BEAF 18.07.79 BEATRICE FOODS CO D16 *US 4292-330
Prepn. of leavened dough mixts. - 77750D/42
- BEGO- 11.02.77 BEGO BREMER GOLDSCH D21 = CH -625-411
Artificial tooth enamelling preparation unit - 60630A/34
- BELL/ 24.12.76 BELLOCQ J P D16 = CH -625-270
Revolving wine press - 50007A/28
- BENC 18.08.77 BENCKISER-KNAPSACK D15 E11 F06 M14 (D25 F09) = DS 2860-812
Amino-alkane-carboxylic-di:phosphonic acid prodn. - 18188B/10
- *BERA/ 10.12.80 BERANEK J B03 D16 (B02) *CS 8008-659
Nucleoside(s) prepn. by nucleosidase reaction - D/42
- BEWA- 31.12.76 ETAT BELGE WALLONNE A97 D13 (A11) = CH -625-535
Recovering protein from liquids esp. milk or lactoserum - 46973Y/27
- BIOM- 05.07.77 BIOMECHANICS LTD D15 = GB 1600-283
Anaerobic digestion tank - 02374B/02
- *BIOM- 31.01.80 BIOMASSAN LTD C03 D13 F09 (D15 D16) *CA 1108-920
Prepn. of animal feed biomass - 75783D/42
- *BIOT= 27.03.79 BIOTECH RES INST B04 D16 *SU -798-165
Microbiological prodn. of ribonuclease - 77299D/42
- BIOT= 27.05.80 BIOTECHN RES INST D16 = DK 8002-283
Fermentative prodn. of ethanol from materials contg. starch - 29047D/16
- BOEF 24.12.75 BOEHRINGER MANNHEIM GMBH B04 D16 S03 S05 = CH -625-272
Kinetic determination of enzyme substrates using coupled reactions - 45260Y/26
- BOEF 30.12.76 BOEHRINGER MANNHEIM GMBH D13 J07 = CH -625-332
Freeze drying granules of foods, drinks and pharmaceuticals - 47728A/27
- BOEH 07.01.77 BOEHRINGER INGELHEIM D13 E17 = US 4292-339
Stable buffered aq. food acid solns. - 19762A/11
- *BOIZ- 07.03.80 BOIZET & BERAUD SOC D12 *FR 2477-379
Machine for applying powder to sausage surfaces - 76224D/42
- BOLI 05.03.80 BOLIDEN AB D15 E37 = FR 2477-521
Heavy metals removal from acidic aq. solns. - 73713D/40
- BONG/ 04.03.80 BONGARD P D11 = FR 2477-376
Truck for bakery oven with air-recycling - 51688D/29
- BRAI- 10.03.80 BRAIBANTI & C SPA D13 = FR 2477-382
Prepn. of instant cooking alimentary pastes - 70348D/39
- BRAS- 21.06.77 BRASSERIES KRONENBO D16 S02 T04 = CH -625-431
Beer cask sorting with automatic identification of coded labels - 76369A/43
- *BRES/ 07.03.80 BRESCHARD J M D13 (D16) *FR 2477-381
Installation for natural fermentation of cocoa nibs - 76225D/42
- BROD/ 27.06.79 BRODELIUS P A97 B04 D16 = DK 8100-636
Catalyst for prodn. or transformation of natural prods. - 06110D/05

BROG-

- BROG- 28.09.73 BROGDEX CO C02 D13 E13 #J8 1040-684
2-4-thiazolyl benzimidazole and sodium ortho phenyl phenol - 46649T/29
- *BROW/ 03.04.80 BROWN AD D15 *GB 2073-164
Operating effluent treatment continuously and cyclically - 76345D/42
- *BRPE 02.04.80 BRITISH PETROLEUM LTD A97 D18 (A21) *EP --37-250
Synthetic tanning agents for leather - 76158D/42
- BRTA 19.10.78 BRIT AMER TOBACCO LTD A97 D18 = US 4292-032
Mfg. cigarette filter tips contg. annular smoke barriers - 12915C/08
- *BRUC- 28.03.80 BRUCKNER-WERKE KG D14 *DE 3012-013
Food dispenser esp. for soft ice creams - 75863D/42
- BUHL 24.06.77 BUEHLER AG D23 = GB 1600-165
Set gap seal for flaking rolls prodn. - 02181B/02
- *BUHL 21.03.80 BUHLER GEBR AG D24 *EP --36-985
Mixer for solids and liquids - 76046D/42
- BURD- 14.04.75 BURDOSA HB D15 J02 = J8 1040-632
Loop reactor for fluid mixing - 81431X/44
- BURR- 10.02.78 BURRUS F J & CIE D18 = CH -625-104
Paper tube for making hand-filled filter tipped cigarette - 44059B/24
- CAFF- 21.09.79 CAFFES TRUST C04 D15 H01 J01 = US 4292-121
Solid-liq. sepn. through liq. vaporisation and condensn. - 53610D/30
- CARL- 07.06.78 CARLE & MONTANARI S D13 = DS 2918-583
Automatic synchronisation of dispenser with mould boxes - 91331B/51
- *CAVA/ 04.04.80 CAVALLIA D11 *GB 2073-089
Die plate for extruding tubular pasta - 76334D/42
- *CBRI 14.02.80 CHICAGO BDGE & IRON CO D15 J07 *US 4291-550
Crystallising or freezing out component from mixt. - 77553D/42
- *CCCP 24.06.77 CROWN CHEMICAL CORP D22 E17 *GB 1600-505
Veterinary heat therapy bandage - 76310D/42
- CELL- 11.08.77 CELFIL CO D18 F09 = CH -625-403
Mfr. of paper band for cigarette filter tips - 89704A/50
- CELL- 16.02.78 CELLULOSE ATTISHOLZ AG D15 = EP G003-787
Sewage plant aerating device - 64968B/36
- *CEPE- 27.03.80 CEPED CENT PESQUISA D16 *BR 8001-864
Sepn. and concn. of alcohol - D/42
- CEVA- 17.08.76 CEVA SA D13 = CH -625-400
Silaging process for plants for animal feeds - 90092Y/51
- CGRR 04.03.80 CGR MEV D14 K08 X14 (X25) = FR 2477-827
Linear accelerator for charged particles - 68320D/38
- *CHEM- 28.03.80 VEB CHEMIEANLAGE LE A88 D15 *DD -149-657
Sewage aerator impeller - 75821D/42
- CHIN 16.09.75 CHINOIN GYOGYSZER B02 C02 D21 E13 = CH -625-229
Antifungal substd. benzimidazoles - 05755Y/04
- CHIN 28.12.79 CHINOIN GYOGYSZER A97 D13 E14 = DK 8005-511
Reducing phenylalanine content of protein hydrolysates - 50271D/28
- CHIN 18.02.80 CHINOIN GYOGYSZER A97 D13 = NL 8100-763
Flavouring tea using granules of suspensions - 47846D/27
- CHIY 05.06.73 CHIYODA CHEM ENG CO D15 M12 = J8 1039-957
Spent pickling liquor purifn - 71276W/43
- *CHRI- 22.07.77 CHRIST T AG D15 *CH -625-425
Suspended particles removal from aq. soln. - 75800D/42
- CIBA 22.03.77 CIBA GEIGY AG C03 D15 (C04 D13) = GB 1600-162
Clarification sludge granulation - 73090A/41
- CIBA 13.06.79 CIBA GEIGY AG B04 D16 = DK 8100-133
Cultures of Myxococcus fulvus and its extracts - 00129D/01
- CIBA 13.06.79 CIBA GEIGY AG B04 D16 = DK 8100-133
Cultures of Myxococcus fulvus and its extracts - 00129D/01
- CIBA 27.03.80 CIBA GEIGY AG A14 D21 (A96) = BR 8101-823
Polymer for hair fixing formulations - 76209D/42
- *CIBA 27.03.80 CIBA GEIGY AG A14 D21 (A96) *EP --37-378
Polymer for hair fixing formulations - 76209D/42
- *COLG 05.11.75 COLGATE PALMOLIVE CO D25 E14 *US 4292-191
Activated solid bleaching compsns. - 77684D/42
- COLG 19.08.76 COLGATE PALMOLIVE CO A96 D22 = CH -625-105
Absorbent pad for use as disposable napkin, sanitary towel etc. - 02136A/02
- COLG 20.12.76 COLGATE PALMOLIVE CO D22 = CH -625-106
Baby's disposable napkin with pressure sensitive adhesive tapes - 30282A/17
- COLG 12.07.78 COLGATE PALMOLIVE CO A96 D21 #DK 7903-696
Dental reconstitution compsns. based on organic resin - 12908C/08
- COMB- 28.02.80 COMBE INC D21 E19 (E37) = NO 8100-669
Aq. compsn. for darkening keratin material - 68299D/38
- COMM- 28.03.80 COMMONWORK ENTERPRI D16 #EP --36-915
Anaerobic slurry digester with capping - 82444C/46
- *CONF= 16.03.79 CONFECTINERY IND IN D13 S03 *SU -798-587
Sample holder for fats - 77436D/42
- CONO 04.02.80 CONOCO INC A25 D25 E19 F09 (A97) = J5 6113-345
Alkoxylation of alcohol using basic barium or strontium catalyst - 62566D/35
- CONO 13.02.80 CONOCO INC D25 E17 = J5 6113-720
Alkoxylation of alcohol using promoted barium contg. catalyst - 66283D/37
- CONO 14.02.80 CONOCO INC D25 E14 = J5 6113-719
Alkoxylation of cresylic acid using barium or strontium catalyst - 66282D/37
- CORP 09.11.77 CPC INTERNATIONAL INC D13 = CA 1108-925
Low-calorie peanut spread - 41080B/22
- CORP 26.03.80 CPC INTERNATIONAL INC D17 = BR 8101-777
Starch and protein recovery from starch bearing materials - 72356D/40
- *CORP 03.06.80 CPC INTERNATIONAL INC D17 *BE -889-045
Continuous prepn. of crystalline dextrose from starch hydrolysate - 75755D/42
- *COUL/ 26.04.76 COULTHARD T L C03 D13 *US 4292-328
Thermophilic aerobic digestion process for faecal matter etc. - 77749D/42
- CRDC 10.06.77 CORDIS DOW CORP A32 D15 J01 (A88) = CH -625-128
Moulding resin baffles at intervals along filamentary bundles - 89666A/50
- CRDC 10.06.77 CORDIS DOW CORP A32 D15 J01 (A88) = GB 1600-448
Moulding resin baffles at intervals along filamentary bundles - 89666A/50
- CSIR 24.12.75 COMMONWEALTH SCIENT ORG A97 B04 D13 J01 = CH -625-135
Absorbent and magnetic particles dispersion in porous polymer matrix - 49081Y/28
- DAGM- 21.03.75 DAGMA DEUTSCHE AUTO D15 T05 = CH -625-402
Carbonated drinks mfr and distribution - 61611X/33
- DAIL 01.06.77 DAICEL LTD A88 D15 J01 = US 4292-417
Semipermeable membrane for sepn. of (in)organic cpds. from brine etc. - 10983B/06
- *DATA 29.06.79 DATA PACKAGING CORP D16 K08 *US 4292-273
Radioimmunoassay plate with flat bottomed wells - 77724D/42
- *DAUC 14.02.80 DAI-ICHI KAGAKU YAK B04 D16 *J5 6113-299
Measuring activity of leucine-aminopeptidase - 76888D/42
- *DAUG= 06.05.76 DAUGAVPILS DAIRY D13 *SU -799-840
Washing out vacuum evaporators for milk processing - 77515D/42
- *DCAF 02.04.80 DCA FOODS INDS INC D14 *BE -888-236
Machine to remould ice lolly etc. on stick - 75743D/42
- DEGS 27.03.80 DEGUSSA AG D25 E33 = BR 8101-827
Very fine crystalline sodium aluminosilicate zeolite prodn. - 73993D/41
- DEGS 27.03.80 DEGUSSA AG D25 E33 = EP --37-018
Very fine crystalline sodium aluminosilicate zeolite prodn. - 73993D/41
- DENT- 11.04.74 ET DENTAIRE IVOCLAR A96 B05 D21 = CH -625-120
Water-insol. fluoro-silane compsns for dental purposes - 71060W/43
- DENT- 03.05.79 DENTAL THERAPEUTICS D21 = DK 8100-003
Plaque-dissolving tooth-paste - 86329C/48
- *DENT- 02.04.80 DENTLAB D21 *GB 2073-093
Separating wax and plaster in denture mfr. - 76337D/42
- DIXI- 06.02.80 DIXI YARNS INC D25 E19 = J5 6112-565
Device for scavenging random dyes in laundry baths - 62577D/35
- DMVC- 28.03.80 DMV-CAMPINA BV D13 = BE -888-143
Cheese mfr. - 74297D/41
- *DOCT= 27.04.79 DOCTOR RETRAINING A96 D22 *SU -799-740
Plastic surgery for radiation ulcers - 77467D/42
- *DSOP 12.02.80 DSO PHARMACHIM B04 D21 (D16) *J5 6113-708
Yogurt enzymatically decomposed - 76977D/42
- DYNN 17.08.72 DYNAMIT NOBEL AG D23 E14 = J8 1040-144
Alkyl arylacetates prepn - 05581V/04
- *DZHA= 11.04.78 DZHAMBUL LIGHT FOOD D17 *SU -799-784
Liquid suspension disc filter for use in sugar prodn. etc. - 77481D/42
- *DZHO/ 07.08.78 DZHOBADZE G A D13 *SU -799-705
Treating green leaf tea - 77459D/42
- *EAGR= 07.03.79 EST AGRIC ACAD D12 (D16) *SU -798-171
Lactobacterium plantarum microbial strain - 77305D/42
- *EART- 08.02.80 EARTH SEIYAKU KK C03 D22 E16 *J5 6110-604
Insect repellent active e.g. against cockroaches - 76442D/42
- *EBAI 08.02.80 EBARA INFILCO KK D15 J01 *J5 6113-305
Backwashing filter for e.g. dirty water - 76891D/42
- *EBAI 12.02.80 EBARA INFILCO KK D15 J01 *J5 6113-391
Treating waste water contg. fluorine cpds. - 76928D/42
- *EICK- 31.03.80 EICKEN CHEMICAL CO D16 *DE 3040-005
Enzyme-stabiliser mixt. reducing inactivation after freeze-drying - 76003D/42
- EISA 12.01.80 EISAI KK B05 D16 (B03) = J5 6113-718
Terpenoid(s) having antiulcer activity - 36369D/21
- EISA 12.01.80 EISAI KK B05 D16 (B03) = J5 6113-718
Terpenoid(s) having antiulcer activity - 36369D/21
- *EISA 12.01.80 EISAI KK B05 D16 E19 *J5 6113-721
Bi: functional terpenoid(s) prepn. by oxidn. - 76981D/42
- ELEC 06.03.80 ELECTRICITE DE FRANCE D17 E17 J03 X25 = FR 2477-578
Electrochemical redn. of acid solns. of sugars - 70426D/39
- *ELET- 24.03.80 ELETROMETAL JAUENSE D16 *BR 8001-755
Alcoholic fermentation for distilleries - D/42

- *EMTE/ 27.02.80 EMTERYD O D15 *SE 8001-516
Phosphorus content redn. in effluents - D/42
- ENGH 12.02.80 ENGELHARD MINERALS CORP D15 J01 M25 = J5 6113-343
Recovery of precious metals from soln. - 62855D/35
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = J5 6113-397
Recovery of metals from low concn. aq. solns. - 60922D/34
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = J5 6113-398
Recovery of metals from low concn. aq. solns. - 60923D/34
- ERAP 22.02.80 SOC NAT ELF AQUITAI D21 E19 = NL 8100-890
Hydrating agents for keratinic materials - 47865D/27
- *ERAP 07.03.80 SOC NAT ELF AQUITAINE D15 *FR 2477-522
Treating manures by two stage anaerobic fermentation - 76238D/42
- *ERAP 06.06.80 SOC NAT ELF AQUITAI C03 D21 E19 *BE -889-109
Stable oil-in-water emulsion prepn. - 75769D/42
- ERSA- 24.12.79 ERSACHS E KG GMB D21 S05 = DS 2952-102
Modelling tool for denture wax patterns - 50125D/28
- *ESSO 05.05.70 EXXON RES & ENG CO D15 J01 M25 *US 4292-181
Liq. membrane process for selective ion transfer - 77676D/42
- ESSO 05.05.77 EXXON RES & ENG CO A88 D15 H05 J01 = CA 1108-999
Oil removal from waste water - 13500D/08
- ESSO 10.03.80 EXXON RES & ENG CO A85 D15 J03 L03 (X16) = FR 2477-781
Electrochemical cells using non-selective membranes - 28954D/16
- ETHY 10.03.80 ETHYL CORP D25 E12 = US RE30-755
High purity alkali-metal salts of carboxyalkoxy succinates prepn. - 09013W/05
- EURO- 22.02.80 EUROTECH INT LTD D15 H03 J01 = NL 8100-843
Pumping apparatus for collecting polluted liquids - 64691D/36
- EUTE- 11.01.77 EUTECO SPA D25 E17 = CH -625-506
Linear alkyl-sulphonic acid sepn. from crude sulphoxidation prod. - 53762A/30
- *FABR 21.03.80 FABRE PSA D21 E12 *EP --37-318
Anti:dandruff, anti:seborrhoea thio:salicylic acid metal salt compsn. - 76184D/42
- FANT/ 06.12.76 FANTA GF A14 B04 D15 (D16) = CA 1109-052
Saponified graft copolymers used for aq. liq. adsorbents - 26985A/15
- FANT/ 06.12.76 FANTA GF A14 B04 D15 (D16) = CH -625-136
Saponified graft copolymers used for aq. liq. adsorbents - 26985A/15
- FARB 22.02.75 BAYER AG D23 E14 (D21 D25) = US 4292-210
Stable dichloro-cyclopropane derivs. - 68932X/37
- FARB 10.03.77 BAYER AG A60 D22 E13 F01 = GB 1600-103
Antimycotic synthetic polymer fibres - 67250A/38
- FARB 15.02.79 BAYER AG A41 C04 D15 E35 (E13 E17) = US 4292-043
Ammonium sulphate contg. waste water treatment - 64527C/37
- FARB 22.03.79 BAYER AG C03 D22 E17 = DD -149-609
Microbicidal agents for use as disinfectants - 71715C/41
- FARB 18.03.80 BAYER AG A14 D21 E15 (A60 A96) = EP --36-969
Polymerisation of methyl methacrylate with enol ether - 73880D/41
- *FARF 26.03.80 VEB CHEMIEKOMB BITT D25 E13 *DD -149-678
Washing, cleansing and disinfectant compsns. - 75837D/42
- *FARF 31.03.80 VEB CHEMIEKOMB BITT A13 B04 D15 *DD -149-673
Crosslinking and chloromethylating vinyl aromatic (co)polymers - 75833D/42
- FARH 05.05.76 HOECHST AG D21 E12 = CA 1109-075
(2)-acyloxy-alkane-(1)-sulphonates prepn. - 79374Y/45
- FARH 16.02.80 HOECHST AG B04 D16 = NL 8100-718
Microbiologically produced interferon poly:peptide - 64373D/36
- FARH 16.02.80 HOECHST AG B04 D16 = NL 8100-719
Microbiologically prepd. human interferon - 62879D/35
- FARH 28.03.80 HOECHST AG A97 D12 (A11 A32) = DE 3012-251
Hydrated cellulose hose with internal coating - 76062D/42
- *FARH 28.03.80 HOECHST AG A11 D12 (A32 A97) *DE 3012-252
Cellulose hydrate tube with impermeable lining esp. for sausage skin - 75877D/42
- *FARH 28.03.80 HOECHST AG A97 D12 (A11 A32) *EP --37-023
Hydrated cellulose hose with internal coating - 76061D/42
- *FARH 28.03.80 HOECHST AG A97 D12 (A11 A32) *EP --37-024
Hydrated cellulose hose with internal coating - 76062D/42
- *FARH 28.03.80 HOECHST AG A97 D12 (A11 A32) *EP --37-025
Hydrated cellulose hose with outer coating - 76063D/42
- *FAUN/ 28.12.78 FAUNCE FR B06 D21 *US 4292-306
Gel-like, water free dentifrice - 77740D/42
- *FERM= 27.03.79 FERMENT PROD RES D16 *SU -798-168
Compsn. for prodn. of bitter liqueur - 77302D/42
- FERO 21.03.80 FERROSAN B03 D21 = GB 2073-180
2- or 3-alkyl 4-hydroxy-alkyl morpholine derivs. - 56987D/32
- FEUR/ 00.00.75 FEURING W D12 = DE 3012-595
High speed cutting mincer for sausage meat etc. - 71617C/41
- FICH 18.01.80 FICHEL & SACHS AG D15 J01 = J5 6111-013
Indicating exhaustion level of adsorption filter - 55299D/31
- FICH 18.01.80 FICHEL & SACHS AG D15 = J5 6111-081
Drinking water filter - 55298D/31
- FIRM 06.12.77 FIRMENICH SA B07 C03 D13 E13 (B03) = CH -625-401
3-Methyl-1,2,4-trithiane used in aromatising compsns. - 44320B/24
- *FISO 26.08.77 FISON LTD C02 D15 (C01) *GB 1600-289
Incorporating microbicides into water for nutrient film systems - 76294D/42
- *FOOD= 05.03.79 FOOD EQUIP RES EXPE D14 *SU -799-694
Homogeniser, e.g. for milk - 77453D/42
- FRAJ/ 05.03.80 FRAJDENRAJCH S B05 D21 = FR 2477-411
Hair compsn. to prevent loss and encourage regrowth - 70228D/39
- FRAN/ 03.06.81 FRANDSEN AS D15 #BE -889-065
Biological purification of waste water - 09728D/06
- *FRAU 03.04.80 FRAUNHOFER-GES FORD ANGE D22 *DE 3013-255
Adsorption and catalytic decomposition of intestinal gases - 75973D/42
- FRRR 20.07.79 FERRERO OHG D11 = DD -149-603
Smooth-surfaced wafer prodn. - 05896D/05
- FUJI- 26.09.79 FUJIZOKI PHARMACEUT B04 D16 = US 4292-404
Colorimetric determ. of angiotensin-converting enzyme - 27498D/16
- *FUKO 09.02.80 FUJI OIL KK B04 D16 *J5 6113-289
Beta-amylase extract concentration and refining - 76881D/42
- GARD- 07.09.78 GARDNER J W ENTERPR D13 #CA 1108-924
Products based on hydrated peanuts - 06096B/04
- GEES/ 20.02.80 GEESINK BT A88 D13 = NL 8001-029
Plastic mould or follower for cheese - 66364D/37
- GENE- 24.03.80 GENENTECH INC B04 D16 = BR 8101-712
Prodn. of polypeptide(s) from recombinant bacteria - 74186D/41
- GENE- 24.03.80 GENENTECH INC B04 D16 = GB 2073-203
Prodn. of polypeptide(s) from recombinant bacteria - 74186D/41
- *GENO 27.03.80 GENERAL FOODS CORP D24 *EP --37-204
Dry curcumin colourant stabilised to storage in alkaline mixts. - 76138D/42
- *GENO 27.03.80 GENERAL FOODS CORP D13 *EP --37-205
Frozen aerated gelatin dessert compsn. - 76139D/42
- *GENO 31.03.80 GENERAL FOODS CORP D13 *EP --37-208
Modified waxy maize starch having properties of tapioca - 76140D/42
- *GENO 31.03.80 GENERAL FOODS CORP D13 *EP --37-209
Low calorie foods contg. indigestible poly:ol(s) or polysaccharide (s) - 76141D/42
- *GEOR/ 18.04.80 GOERGEVICH S A96 D22 *US 4291-697
Sterilisable medical cleaning element - 77568D/42
- *GETP- 21.03.80 GETPLAST SARL D12 *EP --37-350
Installation for storing, preserving and transforming meat prods. etc. - 76197D/42
- *GIDR= 28.03.79 GIDROLIZPROM IND D16 *SU -798-174
Hydrolysis apparatus for vegetable materials - 77308D/42
- *GIDR= 28.03.79 GIDROLIZPROM IND D16 T06 X25 *SU -798-175
Automatic hydrolyser control - 77309D/42
- GIVA 12.07.76 GIVAUDAN L & CIE SA D23 E15 = CH -625-495
4-Methyl-4-hydroxy-pentyl-cyclohexenal perfumes prepn. - 06678A/04
- GKSS- 21.09.79 GKSS-FORSCHUNGSZENT D15 = DD -149-656
Water purification and aeration - 79085C/45
- *GRAC 16.01.80 GRACE W R CO A97 D25 (A25) *US 4292-412
Hydrophilic fabric softener urethane foam forming compsn. - 77777D/42
- GRAC 22.02.80 GRACE W R CO A14 D25 G02 (D15) = NL 8006-490
Prepn. of poly:amine:amide polymer - 47871D/27
- GRAC 22.02.80 GRACE W R CO D25 E16 (D15) = NL 8006-493
Sec. amine prodn. from olefin cpds. - 47872D/27
- GRAC 22.02.80 GRACE W R CO A26 D15 E16 G02 (E14) = NL 8006-673
Alkylation of poly:amine for mfr. of surfactants, softeners, etc. - 47873D/27
- *GWIN= 26.03.79 GEOR WINE MFG IND D16 *SU -798-167
Wine prodn. fermenter cap immersing unit - 77301D/42
- HAAR 13.07.77 HAARMANN & REIMER GMBH D23 E13 = EP G000-476
Natural musk odorant cyclopentadecanolide prodn. - 06252B/04
- *HABE/ 05.04.80 HABERLP D11 *DE 3013-348
Bread and pastry mfr. - 75986D/42
- HANS- 25.04.79 CHR HANSENS LAB A/S D13 (D16) = DK 8005-538
De:stabilising proteolytic activity of milk clotting enzymes - 82587C/46
- *HASE 12.02.80 HASEGAWA KK B05 D13 E15 (B05 D21) *J5 6113-729
4-(2-Butenylidene)-3,5,5-tri:methyl-2-cyclo:hexen 1-one prepn. - 76985D/42
- *HASE 12.02.80 HASEGAWA KK D23 E13 *J5 6113-775
2-(2-Methyl-2-propenyl)-4-methyl 2H-5,6-di:hydro:pyran - 77012D/42
- *HASE 12.02.80 HASEGAWA KK D23 E13 *J5 6113-776
Tetra-hydro pyran derivs. - 77013D/42
- HATA/ 27.04.78 HATANOM D15 = J5 4141-459
Automatic draining of pptes. or sludges from water filter - 77043D/42
- *HATA/ 27.04.78 HATANOM D15 *J8 1039-926
Automatic draining of pptes. or sludges from water filter - 77043D/42
- *HAYA- 08.02.80 HAYAKAWA GUM KK A93 D22 G04 M14 *J5 6111-659
Butyl rubber sealing cpd. contg. tannic acid - 76668D/42
- *HEND/ 01.06.81 HENDRIKS PJ D16 E17 *BE -889-033
Domestic refuse fermentation plant - 75751D/42

HENE

- HENE 25.02.74 HENKEL KG AUF AKTIEN D25 = CH -625-550
Pourable detergents and cleansers - 59162W/36
- HENE 22.03.75 HENKEL KG AUF AKTIEN A97 D16 = CH -625-534
Recovering proteins from aq solns - 76000X/41
- * HENE 29.11.78 HENKEL CTRP D21 E16 *US 4292-212
Single aq. phase shampoo-creme rinse compsn. - 77697D/42
- HENE 27.12.78 HENKEL KG AUF AKTIEN D21 = US 4292-088
Substitute for beeswax in cosmetics - 51771C/30
- HENE 26.03.80 HENKEL KG AUF AKTIEN D21 E17 = EP --37-009
Hair and body cleaning compsn. - 73955D/41
- HENE 27.03.80 HENKEL KG AUF AKTIEN D25 E33 = BR 8101-827
Very fine crystalline sodium alumino-silicate zeolite prodn. - 73993D/41
- HENE 27.03.80 HENKEL KG AUF AKTIEN D13 = EP --37-017
Fat compsn. suitable as milk fat substitute - 73985D/41
- HENE 27.03.80 HENKEL KG AUF AKTIEN D25 E33 = EP --37-018
Very fine crystalline sodium alumino-silicate zeolite prodn. - 73993D/41
- HENE 28.03.80 HENKEL KG AUF AKTIEN A97 D25 E19 = DE 3011-998
Storage-stable, soluble evenly coated bleach activator granulate - 76064D/42
- * HENE 28.03.80 HENKEL KG AUF AKTIEN A97 D25 E19 *EP --37-026
Storage-stable, soluble evenly coated bleach activator granulate - 76064D/42
- HENE 08.09.76 HENKEL & CO D15 E17 = CH -625-551
Beverage treatment unit - 15859A/08
- HERA 31.03.76 HERAEUS W C GMBH D23 E17 = CH -625-496
Cinnamaldehyde hydrogenation to odoriferous dihydrocinnamaldehydes - 72682Y/41
- HETB 28.03.80 HEINEKEN TEC BEHEER NV D16 = BE -888-144
Malt prodn. by treating grain with carbohydrate soln. - 74012D/41
- HETB 28.03.80 HEINEKEN TEC BEHEER NV D16 = GB 2073-242
Malt prodn. by treating grain with carbohydrate soln. - 74012D/41
- * HILL 31.03.80 HILLWOOD CORP A96 D22 S03 (S05) *GB 2073-416
Disposable swab and culture unit - 76407D/42
- HIRS/ 02.04.80 HIRSCHMAN S Z D22 F07 #GB 2073-021
Feminine hygienic pads mfr. - 28949C/16
- * HITA 15.02.80 HITACHI KK D15 *J5 6113-400
Waste water treatment to decompose soluble organic cpds. - 76930D/42
- HOB A- 06.06.77 HOBART CORP D14 = GB 1600-082
Hand operated high speed food mixer - 72303A/40
- HOB A- 06.06.77 HOBART CORP D14 = GB 1600-083
Foodstuff mixing bowl and integral motor - 92971A/51
- HOB A- 06.06.77 HOBART CORP D14 = GB 1600-084
Locking food mixer blades to drive shaft - 72304A/40
- HOB A- 06.06.77 HOBART CORP D14 = GB 1600-085
Automatic food mixer with lid - 66998A/37
- HOFF 25.03.76 HOFFMANN-LA ROCHE AG A96 B04 D16 S03 (S05) = CH -625-626
Freeze-dried latex-bound serological reagents - 71037Y/40
- * HONS 02.04.80 YAKULT HONSHAKK B04 D16 *GB 2073-202
Restriction enzymes prodn. - 76366D/42
- HOOK 27.12.78 HOOKER CHEM & PLAS D15 H09 = DK 8003-625
Solid fuel prodn. from waste-water sludge - 49829C/29
- * HOPE/ 21.03.80 HOPETCF A96 D22 *EP --36-910
Thermal bandage - 76024D/42
- * HORT= 17.04.79 HORTICULT VINE-GROW D13 *SU -799-709
Making quince conserves - 77461D/42
- * HUNT/ 17.10.79 HUNTAJ D13 *US 4291-619
Fruit juice extn. press with auger - 77560D/42
- IBPI- 05.03.80 IBP IND BUITONI PER D13 = FR 2477-380
Foodstuffs contg. cheese and tomato - 19388D/12
- ICIL 24.04.73 IMPERIAL CHEM INDS LTD A96 D21 (A25) = SU -799-629
Dental filling polyurethane fluid compsn. - 77544V/45
- ICIL 19.05.75 ICI US INC D17 E13 = J8 1040-700
Mannitol prep. from glucose solutions - 90601X/49
- ICIL 15.12.75 IMPERIAL CHEM INDS LTD D23 E14 = CH -625-497
(Ortho)-hydroxy-araldehydes prep. - 39814Y/23
- * ICIL 30.03.78 ICI AMERICAS INC D17 *US 4292-451
Prepn. of mannitol-rich solns. - 77792D/42
- ICIL 28.03.80 IMPERIAL CHEM INDS LTD B04 D16 = BR 8101-907
Genetically modified autotrophic or methylotrophic bacteria - 76165D/42
- * ICIL 28.03.80 IMPERIAL CHEM INDS LTD B04 D16 *EP --37-273
Genetically modified autotrophic or methylotrophic bacteria - 76165D/42
- IIO D- 24.02.77 IIO DENKI KK D15 J04 = J5 3105-288
Determining organic content in water - 77063D/42
- * IIO D- 24.02.77 IIO DENKI KK D15 J04 *J8 1040-295
Determining organic content in water - 77063D/42
- IIO D- 27.12.77 IIO DENKI KK D15 J04 = J5 4089-796
Determining concn. parameters of organic material in water - 77064D/42
- * IIO D- 27.12.77 IIO DENKI KK D15 J04 *J8 1040-296
Determining concn. parameters of organic material in water - 77064D/42
- INFL 15.12.78 INT FLAVORS & FRAGR INC D23 E15 (D13 D18) = US 4292-447
Organoleptic butenoyl and butanoyl cyclohexane and cyclohexene cpds. - 46644C/27
- * INFL 03.08.79 INT FLAVORS & FRAGR INC D13 E13 *US 4292-193
Enhancing aroma or detergent compsns. - 77685D/42
- * INPR= 26.03.79 IND PROE AUTO RES D16 *SU -798-167
Wine prodn. fermenter cap immersing unit - 77301D/42
- * INSP 07.03.80 INST PASTEUR B04 D16 *FR 2477-417
Antigenic peptide(s) prep. from influenza virus - 76229D/42
- INTE- 08.04.77 INTEROX D25 E34 = GB 1600-106
Super-oxidised sodium perborate mfr. in fluid bed - 72728A/41
- INTE- 08.04.77 INTEROX D25 E34 = GB 1600-107
Mono-hydrated sodium perborate granules - 72729A/41
- * INTE- 20.03.80 INTERCYLINDER AB D15 (D14) *GB 2073-032
Domestic beverage aerator - 76316D/42
- INTE- 01.04.80 INTEROX CHEM LTD D25 E36 = BE -888-173
Aq. hydrogen peroxide bleach compsns. - 74330D/41
- * INTE- 01.04.80 INTEROX CHEM LTD D25 E19 *EP --37-184
Stable liq. detergent compsn. contg. hydrogen peroxide - 76131D/42
- * ISKH/ 31.07.78 ISKHAKOV EG D11 X25 *SU -797-969
Bread loaves feeder - 77200D/42
- ITAF 08.05.79 ITALFARMACO B04 D16 = US 4292-409
Reactor for enzyme reactions - 65987C/38
- ITAF 28.02.80 ITALFARMACO A11 B04 D16 (A96) = SE 8100-864
Polysaccharide copolymer with enzymatic activity prodn. - 66258D/37
- * IVLK- 11.08.80 IVL-KONSULT AB D15 F09 *SE 8100-727
Treatment of effluents from pulp bleaching - D/42
- * JAAT 12.02.80 JAPAN ATOMIC ENERGY RES A96 B04 D16 *J5 6112-907
Irradiating vinyl monomer compsn. contg. bioactive material - 76802D/42
- * JAPC 06.02.80 NIPPON SHOKUBAI KAGAKU A97 D15 (A14) *J5 6111-098
Descaling agent for aq. systems - 76601D/42
- JAPG 10.03.75 NIPPON ZEON D15 J01 (D13 D16) = J5 1103-873
Device with hollow semi-permeable fibres bundle - 61921X/33
- JAPG 10.03.75 NIPPON ZEON D15 J01 (D13 D16) = J8 1040-604
Device with hollow semi-permeable fibres bundle - 61921X/33
- JENO- 04.03.80 JENOS INC D11 = FR 2477-377
Non-docked fried dough crusts prodn. - 68433D/38
- JOHN/ 11.08.78 JOHNSON LA B04 C03 D16 = US 4292-327
Micromycetosis - 53425W/32
- JOHO 25.02.80 JOHNSON MATTHEY LTD A35 D23 = NL 8100-875
Hydrogenation of unsatd. cpds., esp. polymers - 64647D/36
- JONS/ 21.12.78 JONSSON O D13 = US 4292-335
Sepp. coconut kernel into fibres, oil and cellular liq. - 72110C/41
- * KAET/ 06.06.80 KAETHER W D17 *BE -889-070
Dehydration of sugar cane bagasse - 75757D/42
- KAKE 15.02.80 KAKEN CHEM KK B04 D16 = J5 6113-791
Antibiotics actinomadura L-31A and L-31B - 62876D/35
- KALI 10.06.77 KALI-CHEMIE AG B04 D16 = GB 1600-339
Water-insoluble immobilised enzyme prod. prep. - 63596A/36
- KANE 14.02.80 KANEBO KK B05 D16 = J5 6113-296
D(-)-Beta-hydroxy-isobutyric acid microbiological prodn. - 36564D/21
- KANE 08.03.80 KANEBO KK D21 E13 = FR 2477-412
Stable cosmetic emulsions - 72301D/40
- KANE 08.03.80 KANEBO KK D21 E13 = FR 2477-413
Stable, clear, non-gelling liq. skin cosmetic compsn. - 70354D/39
- * KANK- 14.02.80 KANKYO ENG KK D15 J01 M21 *J5 6113-392
Treating emulsified-oil-contg. effluent - 76929D/42
- KANS- 04.03.80 KANSAI CHEM ENG CO LTD D16 J04 = GB 2073-243
Multistage continuous reactor - 74018D/41
- KAOS 22.12.78 KAO SOAP KK D25 E19 F06 = GB 2073-268
Bleaching compsn. for patterned or coloured clothes - 72077B/40
- * KAOS 05.02.80 KAO SOAP KK D21 E19 (E37) *EP --37-161
Storage stable cream cleanser - 76118D/42
- * KAOS 05.02.80 KAO SOAP KK A96 D21 E19 *J5 6110-608
Hair rinsing and softening compsn. - 76446D/42
- * KAOS 05.02.80 KAO SOAP KK A96 D25 *J5 6110-799
Cream-form detergent compsn. - 76564D/42
- * KAOS 07.02.80 KAO SOAP KK A97 D15 E12 *J5 6110-800
Cleaning agent for bath water contg. di:chloro:isocyanuric acid salt - 76565D/42
- * KAOS 08.02.80 KAO SOAP KK A97 D25 E19 *J5 6112-999
Detergent compsn. with good foaming properties - 76862D/42
- * KASP= 10.11.78 KASPIAN KASPEKHYB D12 *SU -793-549
Glazing cage for large fish, e.g. sturgeon - 77155D/42
- * KAWA- 08.02.80 KAWAKEN FINE CHEM K A96 D21 E17 *J5 6111-034
Water-in-oil emulsifier used in cream prods. - 76584D/42
- KAWA- 13.02.80 KAWAKEN FINE CHEM D21 E16 (D25) = J5 6112-997
Transparent detergent bars - 90464C/51
- * KAWA- 13.02.80 KAWAKEN FINE CHEM KK D25 E19 *J5 6112-998
Non-irritant transparent solid detergent - 76861D/42
- * KDES= 02.11.78 KAZA DES BUR D13 *SU -799-712
Machine for slicing apples and removing cores - 77464D/42
- KEMA 22.10.75 KEMANORD AB A60 C03 D22 E16 = CH -625-208
Antimicrobial and pesticidal guanidated polyamine mixtures - 33078Y/19

- *KEMP/ 00.00.79 KEMPER K D11 *DE 3011-863
Dough portioning device - 75862D/42
- *KEMP/ 06.06.80 KEMPER K D11 *BE -889-034
Flat belt V-trough kneading machine for dough pieces - 75752D/42
- KERJ 24.12.75 KERNFORSCHUNGS JULICH D16 K05 M25 = US 4292-408
Living cells prodn. for absorbing metals from liqs. - 48957Y/28
- *KIFO= 04.11.78 KIEV FOOD IND RES D17 S03 *SU -798-565
Method and equipment for control of sugar crystallisation - 77426D/42
- KIHK- 23.02.78 KIIKAN CHO D23 (D16) = J8 1040-199
Deodorising oils derived from marine animals - 76067B/42
- *KIKK 05.10.78 KIKKOMAN SHOYU C03 D13 (C04) *US 4292-334
Puffing feathers or animal fur - 77752D/42
- *KILI= 06.01.78 KIEV LIGHT IND TECH D18 *SU -693-706
Raw hide tanning - 77139D/42
- *KIME/ 21.01.80 KIME W R D13 J01 (D15) *US 4292-051
Centrifugal fluid separator - 77618D/42
- *KIMO- 06.02.80 KIMOTO DENSHI KOGYO KK D15 J04 *J5 6111-465
COD value measurement - 76627D/42
- *KING/ 16.01.80 KING A S D15 J03 X25 *US 4292-163
Electrolytic treater for waste water - 77663D/42
- *KIPO= 15.08.77 KIEV POLY D22 *SU -799-703
Sterilising liquid products in variety of industries - 77457D/42
- KIRI 20.02.80 KIRIN BREWERY KK D16 = NL 8100-863
Low original gravity beers prodn. - 68501D/38
- *KNIT= 30.05.78 KNIT FABR IND RES A82 D22 E13 F08 (F06) *SU -798-211
Impregnating compsn. for cellulosic textile used in tropics - 77343D/42
- *KOCO/ 20.02.81 KOCOUREK M D12 *CS 8101-237
Singed pigs hides scraper - D/42
- *KOIS- 13.02.80 KOISHI PRESERVING K C03 D22 E19 F09 *J5 6113-702
Insecticidal compsn. contg. oil-soluble chlorinated insecticide - 76972D/42
- KOLL/ 29.12.79 KOLLROSS G D12 = DK 8005-518
Sausage case corrugating device - 49973D/28
- KOOP/ 04.10.67 KOOPMANS H D13 = DS 1800-766
Cheese curds prodn. - 60857Z/00
- KORH/ 22.06.78 KORHONEN K J D12 = CA 1108-811
Meat holding tool for carving operations - 03796C/03
- *KOTO/ 15.02.79 KOTOUSOVA A M D13 *SU -799-708
Conserves from fruits and vegetables - 77460D/42
- KROF/ 04.04.78 KROFCHAK D C03 D15 E36 M25 = CA 1108-866
Treatment of incinerated sewage sludge ash - 75731B/42
- KROP/ 28.12.79 KROPP W B04 D16 = FR 2477-418
Antimicrobial agents produced by irradiation of carrier materials - 49953D/28
- KUBI 22.07.76 KUBOTA KK D15 = J5 3013-542
Dirty sludge concentrator - 77092D/42
- *KUBI 22.07.76 KUBOTA KK D15 *J8 1040-607
Dirty sludge concentrator - 77092D/42
- KUBI 04.06.77 KUBOTA KK D15 = J5 4001-961
Appts. for flocculating sludge - 77091D/42
- *KUBI 04.06.77 KUBOTA KK D15 *J8 1040-606
Appts. for flocculating sludge - 77091D/42
- KUBI 05.07.77 KUBOTA KK D15 = J5 4015-360
Circular sedimentation tank - 77093D/42
- *KUBI 05.07.77 KUBOTA KK D15 *J8 1040-608
Circular sedimentation tank - 77093D/42
- KUBO/ 21.04.78 KUBOTA S D13 = J5 4140-756
Soybean curd prep. - 77040D/42
- *KUBO/ 21.04.78 KUBOTA S D13 *J8 1039-866
Soybean curd prep. - 77040D/42
- KURK 10.11.78 KURITA WATER IND KK D15 J01 = J8 1040-610
Device for peeling high viscosity cake from filter press - 45656C/26
- KURS 28.04.77 KURARAY KK A88 D15 J01 S02 (A35 S03) = J8 1039-921
Testing a hollow fibre membrane module for leaks - 84381A/47
- *KURS 07.02.80 KURARAY KK A96 B04 D16 *J5 6113-290
Highly active fixed enzyme prep. - 76882D/42
- *KURS 07.02.80 KURARAY KK A96 B04 D16 *J5 6113-291
Highly active fixed enzyme prep. - 76883D/42
- *KURS 07.02.80 KURARAY KK A14 B04 D16 F01 (A96) *J5 6113-292
Fixed enzyme prep. - 76884D/42
- *KURS 11.02.80 KURARAY KK A12 B07 D22 *J5 6112-946
Hydrated gelated rubber prods. for insulation etc. - 76827D/42
- KYOK- 23.07.76 KYOKUTO SHIBOSAN KK D22 F09 = J5 3014-096
Continuous prep. of humidity resistant card - 77049D/42
- *KYOK- 23.07.76 KYOKUTO SHIBOSAN KK D22 F09 *J8 1040-026
Continuous prep. of humidity resistant card - 77049D/42
- KYOW 25.12.79 KYOWA HAKKO KOGYO C D16 = DK 8005-505
Bubble column with coaxial draft device - 50112D/28
- *KYOY 13.02.80 KYORITSU YUKI KOGYO A11 D13 *J5 6112-901
Starch phosphate mfr. by reacting phosphoric acid epihalohydrin prod. - 76796D/42
- *LAVI/ 04.07.80 LAVIE L F D13 *BE -889-125
Water soluble powder compsn. for prep. of drinks - 75775D/42
- *LAVI/ 04.07.80 LAVIE L F D12 E35 *BE -889-126
Powdered caramel mfr. from sugar by heating - 75776D/42
- LEAN= 21.08.75 LENG D ANTIBIOTICS B04 C03 D16 #CH -625-271
Antimycotic antibiotic mycoheptin prodn. - 16576Y/10
- *LEAT= 13.03.79 LEATHER FOOTWEAR D18 *SU -798-176
Leather treatment for footwear - 77310D/42
- *LEFO= 11.03.79 LENG D FOOD IND RES D16 E17 *SU -798-164
Nutrient for Aspergillus niger culturing - 77298D/42
- *LEFO= 28.03.79 LENG D FOOD IND RES B04 D16 *SU -798-172
Microbiological prodn. of citric acid - 77306D/42
- LEGR/ 14.03.79 LEGRAIN M A J D14 S02 T06 = US 4291-647
Mixing plant for liq. feed for teat fed mammals - 72054C/41
- *LETE= 21.07.78 LENG D TEXT LIGHT IN A21 D15 F01 J04 (A97) *SU -798-200
Prepn. of electron-exchanging material esp. fibre - 77334D/42
- LEVY/ 10.01.80 LEVY S D16 E17 = DK 8100-108
Low energy extn. of alcohol(s) from aq. solns. - 30776D/17
- LINM 23.12.77 LINDE AG D15 = EP G002-769
Activated sludge treatment of waste water - 49277B/27
- *LION- 08.04.80 LION CORP A96 B05 D21 *GB 2073-019
Oral compsn. contg. tranexamic acid - 76314D/42
- LIOR/ 22.02.80 LIORETTE P D12 = NL 8007-116
Machine to strip skin, sinew etc. from meat - 34403D/20
- LIOY 06.02.80 LION CORP D21 E15 (D16) = J5 6110-609
Oral compsns., e.g. dentifrices, contg. dextranase - 60881D/34
- *LIOY 07.02.80 LION CORP A96 D21 E19 *J5 6110-607
Cosmetic compsn. for preventing scalp itch - 76445D/42
- *LIOY 08.02.80 LION CORP A96 B07 D22 *J5 6110-613
Plaster with pressure-sensitive adhesive layer - 76450D/42
- *LIOY 12.02.80 LION CORP D25 E19 *J5 6113-000
Liq. detergent compsn. - 76863D/42
- LIPP/ 05.04.80 LIPP X D16 E17 = GB 2073-166
Fermenting vessel for methane prodn. has rotary agitator shaft - 58798D/33
- *LIVA= 14.12.76 LIVANSK BIOCHEM WKS B05 D16 E16 *SU -656-341
Lysine microbial producer culture medium - 77134D/42
- *LIVE= 30.07.79 LIVESTOCK MECHN ELE D15 *SU -793-443
Liquid manure dewatering equipment - 77154D/42
- LOCH- 16.02.78 LOCHER & CIE AG D15 = EP G003-787
Sewage plant aerating device - 64968B/36
- *LONZ 10.12.76 LONZA AG D15 J01 M25 *CH -625-491
Reclaiming mercury from waste water - 75805D/42
- LOTT 06.02.78 LOTTE KK D13 #US 4292-329
Chewing gum compsn. contg. liq. centre - 42693B/23
- *MACH- 19.02.80 MACH MENZING ZONEN D14 X27 *NL 8001-007
Deep-frying tank holds heated oil floating on cooled water - 77109D/42
- *MAKE/ 27.03.80 MAKEDENSKY K D13 *BR 8001-849
Chewing gum vehicle - D/42
- *MAKS/ 06.04.79 MAKSIMOV G M D15 *SU -799-782
Liquids e.g. waste water filter - 77479D/42
- MAMA/ 28.04.77 MAMAHIT J J D13 = GB 1600-527
Peanut salting in boiling aq. salt soln. - 80474A/45
- MARU- 21.01.78 MARUTOMO KOKEN KK D15 J01 = J5 4099-268
Fine oil droplet aggregating appts. for water oil mixt. - 77094D/42
- *MARU- 21.01.78 MARUTOMO KOKEN KK D15 J01 *J8 1040-616
Fine oil droplet aggregating appts. for water oil mixt. - 77094D/42
- *MATU 06.02.80 MATSUSHITA ELEC IND KK D15 J04 *J5 6111-465
COD value measurement - 76627D/42
- *MATU 08.02.80 MATSUSHITA ELEC IND KK D13 (D16) *J5 6113-298
Determining freshness of foods - 76887D/42
- MAUR- 25.04.78 MAURI BROS & THOMSO D13 #GB 1600-175
Cheese vat with cutting and stirring blades - 41551C/24
- MAZN 09.01.80 MARUZEN KASEI KK B03 D13 E13 = J5 6113-793
18:alpha glycyrrhizinic acid - 62757D/35
- MAZN 08.03.80 MARUZEN KASEI KK D21 E13 = FR 2477-412
Stable cosmetic emulsions - 72301D/40
- MAZN 08.03.80 MARUZEN KASEI KK D21 E13 = FR 2477-413
Stable, clear, non-gelling liq. skin cosmetic compsn. - 70354D/39
- *MCHA/ 10.05.76 MCHAM D E D14 *US 4292-332
Expandable sealed pleated container of popcorn - 77751D/42
- *MEAT= 05.03.79 MEAT IND RES INST D12 J04 S03 *SU -798-590
Determin. of nitrogen content in meat prods. etc. - 77439D/42
- MEDL- 04.05.79 MEDLINE AB A96 D22 = DK 8005-565
Device for closing body passages, esp. for use as contraceptive - 90094C/50
- *MEIJ 01.04.80 MEIJI SEIKA KAISHA B04 C03 D16 (D22) *GB 2073-170
Antibiotics SF-2107 A-1 - 76348D/42
- *MELN/ 05.04.79 MELNIKOV I A D15 *SU -799-801
Liquids aerator for microbiological synthesis, etc. - 77497D/42
- MERI 21.11.75 MERCK & CO INC B02 C02 D13 E13 (D22) = CH -625-553
Antibacterial thienamycin antibiotics - 40282Y/23
- *MERI 23.11.77 MERCK & CO INC B03 C02 D22 E13 (D21) *US 4292-430
2-Hydrocarbyl-3-hydrocarbyl-amino iso-thiazolium salts - 77784D/42

MERI

- MERI 26.12.79 MERCK & CO INC B05 C03 D22 E16 (E15) = DK 8005-479
2-Methylene-and 2-amino-methyl-3-amino propionitrile derivs. - 51924D/29
- * MERI 27.03.80 MERCK & CO INC B04 D16 *EP --37-330
Prepn. of hepatitis B surface antigen in vitro - 76189D/42
- * MERI 31.03.80 MERIDIAN INDS INC A88 D14 *US 4292-180
Filter sock for milk pipeline system - 77675D/42
- MFAH 24.12.73 MASCH FAHR AG D16 = DS 2364-656
Compost heap turning machine for towing by tractor - 46392W/28
- * MICR= 14.12.76 MICROBIOL INST B05 D16 E16 *SU -656-341
Lysine microbial producer culture medium - 77134D/42
- MINU 04.05.79 MINNESOTA UNIVERSITY B04 D16 J01 = DK 8005-373
Fractional pptn. of protein(s) - 82635C/47
- MINU 07.01.80 MINNESOTA UNIVERSITY B04 D16 = US RE30-753
Aminoacid nutrient medium - 83869A/46
- * MITC 12.02.80 MITSUI PETROCHEM IND KK D15 J04 *J5 6112-647
Determn. of total organic carbon in halogen ion contg. sample - 76773D/42
- MITN 21.12.79 MITSUBISHI GAS CHEM IND D14 = DE 3047-285
Bag contg. oxygen absorbent - 60958D/34
- * MITN 12.02.80 MITSUBISHI GAS CHEM IND D13 *J5 6113-254
Astringency removal and preservation of persimmons - 76874D/42
- * MITN 12.02.80 MITSUBISHI GAS CHEM IND D13 *J5 6113-255
Astringency removal and storing of persimmons - 76875D/42
- MITO 21.12.77 MITSUBISHI HEAVY IND KK D15 = J8 1039-960
Biological treatment of waste water contg. dithionic acid and ammonia - 60849B/33
- MITO 31.08.78 MITSUBISHI HEAVY IND KK D15 = J8 1040-609
Filter press for waste water - 29831C/17
- MITP 05.02.80 MITSUBISHI PETROCH KK A25 C04 D21 G02 = J5 6110-717
Water-hardenable blocked urethane prepolymer prepn. - 32832D/19
- MITP 12.02.80 MITSUBISHI PETROCH KK A25 C04 D21 G02 = J5 6112-965
Water-hardenable blocked urethane prepolymer prepn. - 32832D/19
- MITQ 12.02.80 MITSUBISHI ELECTRIC CORP D15 = J5 6113-323
Water recovery from moist air - 90548C/51
- * MITQ 12.02.80 MITSUBISHI ELECTRIC CORP D22 J01 *J5 6113-324
Appts. for deodorising gas - 76905D/42
- * MITQ 12.02.80 MITSUBISHI ELECTRIC CORP D22 J01 *J5 6113-325
Device for deodorising waste gas - 76906D/42
- * MITQ 14.02.80 MITSUBISHI ELECTRIC CORP D22 J01 *J5 6113-327
Device for deodorising waste gas with ozone - 76908D/42
- * MITR 04.02.80 MITSUBISHI RAYON KK D15 E31 J01 K08 *J5 6111-043
Material for recovering radium and uranium from water - 76587D/42
- * MITR 04.02.80 MITSUBISHI RAYON KK D15 E31 J01 K08 *J5 6111-051
Compsn. for recovering radium and uranium from water - 76592D/42
- * MITU 04.02.80 MITSUBISHI CHEM IND KK A96 B02 D22 E13 *J5 6110-603
Antiseptic contg. naphtho-(2,3-D)-thiazole-4,9-dione - 76441D/42
- * MITU 13.02.80 MITSUBISHI CHEM IND KK A91 D15 J01 (A14) *J5 6112-910
Cation exchange resin mfr. - 76804D/42
- MLCW 31.03.80 MALLINCKRODT INC A96 B04 D16 S03 = GB 2073-415
Determn. of endotoxins in parenteral solns. etc. - 49508D/27
- MOBA- 09.12.77 MOBA HOLDING BARNEV D12 = EP G002-554
Device for holding and treating e.g. fowl - 48337B/26
- MOCH/ 21.04.78 MOCHIZUKI H D15 = J5 4140-266
Filter for treatment of dirty water etc. - 77042D/42
- * MOCH/ 21.04.78 MOCHIZUKI H D15 *J8 1039-922
Filter for treatment of dirty water etc. - 77042D/42
- * MOFO= 11.04.78 MOSC FOOD IND TECHN D17 *SU -799-784
Liquid suspension disc filter for use in sugar prodn. etc. - 77481D/42
- * MOFO= 27.03.79 MOSC FOOD IND TECHN D11 S03 X25 *SU -798-589
Bread dough baking preparedness monitor - 77438D/42
- * MOGI= 28.11.78 MOGIL TECHN INST D13 *SU -793-552
Rotary filming unit for drying cheese whey - 77157D/42
- * MOLD= 19.03.79 MOLOVINPROM WINE-MAKING D16 *SU -798-169
Low acidity wine stock clarification - 77303D/42
- * MOLL/ 31.03.80 MOLL H G D15 J01 *DE 3012-885
Producing high flushing pressures in filter sectors - 75939D/42
- * MOMI 14.02.80 MORINAGA & CO LTD D13 *J5 6113-263
Highly nutritive gelatinous food mfr. - 76877D/42
- MOTE= 14.02.78 MOSC TEXTILE INST A11 D15 (A14 A91 D17) = SU -798-118
Graft copolymers of cellulose with vinyl pyridine(s) - 64161B/35
- * MULL- 03.04.80 HAMBACH MASCH MULLER D14 S02 *DE 3012-978
Metering device for margarine or ice cream - 75944D/42
- * MULL/ 16.06.77 MULLER K A97 D21 *CH -625-581
Shower additive block - 75807D/42
- MULL/ 00.00.79 MULLER A D16 = DE 3011-968
Prodn. of hulupone(s) from lupulone(s) - 74336D/41
- MURP/ 20.03.81 MURPHY P M C04 D15 = GB 2073-037
Appts. for sepp. solids from slurry - 75695D/41
- NAKA- 29.06.78 NAKAJIMA SEISAKUSHO D15 = J8 1039-924
Device for continuously dewatering waste water sludge - 13872C/08
- NATR 02.05.79 NATIONAL RES DEV CORP B04 D16 = DK 8005-567
Rapid identification of bacteria - 83066C/47
- NEST 23.05.77 SOC PROD NESTLE SA D13 = CA 1108-919
Demineralisation of whey - 89955A/50
- NEST 20.01.78 SOC PROD NESTLE SA D13 = CH -625-399
Coffee extract for preparing non-spurting carbonated beverage - 56550B/31
- NEST 16.03.78 SOC PROD NESTLE SA D16 (D13) = CA 1109-012
Stable plasmid- contg. Lactobacillus species culture prodn. - 70242B/39
- * NEST 31.03.80 SOC PROD NESTLE SA D12 *EP --36-973
Spun fish protein prodn. from alkaline protein soln. - 76042D/42
- * NEZU- 22.02.80 NEDE INST ZUIVELOND D13 *NL 8001-095
Concentrating raw full-cream milk by reverse osmosis - 77113D/42
- * NIDE 07.02.80 NIPPON ELECTRIC KK D15 E17 *J5 6111-085
Oxidising formaldehyde contained in waste water - 76600D/42
- NIEN- 28.04.78 NIPPON ENVIRO KOGYO D15 = J5 4142-665
Liq. filter for treating water etc. - 77044D/42
- * NIEN- 28.04.78 NIPPON ENVIRO KOGYO D15 *J8 1039-927
Liq. filter for treating water etc. - 77044D/42
- * NIIO 12.02.80 NIPPON SANSO D22 J01 *J5 6112-254
Deodorisation of exhaust or waste gases - 76699D/42
- NIPC 04.02.75 NIPPON CHEM IND KK D15 E36 J01 = J8 1040-087
Removal of sulphur cpds from waste liq - 71424X/38
- * NISB 08.02.80 JAPAN TOBACCO & SALT PUB D18 E13 *J5 6113-286
Improving flavour of low nicotine tobacco - 76880D/42
- * NISC 09.02.80 NISSAN CHEM IND KK C03 D22 E19 *J5 6113-706
Antifungal compsn. contg. 2-n-octyl-4 iso:thiazoline-3-one - 76975D/42
- * NISY 14.02.80 NIPPON SYNTH CHEM IND D22 E19 *J5 6113-704
Non-toxic antiseptic compsn. - 76974D/42
- NITL 22.04.77 NITTO ELECTRIC IND KK A88 D15 J01 = J8 1040-605
Semipermeable membrane with good water permeability and salt rejection - 00662B/01
- * NITL 08.02.80 NITTO ELECTRIC IND KK A96 B07 D22 *J5 6110-613
Plaster with pressure-sensitive adhesive layer - 76450D/42
- * NITL 10.03.80 NITTO ELECTRIC IND KK A88 D15 J01 (A26) *EP --37-185
Semipermeable membrane for ultrafiltration - 76132D/42
- * NITY 06.02.80 NITTAN KK D15 K01 *J5 6111-084
Treating fire extinguishing foams contg. waste liq. - 76599D/42
- NMHB 09.11.79 NORDISCH MASCH R BAADER D12 T06 X25 #US 4291-435
Fish processing machine stations control - 31171C/18
- NMHB 07.12.79 NORDISCH MASCH R BAADER D12 #US 4291-436
Cleaning abdominal cavity of beheaded fish - 36582C/21
- * NONB- 29.12.78 NON-BLACK-EARTH AGR D14 *SU -799-713
Fruit calibrating equipment - 77465D/42
- * NONB= 13.03.79 NON-BLACK-EARTH AGRIC D13 *SU -799-710
Dry potato puree prodn. - 77462D/42
- * NORD 31.03.80 NORDEN LAB INC B04 C03 D16 *EP --36-995
Vaccine of modified live pasteurilla multocida of haemolytica - 76051D/42
- NOVU- 08.01.80 NOVUS CORP NV D14 #DK 8000-078
Packaging machine for liquid product - 50283C/29
- NURM/ 11.01.80 NURMI E V B04 C03 D16 = DK 8100-060
Bacterial prepn. for prophylaxis of poultry intestinal disturbance - 60751D/34
- * ODFO= 22.03.79 ODESS FOOD TECH INS D13 *SU -797-909
Press for fruit juice extrn. - 77196D/42
- * OEHL/ 02.04.80 OEHLER S D16 *DE 3012-829
Red wine mash fermentation tank - 75931D/42
- OHIR/ 30.11.77 OHIRA K C03 D13 = J5 4075-375
Condensed feedstuff prepn. - 77034D/42
- * OHIR/ 30.11.77 OHIRA K C03 D13 *J8 1039-610
Condensed feedstuff prepn. - 77034D/42
- OILD- 29.11.77 OIL-DRI CORP AMER C03 D15 (D22) #CA 1109-051
Gypsum granules for absorption on liquids - 63110Y/36
- * OLMA- 09.04.80 KOMB OL & MARGARINE D13 E17 (D23) *GB 2073-232
Prepn. of poly:glycerol ester(s) of poly:ricinoleic fatty acids - 76374D/42
- * OMBR= 27.03.79 OMSK BRANDY-VODKA WKS D16 *SU -798-168
Compsn. for prodn. of bitter liqueur - 77302D/42
- * OMNI- 03.08.79 OMNIPURE INC D15 *US 4292-175
Electro-catalytic sewage treatment unit - 77671D/42
- OREA 12.07.77 L'OREAL SA A96 D21 = CH -625-414
Water-in-oil emulsion used in cosmetic compsns. - 04035B/03
- * OREA 04.03.80 L'OREAL SA D21 *FR 2477-414
Cleaning skin by applying gas foamed aq. suspension - 76228D/42
- * OREA 01.04.80 L'OREAL SA A96 D21 G02 (A14) *BE -888-201
Nail varnish compsn. contg. copolymer - 75734D/42
- OREA 01.04.80 L'OREAL SA A96 D21 G02 (A14) = GB 2073-229
Nail varnish compsn. contg. copolymer - 75734D/42
- * OREA 02.04.80 L'OREAL SA D21 *BE -888-228
Coffee oil for use as solar filtering agent - 75741D/42
- OREA 02.04.80 L'OREAL SA D21 = GB 2073-018
Coffee oil for use as solar filtering agent - 75741D/42
- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8100-053
Mono:clonal antibody reactive with peripheral T cells and thymocytes - 60747D/34

- ORTH 08.01.80 ORTHO PHARM CORP B04 D16 S03 (S05) = DK 8100-054
Mono:clonal antibody reactive with monocytes and granulocytes - 60748D/34
- OSTR/ 17.08.76 OSTREL D13 = US 4292-331
Silaging process for plants for animal feeds - 90092Y/51
- OTTE/ 25.02.80 OTTENSE P K C03 D12 = NL 8001-128
Dehydrating pre-coagulated protein-contg. sludge - 66368D/37
- *PAPC/ 12.01.78 PAPCHENKO A YA D13 *SU -799-711
Juice production from apples - 77463D/42
- *PATP- 27.03.80 PATPAN INC D18 *GB 2073-241
Drying moist skin - 76379D/42
- *PENN 28.03.80 PENNWALT CORP A88 D15 J01 (A26) *EP --36-947
Sulphone polymer ultrafiltration membrane - 76033D/42
- PETE- 12.05.77 PETER G KG D12 = CA 1108-926
Machine fills sausage casing supplied flat wound on reel - 67138A/38
- PETE- 08.03.80 FA PETER E D16 J02 = FR 2477-429
Mixing and stirring device - 70020D/39
- *PETK/ 29.10.80 PETKOV S D13 *CS 8007-316
Salt lick for ruminants - D/42
- PFIZ 02.08.76 PFIZER INC D23 E13 (D13) = CH -625-235
Gamma-pyrones prepn. esp. from furfuryl alcohol cpds. - 00033A/01
- PFIZ 26.11.76 PFIZER INC B02 D16 = CH -625-556
6-APA prepn. by enzymatic deacylation of penicillin cpds. - 38479A/22
- PFIZ 28.12.79 PFIZER INC A97 D15 (A14) = DK 8005-496
Controlling scale deposition from water using fumaric acid polymer - 53664D/30
- *PHIM 20.02.80 PHILIP MORRIS INC D18 E13 (D13 D23) *EP --37-163
3-Heterocyclic-3-hydroxy-alkanoic ester derivs. - 76119D/42
- PIEP/ 20.05.75 PIEPER G A D15 J01 = US 4292-135
Multistage evapn. of salt water - 93632X/50
- PLAC 24.05.73 MAX PLANCK GES WISSENSCH B04 D16 E19 J04 (S03 W02 W05) = DS 2326-537
Chemical transportation of signals - 87449V/51
- *POSP/ 23.12.80 POSPISIL A D22 E13 *CS 8009-237
2-Amino-6-hydroxy-4-oxo-5-carboxybutyl-3,4 di:hydro-pyrimidine(s) - D/42
- *POTA= 01.03.79 POTATO IND RES INST D13 *SU -793-559
Cutter for seed potatoes - 77158D/42
- *POTA= 13.03.79 POTATO FOOD PROD D13 *SU -799-710
Dry potato puree prodn. - 77462D/42
- *POTH/ 14.02.80 POTHOVEN L B04 D21 *NL 8000-921
Hair and scalp treatment compsn. for combating baldness - 77106D/42
- *PROC 13.11.78 PROCTER & GAMBLE CO A97 D25 *US 4292-035
Solid fabric softening compsn. - 77608D/42
- PROC 22.12.78 PROCTER & GAMBLE CO D22 E24 = CA 1108-805
Sanitising flush toilets - 34474C/19
- *PROC 24.03.80 PROCTER & GAMBLE CO B05 D22 E12 (D21 D25) *EP --37-224
Water soluble rare earth metal carboxylate(s) - 76148D/42
- *PROC 31.03.80 PROCTER & GAMBLE CO B05 C01 D13 E12 *EP --37-144
Stable chromium complexes - 76108D/42
- PROC- 15.12.76 PROCESS ENG CO D16 = CH -625-552
Vinegar prodn. in aerated fermentation liquor - 46133A/26
- *PUMA- 06.03.80 PUMA D11 *FR 2477-378
Bakery gravimetric process and installation for dividing dough pieces - 76223D/42
- PURD 20.03.80 PURDUE RESEARCH FOUNDATI D13 = EP --37-180
Prodn. of mature asexual cacao embryos - 77551D/42
- *PURD 20.03.80 PURDUE RESEARCH FOUNDATI D13 *US 4291-498
Prodn. of mature asexual cacao embryos - 77551D/42
- RAPI- 31.05.79 RAPIDEX LTD B04 D16 K08 S03 (S05) = DK 8100-219
Ultra-sensitive enzymatic radioimmunoassay method - 01983D/02
- *REFR= 27.11.78 REFRIG IND RES INST D13 *SU -799-691
Determin. of life of picked fruit - 77452D/42
- RESE 23.05.79 RESEARCH CORP B04 C03 D16 = DK 8100-260
Vaccine contg. genetically attenuated bacteria - 90100C/50
- RHON 10.02.77 RHONE-POULENC INDUSTRIES D13 F01 (D12) = CA 1108-923
Meat-like, spun protein filaments - 62885A/35
- *RHON 21.03.80 RHONE-POULENC INDUSTRIES D13 *EP --37-300
Compsn. for preparing instant desserts - 76177D/42
- RHWL 21.05.77 RH-WESTF ELEKTRIZIT AG D15 K06 = GB 1600-211
Processing nuclear power station evaporator concentrates - 86394A/48
- RICH 22.07.75 RICHARDSON-MERRELL INC B02 C02 D22 = CH -625-529
Antibacterial cephalosporanic acid derivs. - 92451X/50
- *RIEG/ 03.04.80 RIEGLER H D11 *DE 3013-003
Easily cut, non-crumblly six-grain bread - 75948D/42
- *RODI= 15.02.78 ROST ANTIPLAGUE RES D16 *SU -738-398
Culture medium for plague microbes - 77143D/42
- ROHG 27.03.80 ROHM GMBH D15 J01 (D18) = BR 8101-740
Sepn. of soluble substances from carrier liquids - 73994D/41
- ROHM 30.08.77 ROHM & HAAS CO A88 D15 J01 (A14 A91) = GB 1600-314
High flux cation-rejecting membrane for water deionisation - 85961A/47
- ROUS 25.01.80 ROUSSEL UCLAF B05 C03 D13 (D21 D23 D24 D25) = J5 6113-737
Cyclopropane-carboxylic acid insecticides, acaricides, perfumes etc. - 59044D/33
- *RUM/ 24.02.81 RUMLV D15 E36 *CS 8101-324
Thermal elimination of waste, nitrate and nitrite tempering salts - D/42
- *RUM/ 24.02.81 RUMLV D15 E36 *CS 8101-325
Waste nitrate and nitrite tempering salts elimination - D/42
- RYOT- 21.08.78 RYOTO KK D13 = J5 5029-933
Frying material obtd. from gelatin - 77035D/42
- *RYOT- 21.08.78 RYOTO KK D13 *J8 1039-611
Frying material obtd. from gelatin - 77035D/42
- *SANE 14.02.80 SAN EI CHEM IND KK A97 D13 *J5 6113-260
Stabilising protein colloid - 76876D/42
- *SANE 14.02.80 SAN EI CHEM IND KK D13 E19 *J5 6113-285
Non-toxic preservative soln. - 76879D/42
- *SANY 08.04.80 SANKYO KK B05 D16 *GB 2073-199
Carboxylic acids, salts and ester(s) of ML-236 and MB-530 - 76364D/42
- *SARO/ 04.03.81 SAROUN Z D16 *CS 8101-541
Tubular heating body fitted in head - D/42
- *SARO/ 04.03.81 SAROUN Z D16 *CS 8101-542
Pulp and slurry pan - D/42
- SCHD 23.01.80 SCHERING AG B01 D16 = J5 6110-699
Gestagenic 1-hydroxy-1-alpha-ethynyl-1-methyl 4,15-oestradien-3-one - 57124D/32
- *SCHI- 20.03.80 SCHINDLER & WAGNER D14 *DE 3010-603
Height-adjusting for slicing machine - 75858D/42
- SCOL 03.05.77 SCHOLL MFG CO D15 = GB 1600-180
Purificn. of polluted industrial effluent esp. from dye works - 65334A/37
- SEIS 23.02.77 SEISAN KAIHATSU KAGAKU B04 D16 = J5 3104-785
Laminated enzyme reactor - 77041D/42
- *SEIS 23.02.77 SEISAN KAIHATSU KAGAKU B04 D16 *J8 1039-875
Laminated enzyme reactor - 77041D/42
- SERT- 22.11.76 SERTO G B05 C03 D21 = CH -625-121
Acid, insect-removing shampoos - 36655A/21
- *SHIF 13.02.80 SHINMEIWA IND KK D22 J01 *J5 6113-326
Garbage treatment appts. - 76907D/42
- *SHIJ 07.02.80 SHIKOKU CHEM IND KK D22 E13 (E12) *J5 6112-253
Dissolution of solid chlorine-based disinfectant or sterilising agent - 76698D/42
- SHIO 06.04.79 SHIONOGI KK B02 C02 D16 = US 4292-241
Antibiotic PA-31088-IV - 77431C/44
- *SHIZ- 21.01.78 SHIZUOKA-KEN D15 J01 *J8 1040-616
Fine oil droplet aggregating appts. for water oil mixt. - 77094D/42
- *SILI= 01.03.78 SIBE LIVESTOCK INST D15 *SU -798-358
Centrifugal pump for fibrous suspensions, e.g. farmyard manure - 77369D/42
- *SINN/ 02.03.78 SINNREICH M D22 *US 4291-687
Intestine supporting inflatable surgical packing - 77567D/42
- SLAG- 27.06.79 SLAGTERIREGION SYD D12 = DK 8100-660
Scraping pig carcass by rotating brushes - 09709D/06
- *SLAG- 11.01.80 SLAGTERIERNES FORSK D12 *DK 8000-130
Handling plant for slaughtered animal carcasses - D/42
- SOLL- 03.06.77 SOLLICH SPEZIAL KG D13 = GB 1600-192
Chocolate paste treatment tool - 89900A/50
- *SOLL- 27.03.80 SOLLICH & CO GMBH K D13 *GB 2073-087
Appts. forming mouldable confection strands - 76332D/42
- SOLL/ 28.04.78 SOLLICH H D13 #GB 1600-464
Sugar paste thread extruder - 77563B/43
- SORA- 06.03.80 SORADEC SOC RECH D17 E17 J03 X25 = FR 2477-578
Electrochemical redn. of acid solns. of sugars - 70426D/39
- SPIE- 28.08.79 SPIE-BATIGNOLLES D15 J01 X15 #US 4292-136
Desalination of sea-water etc. by heat of solar radiation - 33200C/19
- *SSCM- 29.02.80 SSCM SOC STEPH CONS D15 E17 *FR 2477-363
Continuous digester forming methane from liq. manure - 76219D/42
- *SSCM- 29.02.80 SSCM SOC STEPH CONS D15 E17 *FR 2477-364
Continuous digester forming methane from liq. manure - 76220D/42
- *STAD 08.12.76 STANDARD OIL CO (IND) D15 *US 4292-176
Activated sludge treatment of waste water - 77672D/42
- STAH/ 27.03.79 STAHLER T D15 = DD -149-658
Sewage aeration basin - 86444C/49
- STAU 17.03.75 STAUFFER CHEMICAL CO D11 = CH -625-398
High protein baking auxiliaries e.g. for bread - 76097X/41
- STBR 19.11.79 STANDARD BRANDS INC A97 D13 = US 4292-333
Low-fat liq. spreads - 40215D/23
- *STEC- 10.03.80 STEC SOC TECHN ENTR D15 J01 *FR 2477-427
Filtration of liq. contg. solids in suspension - 76231D/42
- *STEM/ 28.03.80 STEMMLER M A97 D12 E17 (D23) *EP --37-086
Protective pigmented meat-coating compsns. - 76085D/42
- STER 15.09.77 STERLING DRUG INC D22 J01 (D15) = CH -625-132
Purifying odorous waste gases, esp. from water treatment - 20017B/11

STOL-

- STOL- 20.05.75 STOLLE RES & DEV B04 D16 (D21) #CH -625-415
Anticaries agent contg. cows milk immunoglobulin - 94456X/51
- STOR- 29.03.79 STORCK A KG A97 D13 = US 4292-337
Non-cariogenic confectionery mass e.g. for bonbon prodn. - 71779C/41
- STRE- 16.03.81 STRATHCLYDE REG COU D22 S02 = GB 2073-033
Appts. for controlled discharge of liquid into second liq. - 72158D/40
- *STRK 02.04.80 STORK DUKE BV D12 *EP --37-160
Thickening offal-fat mixt. - 76117D/42
- SUES/ 19.03.80 SUESS H R D21 = EP --37-011
Skin-care and -protective compsns. e.g. ointments - 72000D/40
- SUGI/ 17.08.78 SUGIMOTO T D15 J01 = J8 1040-618
Continuous liq. filtration unit esp. for treating industrial effluent - 24727C/14
- SULZ 04.04.77 GEBRUDER SULZER AG D15 E36 = CH -625-492
Processing water using ozone in basic conditions - 74614A/42
- SUMO 08.02.80 SUMITOMO CHEMICAL KK B05 C03 D23 E14 = J5 6113-727
Aryl-acetaldehyde prodn. from arylmethyl halide - 64413D/36
- *SUNZ 14.02.80 SUN-STAR HAMIGAKI K A96 D21 *J5 6113-709
Dentifrice compsn. contg. sodium alkyl sulphate(s) - 76978D/42
- SUSO 28.01.74 SUOMEN SOKERIOY D17 E13 = DS 2502-558
Crystallisation of fructose from aq. soln. - 52764W/32
- SWAN/ 18.03.69 SWANSON EC D13 = DS 2012-675
Recovery of proteins from their aq soln in - 69670R/38
- SWIF 28.03.77 SWIFT & CO D12 = US 4291-434
Poultry tendon extraction system - 73066A/41
- SWIL 02.06.77 SIG SCHWEIZERISCHE D11 = GB 1600-167
Biscuit counting stacker - 91700A/51
- *TAIY- 22.11.77 TAIYO KAKEN CO LTD D22 *US 4292-285
Removal of basic or offensive odour cpds. from gases - 77728D/42
- *TAIY- 08.02.80 TAIYO KORYO KK A96 D21 E17 *J5 6111-034
Water-in-oil emulsifier used in cream prods. - 76584D/42
- TAKA- 04.03.80 TAKARA SHUZO CO LTD D16 J04 = GB 2073-243
Multistage continuous reactor - 74018D/41
- TAKE 02.02.79 TAKEDA CHEMICAL IND KK B04 D16 = US 4292-309
Antibiotics C-14482 B1, B2 and B3 - 59850C/34
- *TAKE 31.03.80 TAKEDA YAKUHIN KOGY B04 D16 S03 *EP --37-110
Hormone enzyme- immunoassay - 76091D/42
- TAKE/ 18.06.79 TAKEKOSHIY D13 = J5 6015-657
Instant chinese noodles prepn. - 77036D/42
- *TAKE/ 18.06.79 TAKEKOSHIY D13 *J8 1039-615
Instant chinese noodles prepn. - 77036D/42
- TAKF 19.04.73 TAKI FERTILIZER MFG KK D15 E33 = SU -799-638
Stable basic aluminium salt soln. - 64526V/37
- *TANA 07.02.80 TANABE SEIYAKU KK D13 *J5 6113-284
Antioxidant for food, cosmetics, etc. - 76878D/42
- TATL 06.02.79 TALRES DEV NA NV B05 D13 = US 4292-336
Sweetening compsn. contg. peptide sweetener - 60901C/35
- *TEEP 02.04.80 TEEPAK INC D12 *EP --37-228
Shirring sausage casings by typically 6 radial wheels - 76150D/42
- *TEKH= 12.10.78 TEKHRYBPROM D12 *SU -799-698
Equipment to open up fish gills with fish firmly held - 77454D/42
- TERU- 04.06.79 TERUMO CORP D16 = DK 8100-458
Microorganism culturing tube - 90583C/51
- THOM 29.02.80 THOMAE K GMBH B02 C02 D22 E13 (D13) = NO 8100-678
2-Thiazolyl-2-pyrimidinyl:ureido-acetamido cephalosporin derivs. - 68211D/38
- TOKR- 04.03.80 TOKYO RIKAKIKAI CO D16 J04 = GB 2073-243
Multistage continuous reactor - 74018D/41
- TOKT- 02.12.74 TOKYO TOKIN KK D15 J01 = J5 1064-469
Concentration of waste soln. drained from plating bath - 77088D/42
- *TOKT- 02.12.74 TOKYO TOKIN KK D15 J01 *J8 1040-601
Concentration of waste soln. drained from plating bath - 77088D/42
- *TOKU 05.02.80 TOKUYAMA SODA KK A91 D15 J01 *J5 6111-052
Purifying ion exchange resin - 76593D/42
- *TOKU 08.02.80 TOKUYAMA SODA KK A96 D21 *J5 6110-606
Non-shrinking dental cement with good adhesion to teeth - 76444D/42
- *TORO- 05.02.80 TOYO ROSHI KK A89 D15 E36 J04 *J5 6110-050
Phosphate ion in water microanalysis - 76422D/42
- *TOTA- 13.03.80 TOTAL KK D12 *EP --36-903
Cutting sausage links in intestine casings - 76022D/42
- *TSUB- 14.02.80 TSUBAKIMOTO KOGYO K D15 *J5 6113-307
Device for removing particulate solids etc. from e.g. dirty water - 76893D/42
- UBEI 07.02.79 UBE INDUSTRIES KK D15 = US 4291-549
Injecting one liq. into another liq. - 59029C/34
- *UCOA= 06.01.78 UKR COAL CHEM RES D15 E14 *SU -798-194
Electrochemical prodn. of hydrogen xanthan - 77328D/42
- *UGEN= 26.02.79 UKR GENERAL SERVICE A97 D18 *SU -798-177
Aq. compsn. for greasing fur pelts - 77311D/42
- UGIN 01.09.76 PROD CHIM UGINE KUHLMANN D25 E19 F06 = CH -625-205
Alpha-acyloxy-(N,N')-di-acyl:malonamide cpds. - 15882A/09
- UGIN 14.12.77 PROD CHIM UGINE KUHLMANN A91 D15 E36 J01 = EP G002-636
Iodine removal from gaseous mixts. or aq. solns. - 47541B/26
- *ULTR- 29.03.80 ULTRA X GMBH D15 S03 *DE 3012-294
Automatic sewage sampler - 75882D/42
- *UMEA= 19.12.77 UKR MEAT DAIRY IND D12 *SU -799-701
Continuous freezing of meat carcasses - 77456D/42
- UNIC 31.03.77 UNION CARBIDE CORP A97 D12 = GB 1600-105
Neutralised aq. liq. smoke mixt. - 73150A/41
- UNIJ 10.03.80 UNICLER SA B04 D16 = FR 2477-416
Hasenula yeasts esp. H anomala used as medicaments - 70234D/39
- UNIL 06.01.71 LEVER BROTHERS CO D13 = US 4292-338
Edible fat - 47953T/30
- UNIL 08.04.71 UNILEVER NV D13 E16 = DS 2265-549
Cheese products - 70323T/44
- UNIL 20.08.76 LEVER BROTHERS CO D25 E17 = US 4292-192
Toilet soap contg. opt. acetylated citric acid ester(s) - 14001A/08
- UNIL 06.05.77 UNILEVER NV D25 E12 = GB 1600-018
Isotropic aq. liq. compsn. for washing textiles - 82553A/46
- UNIL 03.10.78 UNILEVER PLC A97 D25 E34 = EP G009-952
Particulate alkaline detergent contg. tri:poly:phosphate - 27738C/16
- *UNIL 27.03.80 UNILEVER NV D25 E19 (E37) *EP --37-146
Solid detergent bleach compsn. effective at all washing temps. - 76109D/42
- *UNIX 05.03.80 UNISEARCH LTD D16 E17 *FR 2477-571
Fermentative ethanol prodn. using Zymomonas mobilis - 76250D/42
- *UNIX 05.03.80 UNISEARCH LTD D16 E17 *FR 2477-572
Ethanol prodn. by fermentation of Zymomonas mobilis - 76251D/42
- *UNMI 15.05.78 UNIV OF MICHIGAN A96 D21 (A12 A14) *US 4292-029
Treatment of teeth with polymerisable compsns. - 77606D/42
- *UNVO 18.08.80 UOP INC A96 D17 (D16) *US 4292-199
Prepn. of support matrix for immobilised enzymes - 77688D/42
- USAT 11.09.79 US DEPT OF ENERGY D16 E17 = US 4292-406
Thermoanaerobacter ethanolicus and clostridium thermocellum cultures - 53349C/31
- USAT 11.09.79 US DEPT OF ENERGY D16 E17 = US 4292-407
Thermoanaerobacter ethanolicus cultures - 53348C/31
- UVER- 27.03.80 UNIVL GES ERICHTUN D15 J01 (D18) = BR 8101-740
Sepn. of soluble substances from carrier liquids - 73994D/41
- UYFL- 19.05.77 UNIV FLORIDA D22 L01 M13 = DS 2818-630
Metal-coated biologically active glass - 78321A/44
- UYRO- 07.01.80 UNIV OF ROCHESTER B04 D16 = J5 6113-293
Recombination bacteriophage for heterologous cloning of DNA - 55411D/31
- *VBER- 06.06.80 MIJ VAN BERKELS PAT D11 *BE -889-120
Bread slicing machine with motor driven load feed - 75774D/42
- *VIER= 19.03.79 VIERUL WINE-MAKING AS D16 *SU -798-169
Low acidity wine stock clarification - 77303D/42
- VITZ 11.12.76 VITA ZAHNFAB RAUTER D21 L02 = CH -625-610
Muffle furnace for baking dental ceramics - 45951A/26
- *VODO= 28.12.79 VODOKANAL WATER-CAN D15 X25 *SE 8008-892
Waste water distribution into sedimentation basins - 77128D/42
- *VWIT/ 01.04.80 VON WITZLEBEN J W D12 *DE 3012-622
Laminated sausage case - 75909D/42
- *WABA- 03.04.80 WABAG KRETZSCHMAR D15 J01 *DE 3013-033
Cleansing system for water treatment filter - 75952D/42
- WACK 10.01.80 WACKER CHEMIE GMBH A26 D21 E11 G02 (A82 A96) = US 4292-434
Silicon cpd. addn. to unsatd. aliphatic cpd. - 53546D/30
- WAFI- 31.07.74 WAFILIN BV D13 = SU -799-639
Sepg. substances coagulated by heat, from aq. media - 13391X/08
- WAGB 07.07.75 WAAGNER BIRO AG D15 = CH -625-133
Contacting gases with liquids for effluent treatment - 09665Y/06
- *WAKA 09.02.80 WAKAMOTO PHARM KK B04 D16 *J5 6112-902
Protein polysaccharide WAK - 76797D/42
- *WAKA/ 25.05.81 WAKABAYASHIT B03 D13 E13 *BR 8103-228
Stevioside extracts purificn. - D/42
- *WATE= 06.01.78 WATER SAFETY RES D15 E14 *SU -798-194
Electrochemical prodn. of hydrogen xanthan - 77328D/42
- *WELA 02.04.80 WELLA AG D21 E16 *DE 3012-767
Cosmetic anti-dandruff compsn. e.g. shampoo - 75924D/42
- WELK- 28.03.80 WELKER K KG D11 = DE 3012-043
Automatic final baking oven with pivoting gondola(s) - 74295D/41
- *WESE 28.05.80 WESTINGHOUSE ELEC CORP D16 E17 *US 4291-757
Heat exchanger system for e.g. ethyl alcohol plant - 77581D/42
- WESS 04.03.80 WESTFALIA SEPARATOR AG D14 (D16) = FR 2477-383
Fruit flesh and skin separator - 68123D/38
- WHAT- 07.02.77 WHATMAN REEVE ANGEL A88 D15 J01 = GB 1600-371
Prefilter for use with oil-water separators - 59111A/33
- WHEE/ 07.08.79 WHEELER R G D13 #CA 1108-927
Pressure assembly for press has friction latching plate - 11469C/07
- WIDM- 27.02.80 WIDMER & ERNST AG D13 = NL 8005-643
Shelling nuts esp. cashew nuts by cutting longitudinal grooves - 66501D/37

- * WINK 29.03.80 FR WINKLER SPEZZ KG D11 *DE 3012-289
Baguette transfer machine - 75881D/42
- * WINK 05.04.80 FR WINKLER SPEZI KG D11 *DE 3013-330
Baking vapours waste heat recovery - 75984D/42

- YAKI/ 08.05.78 YAKIMENKO L M C03 D13 #CA 1108-921
Feed additive for animals and poultry - 69990B/39
- * YAMA 08.02.80 YAMANOUCHI PHARM KK A96 B07 D22 *J5 6110-612
Readily disintegrable and absorbed compression formulation -
76449D/42
- * YAMA- 28.03.80 YAMATO SETSUBI KOJI D15 *GB 2073-165
Submerged filter bed for liquid waste treatment - 76346D/42
- YAMS 00.00.73 YAMASA SHOYU KK B04 D16 = DS 2365-894
Polynucleotides enzymatic prodn. - 74108X/40
- * YAWA 14.02.80 NIPPON STEEL CORP D15 J01 M21 *J5 6113-392
Treating emulsified-oil-contg. effluent - 76929D/42
- * YEDA 24.03.80 YEDA RES & DEV CO LTD B04 C03 D16 *GB 2073-245
Bovine growth hormone from new strains of E coli - 76381D/42
- * YERO/ 14.03.80 YERO J L F A96 B04 D16 S03 *DD -149-710
Reactivation of appts. used in immunological analyses - 75841D/42

- * ZEIS/ 05.03.80 ZEISER M A32 D21 (A96) *DE 3008-431
Metal pins inserted into plastics baseplate esp. for dental patterns -
75856D/42
- ZEML/ 30.09.77 ZEMLYAKOVA V P B04 C03 D16 = US 4292-307
Animal and poultry anti-clostridium vaccine - 54714C/31
- ZIMM- 27.08.79 ZIMMER USA INC A83 D22 F07 (A86 A96) = US 4292-263
Protective garment with moulded-on cushions - 65660A/37

FR 2363-541 A22
BR 7705-827 A28
US 4150-001 B20

US	4159-991	B29
GB	1563-634	C13
CA	1090-370	C51
CH	-625-205	D42

19762-A	DE	
DS	2700-568	A11
BE	-862-716	A28
NL	7800-173	A30
SE	7800-156	A33
IS	3091-152	A37

FR 2376-631 A41
AT 7709-163 C49
GB 1598-253 D38
US 4292-339 D42

26985-A ABD
BE -861-400 A15
DE 2753-214 A24

NL	7713-471	A25
SE	7713-665	A29
J5	3077-296	A32
FR	2372-849	A36
ZA	7706-986	A42
BR	7708-027	B04
US	4134-863	B04
GB	1569-481	C25

IL -53-538 D02
CA 1109-052 D42
CH -625-136 D42

30282-A D
BE -862-070 A17
NL 7713-853 A27
DE 2755-083 A27
BR 7708-386 A32

DK	7705-655	A34
FR	2373-978	A38
PT	--67-395	B07
ZA	7706-823	B28
GB	1593-166	D29
CH	-625-106	D42

3655-A		BCD
BE	-861-000	A21
DE	2752-140	A22
NL	7712-875	A23
SE	7713-126	A27
NO	7703-986	A28
DK	7705-175	A30
FR	2371-190	A34
ZA	7706-910	A42
PT	--67-304	A49

J5	4119-035	B43
AT	7708-348	C44
CA	1096-771	D14
GB	1593-601	D30
CH	-625-121	D42
8479-A	BD	
BE	-861-207	A22
DE	2762-400	A22

J5	4119-035	B43
AT	7708-348	C44
CA	1096-771	D14
GB	1593-601	D30
CH	-625-121	D42
8479-A	BD	
BE	-861-207	A22
DE	2762-400	A22

47728-A

47728-A DJ BE -862-370 A27 NL 7714-401 A29 DE 2659-546 A29 SE 7714-822 A32 HU 0002-367 A36 FI 7703-941 A38 FR 2375-901 A40 J5 3114-783 A45 ZA 7707-184 A46 DD -133-295 B07 AT 7709-406 B40 GB 1559-920 C05 CA 1106-686 D39 CH -625-332 D42	67138-A D BE -867-027 A38 DE 2721-392 A47 NL 7805-101 A48 DK 7802-081 B01 NO 7801-634 B02 BR 7803-021 B03 FR 2390-336 B07 SE 7805-402 B15 DD -135-886 B32 US 4276-815 D30 CA 1108-926 D42	74614-A DE DE 2715-543 A42 FR 2386-488 B03 GB 1556-005 B46 CH -625-492 D42	89704-A DF BE -869-709 A50 DS 2743-915 B06 NL 7807-950 B09 SE 7808-510 B12 DK 7803-537 B13 NO 7802-738 B14 FR 2399-808 B20 BR 7805-119 B21 PT --68-402 B23 ZA 7804-446 B34 DD -137-663 B49 CS 7805-242 D01 GB 1584-868 D08 CA 1101-298 D24 US 4274-428 D28 US 4285-650 D37 CA 1106-722 D39 AT 7706-706 D40 US 4289-725 D40 CH -625-403 D42	09987-B DEF BE -869-536 B06 DE 2735-816 B08 NL 7808-327 B09 GB 2002-831 B09 FR 2400-075 B20 DS 2735-816 B26 US 4195-974 C15 CH -621-904 D16 CH -621-904 D42	EP G002-554 D42 49277-B D DE 2757-742 B27 EP --2-769 B29 DS 2757-742 B43 AT 7809-165 C41 EP G002-769 D42	11469-C D GB 1561-141 C07 US 4257-321 D15+ CA 1108-927 D42+	39940-C BD US 4203-966 C22+ US 4292-306 D42	41551-C D CA 1078-319 C24 US 4206-880 C25+ GB 1600-175 D42+	41752-C BD DE 2946-898 C24 J5 5071-496 C28 GB 2037-295 C28 FR 2442-269 C37 DS 2946-898 D42	45656-C DJ J5 5064-811 C26 J8 1040-610 D42	46644-C DE EP --12-436 C27 US 4292-447 D42	49829-C DH BE -880-910 C29 WP 8001-407 C30 US 4213-407 C32 SE 8005-856 C45 NL 7920-195 C46 EP --20-735 D03 GB 2051-328 D03 DE 2953-439 D30 BR 7908-905 D35 DK 8003-625 D42	50283-C D EP --13-132 C29 DK 8000-078 D42+	51771-C D DE 2856-277 C30 EP --13-755 C33 J5 5090-593 C34 US 4292-088 D42	53348-C DE BE -882-161 C31 BR 8001-310 D16 ZA 8000-408 D17 DE 2944-041 D17 FR 2464-993 D23 J5 6042-581 D23 SE 7909-323 D28+ US 4292-407 D42	53349-C DE BE -882-162 C31 ZA 7907-047 D05 NL 8000-338 D13 BR 8001-309 D16 DE 2944-042 D17 SE 7909-324 D18 FR 2464-992 D23 J5 6042-582 D23 DK 8001-608 D31 US 4292-406 D42	54714-C BCD SU -627-610 C31 SU -627-611 C31 SU -627-612 C31 US 4292-307 D42	59029-C D DE 3000-883 C34 GB 2041-229 C37 J5 5104-640 C39 SE 7910-519 C39 FR 2448-383 C48 US 4291-549 D42	59850-C BD NL 8000-627 C34 J5 5104-297 C38 GB 2042-502 C39 FR 2447-932 C47 DE 3003-359 C47 US 4292-309 D42	60901-C BD EP --14-554 C35 GB 2041-209 C37+ DK 8000-518 C40 J5 5111-770 C41 US 4292-336 D42
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64527-C ACDE EP --14-884 C37+ DE 2905-779 C37 J5 5127-186 C46+ DE 2936-153 D15 US 4292-043 D42+	86329-C D WP 8002-371 C48 EP --19-602 C49 SE 7903-856 D02 NO 8003-866 D12 BR 8008-655 D16 DK 8100-003 D42	05896-D D DE 2929-496 D05 PT --70-617 C28 EP --22-901 D06 NO 8002-167 D11 ZA 8000-497 D12 DK 8000-441 D13 FI 8000-238 D17 J5 6055-138 D27 DD -149-603 D42	36564-D BD DE 3041-224 D21+ GB 2063-873 D24+ NL 8006-026 D25+ FR 2468-646 D28+ J5 6068-394 D30 J5 6068-395 D30 J5 6113-296 D42	51688-D D BE -887-758 D29 WP 8102-506 D40 FR 2477-376 D42	60881-D DE GB 2068-730 D34 J5 6110-609 D42	66283-D DE EP --34-650 D37 NO 8100-197 D40 J5 6113-720 D42	73955-D DE DE 3011-549 D41 EP --37-009 D42
65987-C BD BE -883-161 C38 DE 3011-334 C47 NL 8002-658 C48 GB 2048-711 C51 NO 8001-248 D01 SE 8003-488 D02 FI 8001-413 D05 FR 2456-138 D09 US 4292-409 D42	86444-C D DE 2911-975 C49 NO 8000-886 C46 PT --71-009 C47 DK 8001-223 C47 EP --17-064 C49 BR 8001-806 C49 FI 8000-919 D01 ZA 8001-805 D21 US 4284-503 D36 DD -149-658 D42	06110-D ABD EP --22-434 D05 WP 8100-113 D06 DK 8100-636 D42	40215-D AD BE -886-241 D23+ WP 8101-353 D24+ US 4273-790 D27 NL 8006-316 D27+ SE 8007-997 D28+ GB 2066-641 D29+ FR 2469-876 D30+ FI 8003-590 D34+ DE 3043-656 D35+ DK 8004-929 D38 US 4292-333 D42	51924-D BCDE EP --31-584 D29 J5 6099-452 D39 DK 8005-479 D42	60922-D DM GB 2068-927 D34 FR 2475-522 D38 J5 6113-397 D42	66364-D AD EP --34-861 D37 NL 8001-029 D42	73985-D D DE 3011-807 D41 EP --37-017 D42
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72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42
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72110-C D FR 2444-709 C41 SE 7813-155 C32 GB 2044-071 C42 US 4292-335 D42	90464-C DE DE 3020-649 C51+ J5 5160-096 D08 FR 2457-891 D12+ US 4273-684 D27+ J5 6112-997 D42	27084-D D US 4257-897 D15 EP --27-998 D20 J5 6111-090 D42	47873-D ADEG BE -887-630 D27 GB 2070-011 D36 FR 2476-642 D40 SE 8009-107 D41 NL 8006-673 D42	55418-D BD EP --32-270 D31 NL 8000-173 D34 PT --72-329 D37 FI 8100-054 D39 DK 8100-046 D42	62644-D BDE EP --34-034 D35 J5 6110-617 D42	68299-D DE EP --35-364 D38 BR 8101-196 D39 NO 8100-669 D42	74295-D D GB 2072-479 D41 DE 3012-043 D42</

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ABSTRACTS

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FOOD
DETERGENTS

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COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	5 OCT - 11 OCT 81	888,264 - 888,350
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BRAZIL	6 OCT 81	8,001,970 - 8,104,780
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-Reissues	6 OCT 81	Re30,757 - Re30,764
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*Includes numbered Basics from Weeks D34,D35

**Includes numbered Basics from Week D37

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

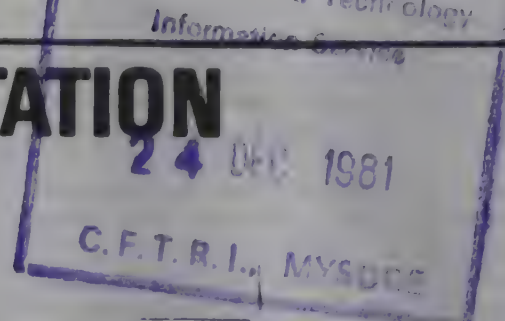
See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code		Main CPI Class for Section		Patent No	
Patentee Name		Latest Priority		Earliest Priority	
Other Classes		Earliest Disclosure Basic Patent		Accession No	
Publication Date				IPC	
MEDA-	A89	69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)					
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)					
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26					

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING



POST/ ★ D11 77906 D/43 ★ DE 3013-476
Cream applicator for wafers - with suction chest under belt conveyor for constant speed and alignment

POSTADE KH 08.04.80-DE-013476

(15.10.81) A23g-03/20

08.04.80 as 013476 (39KB)

Cream and other top coatings are applied to wafers by a machine, including an endless belt conveyor with a magazine for the wafers at one end and a cream applicator with hopper and roll in the middle. The wafers reach the applicator roll in a steady alignment and at a steady travelling speed, at least for a predetermined distance of twice their length.

This reduces the amt. of defective prods. by uneven application of the creamy layer and saves cream because the cream thickness need not make any allowances of unevenness. If suction is used for the alignment, the cream surplus is removed from the belt. (46pp)

POST- ★ D11 77914 D/43 ★ DE 3013-590
Dough kneading machine - with separable trough locked to revolving drive head

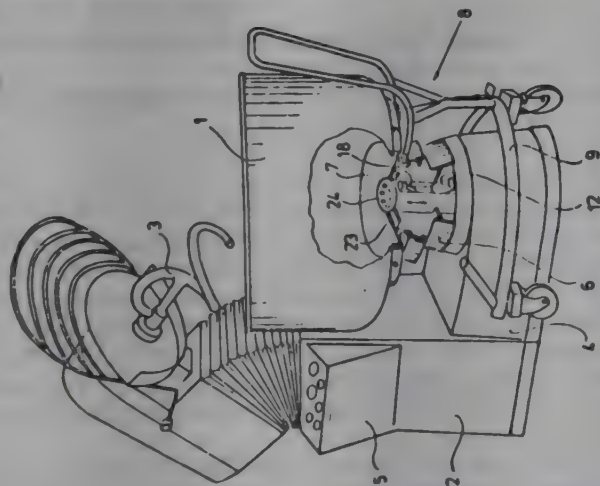
POSTMEIER K MASCH G 09.04.80-DE-013590

(15.10.81) A21c-01/02 B01f-09/10

09.04.80 as 013590 (39DH)

Kneading machine for bakeries has a base for a revolving trough which can be sepd. from the machine and moved about by an independent wheeled tubular trolley. The drive head of the base has a vertical axis of rotation and is equipped with a power operated lifting element. It also carries locking elements for the trough base which are disengaged by the lifting action.

The design facilitates the portability of the trough and results in the smallest possible weight for the machine, the trough and the lifting facilities. (19pp Dwg.No.2)



HABE/ D11 75986 D/42 = EP --37-454
Bread and pastry mfr. - from grain flour mixed with green flour contg. ground pasture grass, clover and/or lucern

HABERL P 05.04.80-DE-013348

(14.10.81) *DE3013-348 A21d-02/36 + A23l-01/16

05.02.81 as 100800 (200BZ) (G) No-Citns. E(AT BE CH DE FR GB LT NL SE)

Green flour of ground pasture- and meadow grasses, clover- and/or lucerne types (medicago) is added to an initial mixt. for preparing baker's wares, esp. bread, biscuits, cookies, long-life bread, etc. The initial mixt., contg. a grain fraction, -grist or -flour, esp. rye- and/or wheat flour, water, yeast, NaCl and opt. further additives, is baked after raising the kneaded dough.

The green flour plants, esp. lucerne, have a high content of proteins, hemi-celluloses, pentosans and minerals. A high water absorption and dough yield can be achieved and the dough ripens quickly. The increased content of Ca, Mg, Na, K, Fe and Co and of lysine and cystine increases the nutritional value of the bread and also improves bread taste and aroma. (18pp)

RHON ★ D11 78111 D/48 ★ EP --37-758
Powdered compsn. contg. sucro-glyceride, caseinate and malto:dextrin - useful in prodn. of cereal based cooked goods, e.g. cakes and biscuits

RHONE-POULENC INDUSTRIES 24.03.80-FR-006463

(14.10.81) A21d-02/16

13.03.81 as 400384 (1251KB) (F) FR1483176 FR1372646 US3060030 FR2067391 E(AT BE CH DE GB IT LI LU NL SE)

Powdered compsn. consists of sucroglycerides (I; i.e. the mixt. of prods. obtd. by reacting sucrose with triglycerides), pref. at 40-80%; a caseinate (II), pref. at 10-50%, and a maltodextrin (III), pref. at 20-60%. Pref. (I) are derived from palm oil, tallow, lard or copra oil, and (II) is esp. sodium caseinate. The compsns. are made (a) by drying an aq. emulsion of the three components or (b) by mixing as powders (I) supported on (II) with (III), or (I) supported on (III) with (II).

The compsns. are useful as additives in cooking of cereal-based prods., e.g. cake or biscuit mfr., esp. being used at 0.3-2 wt.% on the flour. The emulsifying effects of (I) are enhanced by (II) and (III), giving doughs of improved homogeneity and easier workability; reduced energy demands for kneading; slowing down of the staling process, and increased expansion of prods. (30pp)

JOUR/ ★ D11 78130 D/48 ★ FR 2477-838
Method of packaging stacked pancakes interleaved with sepg. papers - each covering only slightly more than half pancake area

JOURNO C 17.03.80-FR-005890

(18.09.81) A21d-08/02 A21d-13/08

17.03.80 as 005890 (448HM)

In method of packaging stacked pancakes and similar circular sheet prods of edible paste. Sheets of sepg paper are interleaved between the pancakes ie. the stack consists of alternate pancakes and paper sheets.

Each sepg sheet is now a segment of a circle of the same dia as the pancake and covers an area slightly greater than half the circle. Alternate sepg sheets extend in diametrically opposite directions from a median plane of overlap in plant view.

A saving of 47 per cent of sepg paper is claimed. (5pp)

SCHM/ D11 35000 A/20 = GB 1600-551
Waffle filled with honey and corresp. honey depositor - sandwiches honey portions in leakproof cavities between sheets of battery

SCHMIDT M 18.01.77-DE-701765

(21.10.81) *BE-862-706 A21d-13/08 A23l-01/34

13.01.78 as 001365 (006TM)

Wafer biscuit contg honey comprises top and bottom wafers joined by edible adhesive, one or both wafers having a honey chamber pref in the form of a cup-like recess.

Specifically the wafers are impervious to honey, or lined with impervious material, or the honey is pre-packed in a sachet. Pref honey extrusion appts includes press fluid mechanisms for delivering honey in rod-like form and for cutting off individual portions from the rod. (6pp)

DIEP- D11 51657 A/29 = GB 1600-783
Double-screw extruder outlet for paste strips - has diffuser grid and pressure equalising chamber

DIEPAL 23.01.78-FR-002457 (16.03.77-FR-008596)

P71 + P42 P51 (21.10.81) *BE-864-755 A21c-03/04 B29f-03/04

08.03.78 as 009256 (006TM)

Extrusion appts specifically for foodstuff dough comprises an extruder nozzle spaced from a diffuser plate by a press equalisation chamber, the plate being between the chamber and the tip of an extruder screw.

The plate has a flat side facing the chamber, and a conical side facing the screw tip and of the same taper angle as is the tip. Ducts in the plate are arrayed as two opposed circular arcs of equal radii, symmetrical about the plate centre

The plate and chamber prevent rotation of an extruding dough strip about its lengthwise axis. (9pp)

BOMB- ★ D11 78229 D/48 ★ GB 2073-578
Spiral depositor for depositing batter in hot oil - to form Jalebi, with nozzle simultaneously rotating and pivoting

BOMBAY HALWA LTD 10.04.80-GB-011878

(21.10.81) A23g-03/02

10.04.80 as 011878 (295AT)

A spiral depositor comprises a container holding material to be deposited. A nozzle communicates with the container and is pivotally mounted about a horizontal axis. During deposition of the material the nozzle is rotated about a vertical axis and simultaneously pivoted about its horizontal axis.

Pref. the nozzle includes a transverse extension engageable in a member movable towards and away from the base of the container to cause the pivoting movement.

The material may be a flour-based batter which is deposited in a bath of heated cooking oil to form a jalebi. (4pp)

AMMA ★ D11 78248 D/43 ★GB 2073-647
Rounder bar for shaping dough pieces - cooperating with conveyor belt via foot responsive to belt surface irregularities

AMF INC 11.04.80-US-139327

(21.10.81) A21c-11

12.03.81 as 007853 (295AT)

A rounder bar cooperates with an endless conveyor of a dough-shaping appts. The rounder bar and conveyor together form a pocket for the dough while the lower tip of the bar is responsive to irregularities in the conveyor surface for maintaining continuous wiping contact along the full length of the bar.

The rounder bar is attached to a fixed support by a connector which is adjustable to move the rounder bar towards and away from the conveyor to a desired operating posn. in which it can be locked.

The appts. is used with a conventional dough dividing appts. for converting known vols of dough into well rounded spherical pieces of equal size for subsequent processing. The surface contact between the belt and bar is just sufficient to prevent frictional damage to the belt, yet does not permit the escape of dough. (5pp)

MOFO= ★ D11 79329 D/43 ★SU -800-873
Apparatus to determine gassing of bread dough - using container with open/ended vessel connected to tube associated with movable pointer and graduated glass tube

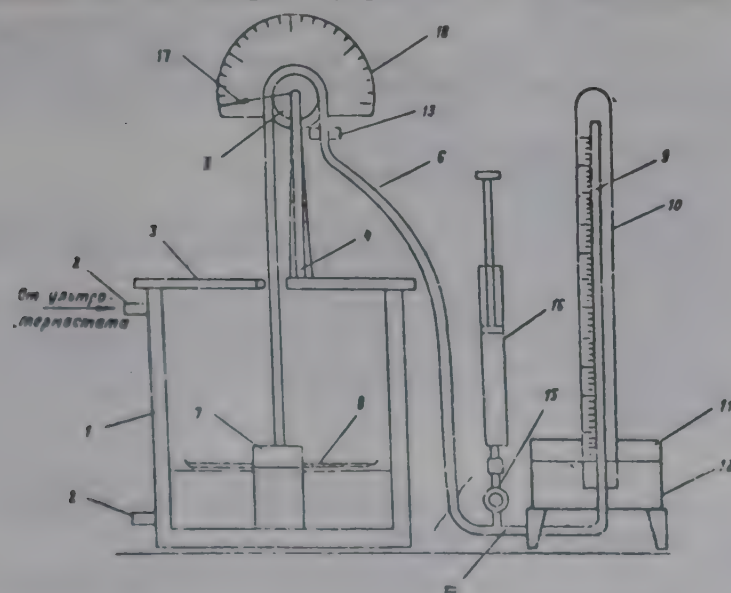
MOSC FOOD IND MECHN 16.04.79-SU-755980

S03 (30.01.81) G01n-33/10

16.04.79 as 755980 (29MC)

Apparatus for determining the gassing possibilities of dough, for control purposes during bread-making under laboratory conditions, has container for the dough (1), which is open at the bottom, provided with a float, pipeline (6), graduated glass measuring device (10), closed reservoir (11) filled with oil (12), and pump (16).

The accuracy of the measurement is increased, with the individual determination of the gassing the gas-holding capabilities of the dough, by providing the apparatus with a



flexible tube (6) and an indicator of linear motion fastened to a rod (4), with a stationary graduated disc (18) and movable block with pointer (17). The flexible tube is passed through the block and connected at one end to the open-ended container (7) and to the glass measuring tube (9) at the other end. (2pp Dwg.No.1)

EZAK/ ★ D11 79444 D/43 ★US 4292-917
Automatic cake topping dispenser - with vertically movable and rotatable cake support plate below nozzles

EZAKIN 01.11.79-JP-142538

P42 (06.10.81) B05c-05/02

08.04.80 as 138563 (1358KB)

A dispenser includes a pair of nozzles delivering e.g. whipped cream and adjustable for height and spacing above a cake support plate which can be raised and lowered and also rotated so that a ring of topping can be applied. Cakes are delivered to the dispenser by an endless conveyor.

A shaft for operating the plate can coast alternatively with the conveyor to control distance between nozzle and cakes. The belt may have a series of pivotally linked support plates, with guides on the vertically movable shaft positioning successive plates at a given height in the centre of the belt. A photoelectric sensing system may be used to monitor nozzle-cake spacing. (7pp)

CAIE/ ★ D11 79488 D/43 ★US 4293-296
Cheese block mould - with parallel rods carried by lid to form through holes

CAIELLO J A 13.10.78-US-951213 (31.10.77-US-847361)

(06.10.81) B29f-01/06

13.10.78 as 951213 (1358KB)

A mould includes an open-ended vertical sleeve closed at the bottom by a support table, and at the top by a lid carrying spaced parallel rods extending through the sleeve to form the holes. The mass is extruded through an opening in the table into the sleeve.

The lid is pref. releasably attached to the sleeve and the rods have longitudinal bores for coolant. A shelf is pref. connected to the sleeve bottom for releasably retaining the cheese mass and for a sleeve with corners there may be a shelf at each corner. Slices can be cut from the solidified cheese to form topping slices with holes for vapour and juice when used in a pizza. (22pp)

INTT ★ D11 79616 D/43 ★US 4293-572
Moisture barrier compsn. for baked or fried foods - to prevent moisture loss and staleness during storage

INT TELEPH & TELEG CORP 14.09.79-US-075615 (28.02.78-US-881935)

(06.10.81) A21d-13

14.09.79 as 075615 (955NS)

In a method for applying a moisture barrier to baked or fried food prods., a water in oil emulsion is prepd. contg. 6-40 wt.% of a saccharide, polysaccharide or dextrin dissolved in 12-43 wt.% water, dispersed in 25-75 wt.% of acetylated monoglyceride, or triglyceride combined with an emulsifier, and held at a temp. at which it is a stable liquid emulsion. The cooked food prod. is cooled to a temp. below the emulsion holding temp. and then coated with the emulsion. The coating is allowed to set, after which the prod. is iced.

The barrier retards water loss and staling of the food material, and the concomitant deterioration in the icings. The method is esp. useful for yeast raised iced doughnuts. (8pp)

D12: MEAT; FISH PROCESSING

GOOS/ ★ D12 77836 D/43 ★BE -889-206
Automatic animal stunning machine in slaughter house - has pendulum type mounting with electrodes and limit switch at end of restrainer

GOOSSENS J B R 12.06.81-BE-889206

X25 (01.10.81) A22b H05c

12.06.81 as 889206 (1011HM)

Automatic machine for stunning animals to be slaughtered by electrocution. The machine is placed on top of a restrainer, which guides the animals to make contact with two electrodes. The animals are conveyed to the end of the restrainer where a

restrainer by gravity.

The machine is made with a pendulum a few metres long with two electrodes. It ensures that the animal is supplied with the appropriate voltage for the appropriate time in the appropriate position. The voltage is switched off at the instant that the animal reaches the end of the restrainer. This is done to prevent other parts of the head and neck muscles from being subjected to a voltage. This could cause the muscles to tear or the bones to break. The electrodes are designed so as to form a sort of funnel aligning the head of the animal such that it travels along the centre of the restrainer. There is free space established between

ne animal has been dealt with.

The machine provides a saving in manpower. The quality of the meat is improved as a result of the use of a higher voltage in the stunning process. It produces an increase in production, achieving figures of more than 600 animals per hour. The machine is easy to operate because of the absence of a drive system. (5pp)

LUCK- ★ D12 77882 D/43 ★DE 3008-742
Food processing work table - with ice top produced by tubular refrigerator coils

LUCKE & DRUCKER GMB 07.03.80-DE-008742
(15.10.81) A22c-17 A23p-01

07.03.80 as 008742 (39AS)

A work table for the processing of food, specially for cutting and chopping of meat, consists of a table top which carries tubular refrigerator coils. A frame can be inserted around its periphery (made of stiff PVC foil) so that the space can be filled with water to be turned into an ice table top. Before the table is used for cutting or chopping, the frame is removed from it.

Arrangement prevents the unhygienic conditions of wooden tops which harbour microgerms in the cuts and need cleaning with boiling water or steam at least once a day. It also prevents sharp splinters from entering the food, if table tops are made of hard plastic materials are used. (11pp)

UNIC D12 72787 S/46 =DS 2114-903
Stuffing machine for foodstuff cases

UNION CARBIDE CORP 30.03.70-US-023934
+ Q31 (15.10.81) *DE2114-903 + B65b-39/06

27.03.71 as 114903 (39HM)

The closure mechanism for a stuffing machine to fill food paste into tubular cases is attached to a filler tube which is charged by a Y-pipe and has a central rod with a power cylinder located between the joining pipes. The rod carries at the open end of the filler tube a sealing plate and is guided by two internal ribs in the tube so that when the rod is retracted, the sealing lip of the sealing plate is pressed against a seat at the filler tube end and closes it.

This closes the filler tube efficiently and prevents remnants from protruding from the end. It functions well even when the paste includes lumpy particles. PS (6pp)

DORN- D12 42497 B/23 =EP G004-933
Band saw for meat and bones - with retractable holding plate for large pieces

MASCHFAB DORNHANG GM 26.04.78-DE-818147

+ P54 P56 P62 (14.10.81) *DS2818-147 A22b-05/20 A22c-17/02

10.04.79 as 101101 (236AT) (G) DS2625096 DS-932650 FR2084272 GB1209457 US2273715 US2722254 US2786497 US2850055 US3009492 E(BE CH FR GB IT LU NL SE)

A meat slicing machine (for slicing meat and bones) comprises a flat table, a band saw operating vertically through a slit in the table, an adjustable slicing plate parallel to the band saw at one side of it, and a holding plate parallel to it and also adjustable at the opposite side.

This holding plate is mounted perpendicularly on the end of a horizontal thrusting or adjustment rod itself slidably mounted in a bearing on a pivot at the end of the table. The pivot bearing is transverse to the thrust rod, i.e. perpendicular to the band saw plane, so that when the holding plate is retracted to its mounting and the mounting is pivoted about the bearing, the holding plate revolves into a horizontal position where it forms a continuation of the table surface.

Thus when a large piece of meat is placed on the table, the holding plate swung down to permit this operation acts as an extension to the table itself. (6pp)

GORA/ D12 32554 D/18 =EP --37-405
Appts. for disintegrating and mixing foodstuffs - partic. sausage meat to produce homogeneous mixt.

GORANSON B 04.10.79-SE-008219

P41 (14.10.81) *WP8100-956 A22c-05 B01f-07/16 B01f-13 B02c-18/06

02.10.80 as 901899 Based on WP8100956 (295TM) (E) DS1028906 DS1030218 DE2318316 E(AU CH DE DK FI GB NL NO SU US)

Meat is disintegrated and possibly mixed with additional foodstuffs such as fat, potato starch and grains which do not require disintegration. The process is carried out in an appts. which includes serially connected units each having an annular space with an inlet and an outlet.

One or more cutters are movably arranged along the centre line of the annular space, and similarly mixers are centrally arranged. Pref. the foodstuffs and meat follow a path within the annular space which may be up to one revolution.

The appts. is designed for the continuous prodn. of sausage meat. The resulting mixt. is homogeneous. (12pp)

FARH

D12

75877 D/42 =EP --37-494

Cellulose hydrate tube with impermeable lining esp. for sausage skin - produced by squeezing in roll gap above reservoir surface of dispersion coating

HOECHST AG 28.03.80-DE-012252

A11 P42 (A32 A97) (14.10.81) *DE3012-252 A22c-13 B05c-07 B05d-07/22

20.03.81 as 102079 (236MR) (G) DS1492708 DE1786517 DE2659000 FR-850504 EP---1545 E(AT BE CH DE FR GB IT LI LU NL SE)

Mfr. of continuous cellulose hydrate tube with an internal water-proof coating contg. a chemical substance comprises applying the liq. dispersion to the inside of the tube. The tube passes vertically upwards in a region where the liq. has a virtually constant surface level inside the tube, then the tube passes between two rolls or belts in a roll gap which forms the metering gap; thus the film applied to the internal surface of the tube from the liq. is metered to the desired quantity at this point and after this the tube continues upwards through a drying stage, typically a hot-air unit.

Here the moisture content of the internal coating liq. evaporates and diffuses outwards through the tube wall, thus forming an internal film on the tube. The tube is subsequently cooled, opt. sprayed with water on its external face, pressed flat and wound onto a storage roll.

The method does not require the use of an excessively diluted dispersion which results in a non-uniform film and distortion of the tube properties due to the action of too much water. (42pp)

FARH ★

D12

78030 D/43 ★EP --37-543

Sausage skin made from sheet with glued seam - containing pores to permit passage of smoke

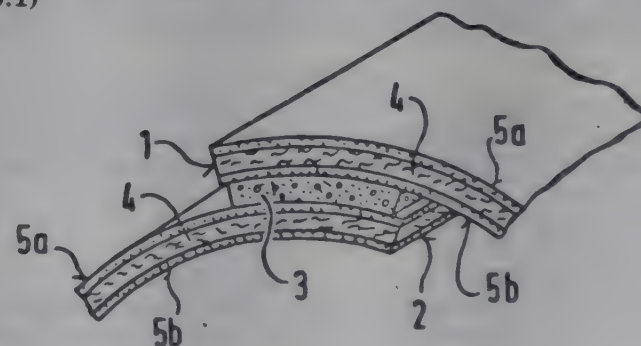
HOECHST AG 05.04.80-DE-013320

A97 + Q32 (A11) (14.10.81) A22c-13 B65d-37 C08j-05/12

30.03.81 as 102378 (236DH) (G) No-citns. E(AT BE CH DE FR GB IT LI LU NL SE)

A tubular skin for foodstuffs, esp. sausages etc., is composed of a rectangular or endless blank of sheet bent around its longitudinal axis so that its edges overlap or are taped together; in the region of the adhesive seam the skin material contains a water-insoluble bond-promoting resin. Claimed resins include urea based material. The longitudinal edges (1,2) are bonded together by a layer (3) contg. a contact adhesive. The skin is pref. made of regenerated (fibre reinforced) cellulose. In one embodiment (as shown) the edges overlap and the layer is between them, while in another embodiment the edges abut and the layer (3) is on either the outside or the inside of both edges with a strip of film acting as sealing tape. With this latter arrangement, the bond-promoting agent is situated between the contact adhesive and the skin material.

The sausage skin is simple and inexpensive to produce, the process not requiring the high temperatures and long dwell times for adhesive to set that are common in previous processes. (56pp Dwg.No.1)



TEEP ★

D12

78073 D/43 ★EP --37-661

Viscose coating of tubular fibrous sausage casing - by internal and external annular dies with oversize aperture

TEE PAK INC 07.04.80-US-138068

A97 (14.10.81) A22c-13 B29f-03/10

19.03.81 as 301181 (HM) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

A tubular fibrous web passes through a cpd. die which applies a liq. to at least one, and pref. both, faces of the web. The web becomes completely penetrated by the liq. independent of the size of the die orifice provided it is greater than a minimum size. The minimum size is that sufficient to supply the required coating liq.

Pref. the volume of liq. discharged by the die per unit length of web is 0.52-0.66 of the maximum discharge rate of the die. The coating liq. forms a laminar flow on the moving web which pref. moves at 7.6 metres per min.

The appts. applies a viscose coating to a fibrous web to form a sausage casing. The coating penetration is not dependent on the viscosity or concn. of the coating liq. (14pp)

CLAV/ ★ D12 78131 D/43 ★ FR 2477-839
Abattoir conversion of waste blood into paste for pet foods - by heating and homogenising in elevating screw conveyor

CLAVEL R 12.03.80-FR-005591
(18.09.81) A22b-05/04

12.03.80 as 005591 (448HM)

Abattoir process and installation are for converting waste blood into a clotted paste. The waste blood is fed into the lower end of a screw conveyor which is inclined slightly to the horizontal, pref at between 2 and 8 deg. The blood is heated as it is conveyed so that the upper end of the conveyor discharges a homogeneous paste.

The conveyor is pref equipped with two, coaxial screws in series. The first of the screws has a helix of shorter pitch than the second. The first screw rotates faster than the second. The ratio of helix pitches of the two screws is pref inversely proportional to the ratio of speeds of the two screws. The first screw is pref rotated at between 10 and 30 r.p.m and the second screw at a higher speed between 20 and 60 r.p.m. The conveyor is pref steam jacketed to operate at between 85 and 110 deg C.

Used to convert waste blood in abattoirs into a homogeneous clotted paste of approximately the same compsn as blood. The prod is intended partic as an ingredient for pet food prods. The paste is easy to handle and to pack into containers for transport at ambient temp the paste will keep in good condition for 12 days or so. The process obviates irreversible sepn of plasma and red cells and is cheaper to operate than processes in which the blood is dried to a powder. (12pp)

FREQ- ★ D12 78132 D/43 ★ FR 2477-842
Opening oyster shells to extract oysters for treatment - employing brief thermal shock and vacuum cooling to overcome adductor muscle

SOC FR EQUIP COLLEC(BRET-) 11.03.80-FR-005378
(18.09.81) A22c-29/04

11.03.80 as 005378 (448HM)

Process and installation are for opening oysters which are to be prepd for eating. The oysters are first washed in bulk and then briefly heated in an oven to administer a thermal shock which relaxes the oysters adductor muscles. The oysters are then transferred into a closed vacuum chamber for rapid cooling and a violent drop in pressure which weakens the adductor muscle. The oysters discharged from the vacuum chamber are easily hinged open and, with shells still attached together they are transferred for further prepn.

The oven temp is pref between 300 and 350 deg and each oyster is carried through the oven in a time of one to one and a half minutes. Time and temp of oven treatment are matched with size of oyster. The oysters are held in the vacuum chamber for a period of several minutes.

Used for opening oyster shells so that oysters can be prepd for eating. Mechanisation reduces labour involvement and prod cost. The shell is not clamped or levered by machine so that broken shell in the prod is not a problem. The oyster flesh is kept at a low temp throughout the process to prevent bacterial growth. (5pp)

LOMP/ ★ D12 79350 D/43 ★ SU -801-830
Edible fish meat stuffing production unit - using perforated drum containing rotor, with discs and knives formed in pairs into V/shape, to cut fish and press it through

LOMTADZE BA 27.12.76-SU-435529
(07.02.81) A22c-25/20

27.12.76 as 435529 (29MC)

Equipment for manufacturing edible fish meat stuffing, has a perforated drum inside which is a rotor on which knives are fastened. More complete mincing of the raw materials is guaranteed to produce a uniform mass, and increase the productivity by fastening the knives to the rotor in pairs, so that a V-shaped gap is formed between them, with the angle between the top edges being 20-25 deg. The cutting edges of the knives are sharpened on the inside. The knives in each pair are different in length, with the shorter one placed parallel and touching the drum, with the gap relative to the latter. (4pp)

STRK D12 85623 C/48 = US 4292-709
Plucking element for stripping feathers from fowl carcasses - has flat ended truncated conical holder for plucking fingers

STORK PMT BV 11.05.79-NL-003737
(06.10.81) *NL7903-737 A22c-21/02

30.04.80 as 145017 (006AT)

Tool for plucking feathers from poultry carcasses comprises a beaker-shaped frusto-conical rotor with plucking fingers on its end wall and side wall. Several fingers on the end wall are parallel to the rotor axis while others project from areas on the side and end walls which lie at an acute angle to the rotor axis, specifically to extend radially but at differing angles of inclination.

as the rotor turns, and can pluck strong feathers such as large wing pins. (6pp)

TOWN ★ D12 79417 D/48 ★ US 4292-710
Membrane skinning machine - with helical serrations on gripper roll providing self cleaning action

TOWNSEND ENG CO 19.11.79-US-095621
(06.10.81) A22b-05/16

19.11.79 as 095621 (1358BZ)

A machine has a gripper roll mounted on a frame carrying a shoe with a concave surface complementary to the roll. A cutting blade is mounted in the shoe and extends along the roll, and there are helical serrations on the roll surface, pref. of continuous construction.

There is pref. a stripper roll rotatable on the frame in the same direction as and faster than the gripper roll. The serrations provide a self-cleaning action between roll, meat and shoe to push fat out of the grooves, the stripper roll assisting by dislodging the fat particles as they are extruded from the grooves. (3pp)

FARH D12 73767 B/41 = US 4292-711
Tubular package sheath - with plastic coating for inside or outside location after filling with contents esp. sausage meat

HOECHST AG 31.03.78-DE-813847

A92 Q31 (06.10.81) *DE2813-847 A22c-11/02 A22c-13

28.03.79 as 024763 (006AT)

Shirred sausage etc. casing are simultaneously stuffed and inverted by deshurring one end portion of the shirred casing, passing the deshurred portion through the bore of the shirred casing before closing the end of the deshurred portion, and then mounting the shirred casing on a stuffing tube with the closed end of the deshurred portion over the tube outlet end.

Casings coated externally before shirring are inverted during stuffing for the coating to contact the stuffed material. (7pp)

TOWN D12 69605 C/40 = US 4292-889
Injecting fluid esp. brine into meat and fish for curing - via. hollow needles with automatic control of vol. of fluid injected

TOWNSEND ENG CO 25.05.79-US-042315

P36 (06.10.81) *BE-883-456 A23b-04/02 + A231-03/34

25.05.79 as 042315 (006MR)

Appts. for injecting liq. such as brine into meat, comprises an array of hollow needles through which liq. is metered in vol. to fill the cavities created by inserting the needles into the meat by a ram.

The depth of needles penetration is sensed by a stripper plate on the needle array unit, the plate being located near the needle points and slidable along the needles against spring-loading. A metering piston is double-acting to draw liquid from a supply and also eject it from the needles during their withdraw movements. (9pp)

SYST- ★ D12 79466 D/43 ★ US 4293-098
Recovery of chitin from shellfish wastes - by grinding and sepg. the lighter fraction with air stream

SYSTEMS CONSULTANTS 20.04.79-US-031846

A11 C03 J01 P41 (D13 D15) (06.10.81) B02c-19

20.04.79 as 031846 (1248AS)

Recovery of chitin (I) from shellfish waste comprises first drying the waste, then mechanically reducing its particle size to 10-400 microns and finally using a gaseous stream to classify and separate a lighter fraction of active (I). A heavier fraction contg. protein and salts remains as residue.

The procedure is economic, simple and easy to control, in contrast to the usual chemical extrn. procedures. The (I) retains the properties of the natural material and so is more useful as a chelating, flocculating and co-ordination agent. The residual matter still contains carotenoid pigments, astaxanthin and its esters, so that ground matter obtd. from it for use as meal has better quality and enhanced protein levels. The (I) prod. is a more cost effective and better starting material for the prodn. of chemically produced chitin and chitosans for biomedical applns. etc. Known uses of (I) include treatment of water, electroplating and metal finishing solns., nuclear wastes, effluents contg. trace organic cpds. or heavy metals or rare metals, or for textiles, in photofinishing etc. (4pp)

STON/ ★ D12 79618 D/43 ★ US 4293-578
Storage of shrimp before processing - in ice contg. a water binding phosphate, used on board fishing vessels

STONE E W 31.03.80-US-135474

(06.10.81) A22c-25

31.03.80 as 135474 (955NS)

Freshly caught shrimp are stored while on board the fishing vessel, by mixing the ice particles contg. a moisture binding

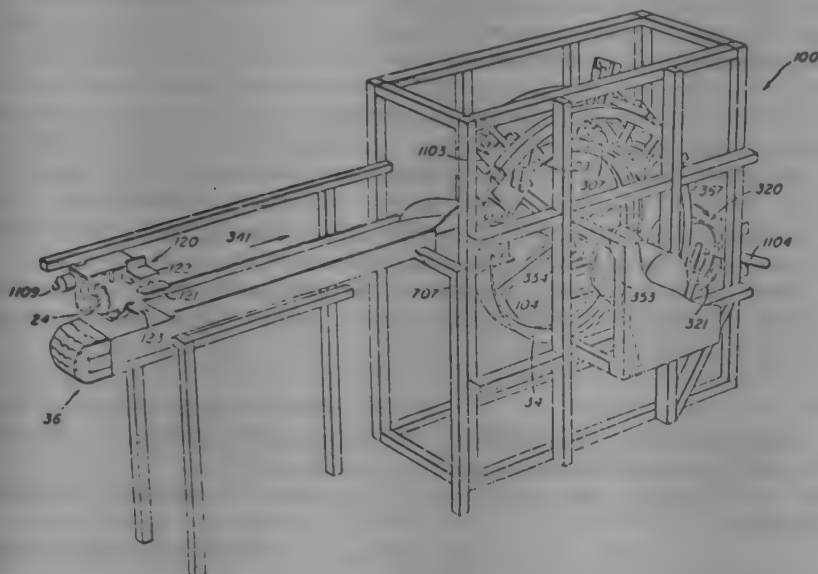
with a soln. of the phosphate. Pref. the shrimp are conveyed from storage to the cooking step without contact with water, which would remove the phosphate.

The treatment reduces losses of moisture and nutrients during storage and processing. The treated ice is colder, and lasts longer, and the processed meat has a better colour. The phosphate content of the flesh is not raised detectably. (8pp)

MAISI ★ D12 79711 D/43 ★ WP 8102-826
Pneumatically powered dog fish skinning machine - has impaling wheel and slit forming cutting wheel on drum subsequently used to pull off skin

MASSACHUSETTS INST TECH 31.03.80-US-135345
(15.10.81) A22c-25/14

27.03.81 as U00394 (295DH) (E) US4084292 US4025986 US1867133
GB-248623 1.Jnl.Ref N(DE DK JP NO SE) E(AT CH DE FR GB NL SE)



A fish is mounted on a rotating wheel by a pin which projects from the wheel and enters the jaw of the fish. The wheel carries the fish through stations which remove the tail, fins and also the skin of the fish.

The skin is removed by first making a transverse cut behind the head. A gripper mounted on a rotating drum, includes clamps which grip the skin behind the fish head. The wheel and gripping drum are then contrarotated so that the skin becomes wound round the gripper drum. Pref. the fin-removing station includes a resilient V-shaped clamp with a longitudinal slot through which the fin projects.

The appts. removes the skin prior to filleting the fish. (59ppDwg.No.2)

SOLO/ ★ D12 79759 D/48 ★ ZA 8101-594
Meat extraction from crustacean legs - by forming two openings and applying water air supply nozzle to one to force meat through other

SOLOMON R W 11.03.81-ZA-001594 (13.12.79-ZA-006757)
(25.05.81) A22b

11.03.81 as 001594 (67)

Meat is extracted from crustacean leg segments by forming a pair of longitudinally spaced openings in the segment and applying a nozzle to one of the openings to cause a pressure drop from one of the openings to the other. This results in meat being forced from the segment through the nozzle-free opening.

The extraction process can be carried out by automated appts. comprising a holder for the leg segment mounted on a conveyor, cutters for forming the longitudinally spaced openings and a nozzle movable into engagement with one of the openings. (11pp)

D13: OTHER FOODSTUFFS

LAIT- ★ D13 77812 D/43 ★ BE -888-269
Cheese with spices rolled in like jam in swiss roll - for even distribution without harming flavour or texture of cheese

LAITERIES TRIBALLAT 08.04.80-FR-007844
(05.10.81) A23c

03.04.81 as 888269 (448HM)
Fresh or soft paste cheese contains a layer of spice rolled as a spiral within the cheese. In mfr. of such a cheese pref. a flat strip of the cheese is coated with spice on one or pref. both sides. The coated cheese is then rolled upon itself in a spiral, in the manner of a swiss roll.

The roll of spiced cheese is pref. wrapped in a thermo-retractable sheet material, e.g. by shrink-wrapping in a PVC film. The wrapping pref. includes a heat-resistant base board with the seam of the wrapping sheet underneath the board. Alternatively, the roll of spiced cheese can be enclosed in an edible outer sleeve. In either case, the prod. is pref. outer-wrapped in aluminium foil. When the cheese is rolled, its moisture content should be higher than that of the final prod., i.e. its percentage of dry matter should be less than 40, pref. between 35 and 38.

Used in prodn. of fresh and soft paste cheeses contg. spices. The spices are evenly distributed throughout the prod. without mechanical mixing, which makes the cheese undesirably crumbly, or melting, which detracts from the flavour of the cheese. (9pp)

YAKI/ ★ D13 77842 D/48 ★ CA 1109-320
Attractively flavoured chewing gum candy - having sugar and gum centre and spearmint and pepsin flavoured sugar coating

YAKIMISCHAK D 12.10.77-CA-288689
(22.09.81) A23g-03/30

12.10.77 as 288689 (558AT)
A chewing gum candy comprises a sugar and gum-based inner part, enclosed by a sugar-based outer coating flavoured by a mixt. of spearmint and pepsin (approx. ratio 1.7:1), the sugar to flavour ratio being approx. 664:1.

The inner part may be formed from chide and an invert sugar such as corn syrup, e.g. in the approx. ratio 8.8:1; and the outer coating can be formed from sucrose or dextrose. The outer coating may include a trace amt. of shellac in a final coat to provide a polished surface and preserve the flavouring.

The gum candy is easily formulated and attractively flavoured. The flavour is intensified by having it in the outer coating, rather than the inner part. (7pp)

FARB D13 79405 B/44 = EP G004-956
Imino-acetamido beta-lactam antibiotic derivs. - used as broad spectrum antibacterials, feed additives, antioxidants and preservatives

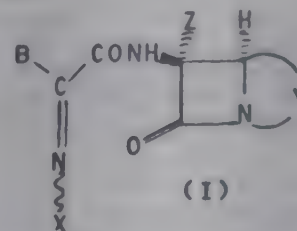
BAYER AG 26.04.78-DE-818263

B02 C02 E13 (D22) (14.10.81) *EP---4-956 A23k-01/17 A61k-31/54 C07d-499/64 C07d-501/20

17.04.79 as 101153 (913AS) (G) DE1770031 DE1770033 GB2000139 E(BE CH DE FR GB IT LU NL SE)

Beta-lactams of formula (I) are claimed, where B is an opt. substd. 5 or 6 membered ring or opt. substd. phenyl; Z is H or 1-4C alkoxy; X is -(NHCO)nW; n is 0 or 1; W is opt. substd. 2-oxoimidazolin-1-yl; and Y is a radical completing a deriv. of penicillin, cephalosporin, isocephem, des-thiaoxacephem or isodes-thiaoxacephem.

Specific (I) are 7-(2-(2-amino 4-triazol-4-yl) N-(imidazolidin-2-on-1-yl) 2-iminoacetoamido) 3-acetoxymethyl 3-cephem 4-carboxylic acid and 7-(2-(2-amino 4-thiazol-4-yl) N-((1-furylideneamino 2-oxo-imidazolidin-3-yl) carbonylamino) 2-iminoacetoamido) 3-acetoxymethyl 3-cephem 4-carboxylic acid. (I) are used as broad spectrum antibacterial (Gram positive and negative activity) esp. against Enterobacteriaceae and those with beta-lactamase forming activity, suitable for prophylaxis and chemotherapy in human and veterinary medicine. (I) are also suitable as preservatives, esp. for organic material (e.g. polymers, wood, leather, fibres, food and drink), and also animal food additives. (36pp)



LANG/ D13 89704 B/50 = EP G005-708
Fuel e.g. alcohol and plant and animal nutrient - produced from solid municipal waste by separation, hydrolysis, saccharification, fermentation, distillation etc.

LANG J L 05.06.78-EP-400012

C03 H09 (14.10.81) *EP---5-703 A23k-01 C02f-01 C05f-07 C05f-09 C10l-01 C12p-07/10

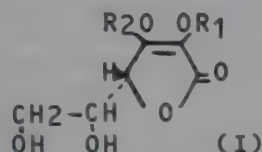
05.06.78 as 400012 (922NS) (F) FR-811821 FR-638690 FR-984983 FR2119987 FR2321469 US2198785 US2312196 US3711392 US3725538 US3787583 US3848813 NL7406786 E(BE CH DE FR GB LU NL SE)
Useful materials (i.e. nutrients (I), animal feed (II) plant food (III) and liquid fuel for internal combustion engines) are obtd. from a solid waste biomass by grinding the biomass and (a) acid hydrolysing with H₂SO₃ under conditions to solubilise the organic moiety and convert them to fermentable sugars, fermenting to produce alcohol, (b) filtering the fermented prod. to yield a filtrate (which is opt. sterilised before being used as (I)), and a residue ((II) and/or (III)) and (c) distilling the filtrate to obtain the fuel and a residue (II) and/or (III)).

No prior sterilisation of the biomass is necessary. (5pp)

COKE D13 05783 C/04 = EP G007-095
Anthocyanin coloured food - contg. blocked ascorbic acid deriv. as bio available vitamin C, the food compsn. being colour stable
COCA-COLA CO 27.04.79-US-034065 (11.07.78-US-923523)
E13 (14.10.81) *EP---7-095 A23l-01/27 A23l-02
11.07.79 as 102381 (945JB) (E) DE2534091 US4132793 E(CH DE FR GB IT)

An ascorbic acid deriv. having at least one blocked enolic OH function is used as bio-available vitamin C in food contg. an anthocyanic pigment. Pref. the deriv. has formula (I) or is a corresp. salt. In the formula one of R₁ and R₂ is R, SO₃H, SO₃-PO₃H₂, PO₃H- or COR and the other is H, R, SO₃H, SO₃-, PO₃H₂, PO₃H- or COR where R is a 1-10C aliphatic or alicyclic organic residue.

The food is colour-stable. It may be dry or a mixt. of food components in water, pref. a multiple strength syrup or concentrate, or a single strength beverage. (11pp)



HAGG D13 46321 C/27 = EP G012-365
Decaffeination of coffee - by extraction with acetal solvent

HAG AG 08.12.78-DE-853169

E17 (14.10.81) *DE2853-169 A23f-05/20

08.12.79 as 104955 (913MR) (G) CH-157021 DE2737793 DE2737794 FR-597392 1. Jnl. Ref E(AT BE CH FR IT LU NL SE)

Green coffee, which opt. has been hydrolysed with water or steam, is decaffeinated using acetals of formula

R₁-CH(OR₂)(OR₃) (I)

(where R₁ is H or methyl, and R₂ and R₃ are (m)ethyl), and the solvent residue removed by steaming.

Pref. (I) is 1,1-di(m)ethoxy-methane or 1,1-dimethoxy-ethane. Process is effected at between room temp. and 100 deg.C, and the acetal used contains an amt. of water corresp. to the water distribution coefft. between acetal and moist green coffee at that temp.

Roasted coffee produced from the treated material is indistinguishable from and has the same flavour as that from untreated green coffee. (4pp)

ROQF D13 30821 D/18 = EP --37-407
Hard dragee production using sorbitol to replace sugar - gives sugar-free products avoiding tooth decay and with a more refreshing taste e.g. chewing gum

ROQUETTE, FRERES SA 03.04.80-CH-002652 (17.10.79-FR-025840)

B07 P42 (14.10.81) *BE-885-778 A61k-09/36

16.10.80 as 901943 Based on WP8101100 (395BZ) (F) FR1137104 GB1123336 BE-676369 FR2108470 US3185626 US3361631 US2925365 DS2636152 FR2361105 US2841528 E(DE GB NL SE)

Prodn. of hard dragees using sorbitol comprises: (a) addition of a syrup contg. 60-85 wt.%, pref. 62-80 wt.% of dry materials, of which greater than 80%, pref. greater than 95% is sorbitol, to a moving bed of the nuclei to be coated; and (b) the temperature in the moving bed of nuclei to be coated is maintained at less than 50 deg.C pref. 50-10 deg.C, so that when the sorbitol syrup is contacted with the nuclei to be coated the level of satn. is 0.85-1.25, pref. 0.8-1.15.

Dragees are produced without use of sugar, for confectionery and pharmaceuticals, e.g. chewing gum, liquorice bonbons. The use of sorbitol avoids tooth decay etc. associated with sugars and

pp)

MNKN * D13 78000 D/43 *EP --37-447
Acid-resisting whipping cream powder - contg. caseinate, vehicle, fat or oil, acetylated mono:glyceride and cyclic phosphate and/or polymer cpd.

MINAMI NIPPON RAKUNO KYO 07.04.80-JP-045969

A97 (14.10.81) A23c-13/14 A23l-01/19

13.10.80 as 303594 (478HM) (E) No-cltns. E(DE FR GB NL)

Acid-resisting whipping cream powder consists of Na or Ca caseinate; a vehicle; a fat or oil; an acetylated monoglyceride (I); and a cyclic phosphate (II) and/or a polymer material (III). Compsn. contains (by wt.) 10-70% vehicle, 30-80% fat or oil, 5-20% (I) (based on fat and oil) and 0.5-10% (based on caseinate) of (II) and/or (III). Vehicle is lactose and/or dextrin etc. Fat or oil pref. has relatively high m.pt. (e.g. 36-42 deg.C) and is suitably milk fat, or palm, coconut, soybean or cottonseed oils (or hardened oils). (I) is an alpha-mono-glyceride of a 16-18C fatty acid (the gamma-OH acetylated; degree of acetylation pref. 30-70%). (II) is pref. Na hexa-meta-phosphate, Na ultraphosphate, and phytic acid, (III) is suitably alginic acid, chondroitin, hyaluronic acid, teichuronic acid, colominic acid, lamda- or kappa-carrageenan, charonin sulphate, polyribose phosphate, poly-acetyl-galactosamine phosphate, Ca cellulose glycolate, Na cellulose glycolate, Na starch glycolate, starch phosphate, Na polyacrylate (mol. wt. 40,000-120,000), pref. Na alginate, carboxymethyl-cellulose or chondroitin sulphuric acid.

The prod. has excellent whipping props. and shape retention even under acidic conditions (fruit juice etc.) when it is reconstituted. (22pp)

INTF * D13 78067 D/43 *EP --37-644
Augmenting aroma of foodstuffs, medicinal prods. etc. - by addn. of a norbornane-5-carboxylic acid or analogue

INST TEXTILE DE FRANCE 13.11.80-US-206632 (25.03.80-US-133870)

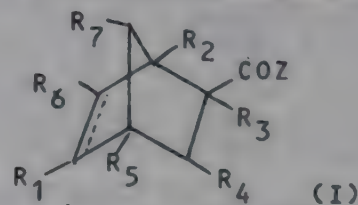
B05 E15 P15 (D18) (14.10.81) A23g-03 A23l-01/22 A24b-15/34 A61k-07/46 C07c-47/34 C11d-03/50

12.03.81 as 301044 (+ 22.5.80, 17.7.80, 13.11.80-US- 152187, 152188, 206466) (1248HM) (E) DE2833283 US4153568 US4143074 US4151309 US4153811 DE2750206 US4208297 E(CH DE FR GB LI NL)

Augmenting or enhancing the aroma of a foodstuff, chewing gum, toothpaste, medicinal prod., smoking tobacco, chewing tobacco, perfume, perfumed article, cologne, smoking tobacco article or flavouring compsn. comprises a norbornane-5-carboxylic acid or analogue of formula (I) (the broken bond is an opt. double bond; Z is OH, OR₁₀, H or NR₈R₉; R₁₀ is 1-4C alkyl; R₁-R₇ are H or Me; and R₈ and R₉ are H or 1-4C alkyl. Provided that (a) one of R₁, R₂, R₅-R₇ is Me and the others are H; and (b) %3 and R₄ are not both Me.

Cpds. (I) are new when as defined above except that for proviso (b) one of R₃ and R₄ is Me and the other is H, and with the additional provisos that (1) when Z is OR₁₀, then the double bond is present, and R₁, R₃ and R₄ are not all H when R₂ is Me; (2) when Z is H, then R₁ and R₂ are H or Me, R₄ is H or Me and R₃, R₅-R₇ are H; and (3) when Z is NR₈R₉, then one of R₁, R₂ and R₇ is H and the others are Me; one of R₃ or R₄ is H and the other is Me; R₅ and R₆ are H; and R₈ and R₉ are H or 1-3C alkyl; and R₁₀ is 1-4C alkyl.

Cpds. (I) have fruity and other aroma and flavour characteristics and bitter taste characteristics. (321pp)



GENO * D13 78078 D/43 *EP --37-671
Dry, water soluble, macroporous edible particles - useful for adsorbing volatile aromatics and essential oils or carbon dioxide

GENERAL FOODS CORP 09.04.80-US-138817

(14.10.81) A23f-05/48 A23l-01/22 A23l-02/40

24.03.81 as 301256 (478BZ) (E) No-cltns. E(AT BE CH DE FR GP IT LI LU NL SE)

Dry, water-soluble particles of an edible material (I) have surface area above 5 m²/g, and a microporous structure in which the pore vol. of micropores of radius less than 150 angstrom is above 5 microlitre/g. Particles pref. have surface area above 2 m²/g; and have a most frequently occurring radius of less than 150 Angstrom, pref. less than 50 Angstrom, esp. less than 3 Angstrom. (I) consists of soluble solids obtd. from roasted coffee, roasted chicory, roasted wheat, roasted blend of wheat and molasses, or is a carbohydrate from sugars, dextrans or corn syrup solids, etc. Particles may be used as

rods., or pref. above 5% for CO₂ to be used for carbonation. Loaded particles are added to powdered food prods. at 0.01-2% by wt. Suitable aromatic or essential oils to be adsorbed include conventional coffee oil aromas, citrus oils, etc. Aromatic oils, etc. may be loaded onto particles by mixing the particles with a condensed CO₂ aroma frost, and allowing the CO₂ to sublime off. The edible particles are useful for adsorbing high levels of aromatic or essential oils, and in a closed container they release these in a repeated, controlled manner over a long period of time. The particles are thus useful for aromatising a variety of food prods., esp. soluble coffee or tea. In addn., particles contg. adsorbed CO₂ can be produced for carbonation purposes. (29pp)

GENO ★ D13 78079 D/43 ★EP --37-676
White, bland, fibrous protein prod. - prepd. by unidirectional freezing of aq. protein and alginate gum, slicing, gelling and heat setting

GENERAL FOODS CORP 04.04.80-US-137214
(14.10.81) A23j-03
04.03.81 as 301257 (478BZ) (E) No-cltns. E(AT BE CH DE FR GB IT LI LU NL SE)

A white, bland-tasting protein prod. texturally and nutritionally similar to the meat flesh of mammals, poultry, or seafood is prepd. as follows: (a) a mixt. of a heat-coagulable protein (I), a thermally irreversible gum (II) and H₂O is cooled to form elongated ice crystals and to separate (I) into well-defined, well-ordered, independent fibres; (b) the solid mass is sliced parallel to the longitudinal axis of the ice crystal formation to form fibre bundles; (c) the (II) in each fibre bundle is gelled to reinforce the fibre-like structure; (d) resulting fibre bundles are heated to coagulate (I); (e) the coagulated fibre bundles are treated with an aq. soln. of a sequestering agent (III) to modify the texture and extract salts affording off-flavours; and (f) the prod. is sepd.

Inexpensive method affords a fibrous, continuous phase protein material which has structural integrity and is readily accepted by consumers. In addn., a wide range of meat-like textures can be simulated. (24pp)

GUIT/ ★ D13 78133 D/43 ★FR 2477-844
Laxative chocolate prod. contg. wheat bran - using bran of 200-600 micron particle size, gives improved regulation of intestinal transit

GUITARD L 13.03.80-FR-005692 (29.03.79-FR-008419)
(18.09.81) A23l-01

13.03.80 as 005692 Add to 29.3.79-7908419 (597MR)

The prod'ls made by incorporating wheat bran of 200-600 micron particle size in a paste obtained from roast ground cocoa nuts.

The pref particle size is 350-450 microns. Wheat flour is pref incorporated esp such that the bran is at least 30% of the bran flour mixture particularly in using a grinding of the total wheat. Pref 0.2-0.8g bran/gm cocoa powder is used. The bran/cocoa mixture is homogenised after addn of the usual additives such as sugar and flavouring. The prod has the same taste as normal chocolate.

Used to prepare chocolate with laxative properties, it has been found that the particle size above ensures a better regulation of intestinal transit. (5pp)

SOLL- D13 89901 A/50 = GB 1600-536
Sugar coating machine - with partial enclosure and steam admission to prevent incrustation

SOLLICH SPEZIALM KG 03.06.77-DE-725182
(21.10.81) *DE2725-182 A23g-03/20

31.03.78 as 012717 (006TM)

Appts for applying heat-liquefiable sugar-based coating material to biscuits etc has a distributor enclosed in a housing contg a water-saturated atmos. which prevents the material such as fondant icing from premature hardening and caking on the distributor.

Pref the enclosure is a transparent hood, to the interior of which water vapour is fed continuously to make up losses, i.e. by escape or condensation. (4pp)

BROL ★ D13 78230 D/43 ★GB 2073-574
Cheese compsn. contg. powdered alpha-cellulose - pref. dried to a water content of at most, 18 percentages

BROOKE BOND FOODS 10.04.80-US-138908
C03 (21.10.81) A23c-19/08

10.10.80 as 032817 (1476AT)

Cheese compsn. comprises a mixt. of powdered alpha-cellulose, including both amorphous and crystalline components, and a natural and/or processed cheese material.

Pref. the amt. of alpha-cellulose present is 0.5-35 wt.%. Typically the powder particles are up to 400 microns in ave. length, pref. up to 350 microns and best 40-290 microns. Pref. the compsn. is dehydrated to a water content of not more than 18 wt.%, best no more than 10 wt.% e.g. 7-10 wt.% or 3-7 wt.%. Cheeses esp. suited for use in the compsns. are very hard, hard,

semi-soft and processed cheeses.

The cheese compsn. is useful as a food source for humans and animals. The cellulose allows removal of water from the compsn. by economical conventional drying techniques while substantially retaining the fat content of the cheese, which would ordinarily melt under conventional drying conditions and be lost. The removal of water means there is less weight to transport; and the resistance of the cheese to mould and bacterial growth is enhanced. (10pp)

NEME/ ★ D13 D/43 ★HU H002-668
Rearing calves to give sterile blood useful in medicine - in sterile environment and on diet including *Streptococcus faecium*
NEMESKERY T 07.04.81-HU-000896
C03 P14 (D16) (28.09.81) A01k-01

PAPA- ★ D13 D/43 ★HU T020-773
Marinating compsn. - comprises aq. soln. contg. alkali metal chloride and/or polyphosphate, alkali metal nitrite and dextrose and/or saccharose
PAPAIHUSKOMBINAT 07.02.80-HU-000279
(28.09.81) A23b-04/08

MAED- ★ D13 D/43 ★HU T020-774
Chocolate-coated cherry or morello cherry confectionery products - prepd. without use of alcohol preservative
MAGYAR EDESIPARI VA 25.04.80-HU-001021
(28.09.81) A23g-03

VAJD/ ★ D13 D/43 ★HU T020-777
Honey-contg. food product - is homogeneous compsn. of honey, milk powder, flavour concentrate, vegetable fat and stabiliser
VAJDAG 08.02.80-HU-000286
(28.09.81) A23l-01/08

BUDA/ ★ D13 D/43 ★HU T020-778
Bakeable meat substitute with high protein content - in powdered form, having long shelf life without refrigeration
BUDA B 21.12.79-HU-BU0958
(D12) (28.09.81) A23l-01/18

SZOL- ★ D13 D/43 ★HU T021-012
Herb-extract concentrate for soft drink prodn. - has bitter taste and improves digestion
SZOLESZETI ES BORAS 03.12.79-HU-SO1267
(28.09.81) A23l-02/28 C12g-03/06

POSE/ ★ D13 D/43 ★HU T021-191
Animal feed mixt. with additives - comprising urea, molasses, vitamins minerals and opt. fats
POSEVITZ V 31.08.73-HU-BU0682
C03 (28.09.81) A23k-01

GUOT/ ★ D13 D/43 ★HU T021-196
Feed supplement for vertebrate animals - promotes digestion and balances water and salt circulation, acidity and electrolyte consumption
GUOTH J 04.03.78-HU-GU0327
C03 (28.09.81) A61k-35/78

HASE D13 78791 A/44 = J8 1041-664
Natural colouring material - obtd. by extn. of cacao bean shells, using initial acid treatment, then extracting under neutral or basic conditions

HASEGAWA KK 07.03.77-JP-023753
E24 (29.09.81) *J53109-529 C09b-61

07.03.77 as 023753 (43BZ)

Prodn. of natural colouring matter comprises extracting for collection natural colouring matters of cacao bean shells, the cacao bean shells being treated in advance with acids.

Extraction is effected e.g. in neutral or basic conditions. The cacao bean shell are classified and washed, then treated with acid, e.g. HCl, H₂SO₄, etc. in aq. medium while heating at more than 50 deg.C.

Process produces in simple procedures deep-coloured natural colouring matters of cacao bean shells with a reduced content of foreign substances, which show the red-brown colour when dissolved in water and are useful for colouration of food prod. of different kinds. (J53109529) (3pp)

SANE D13 90385 B/50 = J8 1041-665
High purity paprika pigment prodn. - by ester exchange treatment of e.g. cayenne pepper seed in presence of alcohol and basic catalyst and addn. of non-polar solvent

SAN EICHEM IND KK 28.04.78-JP-051029
E24 (29.09.81) *J54142-236 C09b-61

28.04.78 as 051029 (57RH)

Process comprises ester exchange treatment a paprika pigment contg. substance in the presence of alcohol and a basic catalyst and addn. of a solvent with no or low polarity.

The ester exchange reaction treated prod. is neutralised with acid and oil layer is sepd. The non-polar solvent or low polar solvent such as hydrocarbons, halogenated carbons, ethers, carbon disulphide, etc. is added to the oil layer to deposit paprika pigment. The raw material used is the seed case of cayenne pepper, its dried prod. and oleo resin obtd. from it.

The obtd. prod. has excellent colour development and light resistance, has stable colour and has no abnormal odour. Mfg. operation is safe and easy, and yield is high. (J54142236) (3pp)

SANE D13 19056 C/11 = J8 1041-866
Colour stable, anthocyan colourant compsn. - contg. anthocyan colourant and soln. of flavone or flavanol cpd. in an amt. less than that of anthocyan

SAN EICHEM IND KK 18.07.78-JP-088078

E24 (29.09.81) *J55013-771 C09b-61 + C09b-67/22

18.07.78 as 088078 (136NS)

Compsn. contains (i) anthocyan colourant and (ii) soln. of flavone type or flavanol type material having a concn. below that of saturation in a quantity below that of component (i). The compsn. is stabilised and has excellent light resistance, brightness and colour. The colourant is used for colouring drinks and foods.

Flavone materials include, e.g. apigenin, primetin and tricin, and flavanol materials include, e.g. rutine and myricetin. Component (ii) is added to non-toxic solvents such as water, propylene, glycol and glycerine, opt. with heating. The soln. obtd. is added to anthocyan and mixed homogeneously. (J55013771) (3pp)

SAOK D13 66769 C/38 = J8 1041-667
Carmine colouring compsn. - comprising fine cellulosic substance which contains chitosan and has absorbed carthamin

SANYO KOKUSAKU PULP 30.01.79-JP-008696

B07 E02 (D21) (29.09.81) *J55102-659 C09b-61 + C09b-67/02

30.01.79 as 008696 (DH)

The colouring compsn. consists of fine cellulosic substance such as cotton, pulp, etc. which contains below 20 wt.% chitosan and has adsorbed carthamin. The cellulosic substance has average grain size of below 100 microns in the long axial direction and below 30 microns in the short axial direction.

Fine cellulosic substance contg. below 20 wt.% of chitosan is suspended in alkaline water soln. which contains carsamine. The pH value of the suspension is adjusted to 7-3 by the addn. of acid under stirring so that carsamine may develop colour and may be adsorbed by cellulosic substance.

Chitosan-contg. cellulosic substance and carsamine are kneaded or grounded in the presence of water and/or organic solvent in which carsamine is soluble. The process is followed by drying, crushing and opt. sieving. The colouring compsn. is readily dispersible in both aq. and oily substances and tints them in clear carmine colour without causing bleeding. (J55102659) (5pp)

PERF. ★ D13 D/43 ★SE 8101-310
Battery moulds in cheese mfr. - have outer frame divided into individual moulds each with cross-plate acting firstly as base and then as press after turning

PERFORA ROSSEN HAS 05.03.80-DK-000949

P13 (05.10.81) A01j-25/06

27.02.81 as 001310 (1161PW)

The pressed cheese production unit uses battery moulds which successively pass a filling station a primary turning station, a press, a discharge station, a secondary turning station, and a cleaning section.

Each battery mould comprises an outer frame which is divided into a number of individual moulds by intersecting separating walls. The individual moulds each have a cross plate which is limitedly movable, serving firstly as a base and then, after the first turning process, as a press plate for the cheese mass.

This enables the cheese to be collected in the tops of each individual mould and easily removed in the discharge station.

ANIM = ★ D13 79319 D/43 ★SU -800-856
Residual humidity measurer in dried granular material - has three-bladed reciprocating wheel to scoop sample from stream of grains, press it to electrodes and discharge

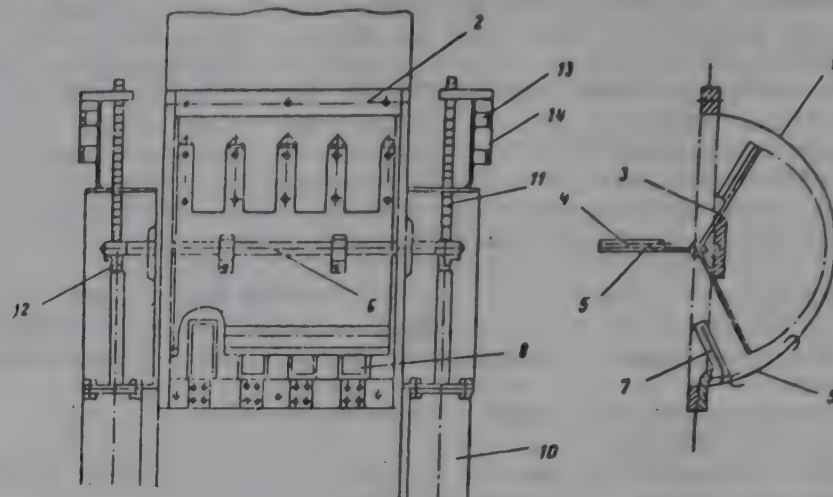
ANIM HUSB FODDER 28.03.79-SU-745153

C03 S03 (30.01.81) G01n-27/22

28.03.79 as 745153 (135MI)

Improved accuracy of measuring residual humidity in free flowing granular fibrous material, e.g. in the process of preparing vitaminised fodders from grain is ensured in this design of the sampler. It consists of semicylindrical chamber (1) fixed over the opening in the channel for the passage of the dried material. On axis (6) in chamber (1) is eccentrically fixed three-bladed wheel (3) containing one blade in the form of a plane plate

and two comb-shape blades with dividers (4) and seals (5) which correspond to the grooves between electrodes (8) on the comb-like holders (7). Bul.4/30.1.81. (4pp Dwg.No.1)



DAIR = ★ D13 79328 D/43 ★SU -800-872
Prod. of milk sample for use as colorimetric standard - includes passage of raw through five varying depths of silica gel

DAIRY IND RES INST 10.01.79-SU-711316

S03 (30.01.81) G01n-33/04

10.01.79 as 711316 (835VE)

Milk samples contg. 3.0-5.5% protein are used to calibrate photo-colorimetric apparatus used in the colorimetric determination of protein in milk. Milk protein properties are maintained and the accuracy of calibration is raised, by operating as follows: raw bulk milk is passed through 5 chromatographic columns filled with 5-25g respectively of grade ASKG silica gel to raise the protein-content successively.

The drying or sterilisation of high protein milk causes marked changes in protein properties, which affect the accuracy of subsequent colorimetric determinations. 5 chromatograph columns (200 x 25mm) are filled with 5 to 25g silica gel. 35ml raw milk are added to each and the issuing samples each contain varying amounts of protein for use in subsequent instrument calibration. With milk of 3% protein-content, after treatment the amount of protein in the milk leaving the 5 columns was 3.3, 3.5, 4.0, 4.4 and 5.7% respectively. Bul.4/30.1.81. (3pp)

PLAN = ★ D13 79347 D/43 ★SU -801-82
Nutrient for breeding *Harmonia axyridis* Pall insects - contg. casein, saccharose, yeast autolysate oil, dried milk, amino:acids, agar vitamins etc.

PLANT PROTECT RES 29.05.79-SU-774137

C03 P14 (07.02.81) A01k-67

29.05.79 as 774137 (835VE)

Nutrient media for breeding the coleoptera *Harmonia axyridis* Pall insects contains (in wt. %): casein 13.8-14.2, saccharose 11.8-12.2, cystine 0.145-0.155, dried milk 1.8-2.3, dried bean aphid 1.4-1.6, corn oil 0.9-1.1, coconut oil 2.4-2.6, Wesson salt 1.4-1.6, cholesterol 0.18-0.22, brewers yeast autolysate 19.0-21.0, tocopherol 0.075-0.085, ascorbic acid 0.148-0.152, choline chloride 0.038-0.041, folic acid 0.009-0.011, pyridoxine 0.0029-0.0031, p- amino-benzoic acid 0.009-0.011, biotin 0.000039-0.000041, Ca pantothenate 0.014-0.016, nicotinic acid 0.009-0.011, arginine 0.009-0.011, glutaminic acid 0.019-0.021, methionine 0.009-0.011, agar 1.4-1.6, remainder pure water. Bul.5/7.2.81. (3pp)

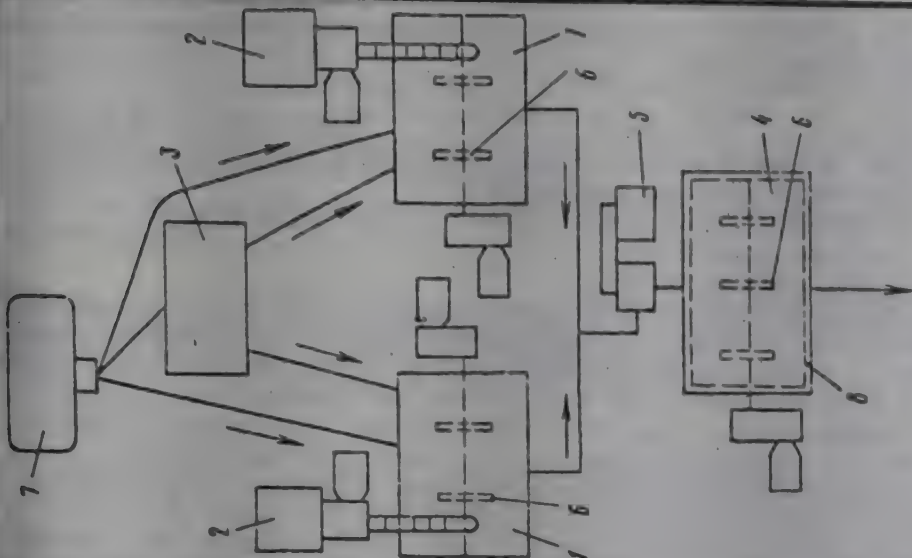
ANDI = ★ D13 79351 D/43 ★SU -801-83
Synthetic milk production unit - feeds raw materials from hopper to mixer-scalding units to which hot water and steam are fed followed by emulsification

ANDIZHAN AGRIC SUPP 27.07.79-SU-808118

(07.02.81) A23c-11

27.07.79 as 808118 (29MC)

Installation for making synthetic milk, has loading hoppers (2) mixer/scalding units (1) with bladed impellers, tank (3) for heating the water and pump/emulsifier (5). The product quality is increased with simultaneous increase in productivity, by providing a milk cooler (4), linked to the mixer/scalding units (1) via the pump/emulsifier. The tank (3) for heating the water and the mixer/scalders are connected directly to a source of steam (7). (2pp Dwg.No.1)



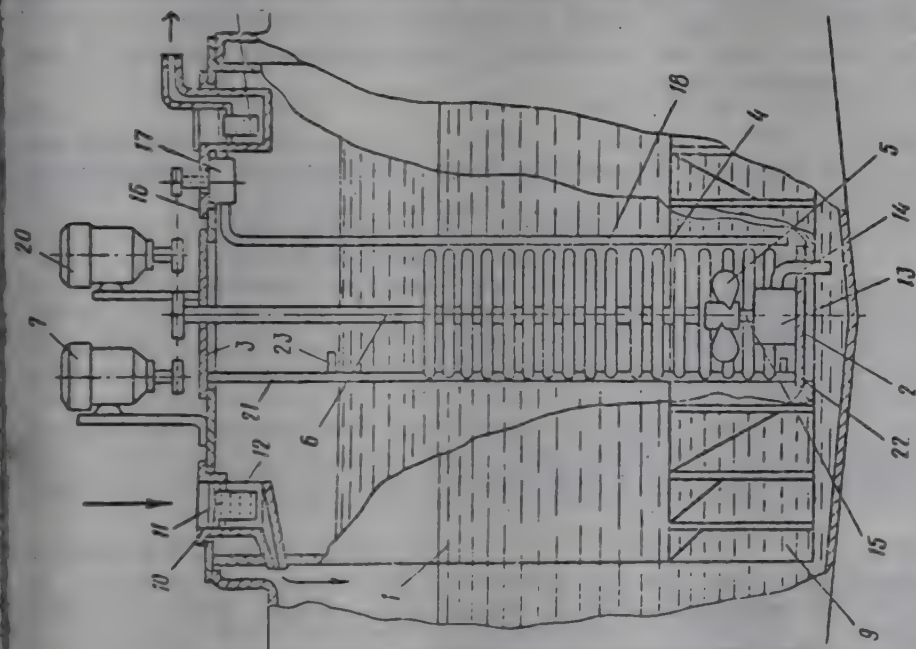
LTA = ★ D13 79352 D/43 ★ SU-801-832
Mixer for urea and molasses - works by dissolving urea in water and heating molasses for mixing with pump and propeller

ALTAI ANIMAL HUSBAN 17.08.79-SU-812107

C03 (07.07.81) A23n-17

7.08.79 as 812107 (29MC)

Installation for mixing urea with molasses, used in mfr. of animal feed concentrate, has vertical mixing tube (1) with a heater (4) positioned on its base, plus a propeller mixer (5) connected to a shaft (6) inside a container fitted with additional heaters (9), and funnel to admit the molasses (10). The quality of the product is improved by fitting a plate (2) covering over the lower opening in the mixing tube. Fastened to the plate is a pump (3), the suction pipe (14) from which is brought outside the container and the delivery pipe is placed inside the mixing tube. A filter (11) is located in the funnel. (3pp Dwg.No.1)



PANY/ ★ D13 79384 D/43 ★ SU-801-878
Organic material nitrogen content estimation - includes mineralisation by heating with sulphuric acid of catalytic mixt. of selenic and phosphoric acids and hydrogen peroxide

PANYUSHKIN YU A 30.05.78-SU-620928

J04 S03 (07.02.81) B01j-27 G01n-31

0.05.78 as 620928 (314VE)

Catalyst for the combustion of organic material with H₂SO₄ for use in analytic techniques, esp. in estimation of N content of feedstuffs etc., comprises a mixt. of H₃PO₄, selenic acid and H₂O₂ in a vol. ratio of (0.8-1.3):(0.8-1.3): (9-12). The catalyst mixt. has high activity.

In an example, the N content of a feedstuff is estimated by adding to 250mg of fish meal, 4mls of a 1:1:20 mixt. of selenic, phosphoric and sulphuric acid. 2mls. of H₂O₂ are added with cooling and the mixt. is combusted at 350-380 deg.C. in 8 mins. and the N content is estimated. With a prior art catalyst combustion takes 12 mins. Bul.5/7.2.81. (4pp)

SALE/ D13 57115 C/33 = US 4292-890
Rice grain polishing machine - has grain conveying device with helical abrasive material-coated rib flanks

SALETE-GARCES F 24.01.79-MX-176383

P41 (06.10.81) *DE2947-758 B02b-03/04

21.11.79 as 096269 (006MR)

Grain polishing and whitening appts. esp. for rice, incorporates a screw conveyor of which one section has an abrasive-coated rib, and is on a hollow shaft with a succeeding section carrying

diagonal and fluted knives.

A sectional housing is about the shaft, the section opposite the fluted knives being a screen with diametrically-opposed co-operating fluted knives. Single appts. both de-husks and polishes rice, without the need for the usual separate de-husking machine. (14pp)

NEST

D13

09506 C/06 = US 4293-049

Gravimetric dispenser for ice cream container filling machine - does not pressurise prod. while empty container replaces full one

SOC PROD NESTLE SA 20.07.78-FR-021507

S02 Q31 (06.10.81) *EP---7-411 G01g-01/38

07.06.79 as 192507 Based on WP8000245 (1358JB)

Appts. for metering and balancing the total load of a container during filling, partic. a bulk container with ice cream, includes a lever with an arm on each side of a fixed pivot, one arm end supporting the end of a rod movable axially and vertically to rotate the arm, with a load-carrying platform at the other end moving downwards as the load increases.

The second arm has two parts pivotable about a movable axis and carries a counterweight to slide along a straight inclinable rail. The lever can be balanced in two positions, one corresponding to zero load on the platform and the other to a given load, with substantial equilibrium in intermediate positions. (11pp)

NETI. ★

D13

79486 D/43 ★ US 4293-292

Candy floss machine - with automatic stick dispenser holding and rotating stick to collect floss

NEASTERN TIMBER US 19.11.79-US-095831

(06.10.81) A23g-03/20

19.11.79 as 095831 (1358NB)

A machine includes a rotary head forming the floss, and a system automatically dispensing stored sticks singly to a point spaced from the head. The system includes an annular storage with an ejection opening and biasing urging sticks towards the opening while holding them in alignment ready for dispensing.

A dispensed stick is pref. retained in a collar and sleeve which clamp and rotate the stick about its axis while a rotary drum around the head sweeps floss towards the stick. After producing a set amount of floss the drum and stick are rotated for a further set time to collect residues of floss. The total heat applied to the head is pref. controlled in dependence on its initial temp. (18pp)

SPET-

D13

75721 B/42 = US 4293-307

Helically grooved cylinder for analysis of liquids - is surrounded by membrane to process constituents for passage to analyser

ST PETERS RES TRUST (SIRA) 05.04.78-GB-013293

A96 B04 J04 P31

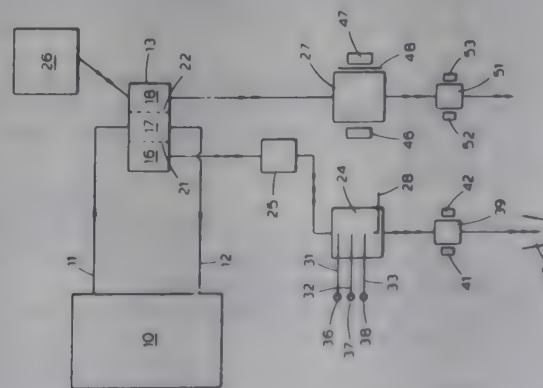
(D15 D16 S03 S05) (06.10.81) *EP---4-

760 G01n-27/40 G01n-33/48

15.03.79 as 020777 (1358TM)

Appts. for continuously analysing a blood flow for ions, partic. K or Ca, includes a cell (13) divided by a semi-permeable membrane (21) into a blood throughflow (17) and an ion-receiving (16) compartment, with ions and water from the latter passing to a head (24) with ion-selective (31-33) and reference (28) electrodes.

Blood is pref. supplied via a nontoxic hypothermogenic tube, and the membrane has a sharply-defined mol. wt. cut-off point of 10,000-30,000, above which molecules cannot pass. After analysis the water is allowed to discharge dropwise so that blockage or rupture of the membrane will be indicated. Water and ions are pref. passed from the cell to the head by a peristaltic pump (25). (6pp)



OREA

D13

85028 Y/48 = US 4293-542

Cosmetics contg. amino-pyridine (N)-oxide derivs. - for imparting brown colour to skin after exposure to sunlight

L'OREAL SA 03.05.76-FR-013164

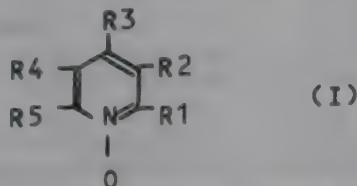
E13 (06.10.81) *DE2719-533 A61k-07 + A61k-31/44

03.05.77 as 793316 (965PW)

Compsn. for imparting to human skin after exposure to sun light a colour resembling natural tan, comprises a cosmetic vehicle

(II) 0.5-10 wt. % of at least 1 cpd. of formula (I) and its salt. (II) is either (a) hydroalcoholic soln., (b) a glycerin alcohol soln. or (c) a glycerine hydroalcoholic soln. R1 is H or NH2. R2, R3, and R4 are H, lower alkyl or NH2. R5 is H lower alkyl or OH, or when R1 is NH2 R5 can also be NH2. R1, R2 and R3 may not all be NH2. At least 1 of R1, R2 and R3 are NH2. The alcohol is EtOH or isopropanol, and is present in (II) in an amt. of 10-90 wt. %. The amt. of glycerine in (II) is 0.5-5 wt. %.

The tan colour obtd. is uniform, and can be removed by washing. (13pp)



FARB D13 15063 C/09 = US 4293-551
N-Amino-3,4,5-trihydroxy-piperidine derivs. - used as alpha-glucosidase inhibitors esp. in feedstuffs and for treating obesity, diabetes and hypolipoproteinaemia

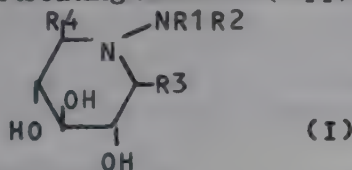
BAYER AG 10.08.78-DE-835069

B03 C02 (06.10.81) *EP---8-058 A61k-31/44 C07d-211/98

17.07.79 as 058348 (982MR)

N-Amino-3,4,5-trihydroxypiperidine of formula (I) and its salts are new. In (I), R1 is H, formyl, carboxamido, R5, COR5, CO2R5, CONHR5, CONR5R6, C5R5, C5NH2, C5NHR5, C5NR5R6, SO3H or SO2R5; R2 is H or R5; or R1-2 together form :CR8R9; R3 is H, OH, mercapto, NH2, CN, carboxyl, carboxamide, aminomethyl, sulphohydroxymethyl, OR5, SR5, NHR5, NR5R6, CO2R5, CONHR5, CONR5R6, CH2NHR5, CH2NR5R5, CH2NR5COR6, CH2NHSO2R5, CH2NR5SO2R6, CH2OR5 or CH2OCOR5; R4 is H, CH2OH, formyl, carboxyl, carboxamido, R5, CH2OR5, CHR5OH, CHR5OR6, CR5R6OH, CR5R6OR7, CR5O, CO2R5, CONHR5, CONR5R6 or CH2X (where X is F, Cl or Br); R5-7 are opt. branched or cyclic, (un)satd. aliphatic hydrocarbon gps. or aromatic or heterocyclic gps.; and R8-4 are each H or R5.

(I) are useful in treating diabetes. (18pp)



CHIM-★ D13 79615 D/43 ★US 4293-570
Confectionery prod. including cryptocrystalline sweetener - e.g. sorbitol, sprayed as heated aq. soln. cooled by compressed gas

CHIMICASA GMBH 02.04.79-US-026357

(06.10.81) A23g-03/30

02.04.79 as 026357 (295)

A cryptocrystalline, sweetener-containing product is prepared by spraying a heated, aqueous, low viscosity, high solids, sweetener solution as a fine spray into a vessel having a cooler atmosphere. The solution may be sorbitol, sucrose, fructose, manitol or glucose, at 180 to 315 deg.F and containing 70 to 99.5 per cent by weight sweetener.

Cool, compressed dry air is introduced into the heated spray nozzles. The heated solution is maintained hot until the moment of spraying. The air has a temp. of 40 to 120 deg.F and a pressure of 40 to 125 psi. The phase change from liquid to solid of the sweetener solution occurs without loss of moisture. Thus an atmosphere is formed in the vessel of a sweetener product with a particle size less than 5 microns. This is mixed with a food or confectionery product.

Used in the formation of confectionery products such as dietetic chocolate bars, chewing gum or candies. The sweetener particle size is small yet its preparation does not require expensive equipment. (9pp)

NEST D13 62286 C/36 = US 4293-571
Prepn. of purified protein hydrolysate for dietetic use - by hydrolysis, heat treatment, and ultrafiltration

SOC PROD NESTLE SA 09.03.79-CH-002278

(06.10.81) *BE-881-866 A23j-03

28.02.80 as 125480 (965PW)

Prepn. of purified protein hydrolysate comprises, hydrolysing an aq. soln. of proteins (I) to yield at least hydrolysate prods. free from (I) and protein fragments capable of acting as allergens. The soln. is then heat treated to denature the proteins not hydrolysed. The denatured proteins are then eliminated from the heat treated hydrolysate by ultrafiltration to obtain an ultrafiltration permeate constituting the purified hydrolysate free of (I) and protein fragments. Pref. the hydrolysis is carried out by enzymatic hydrolysis, esp. by using pancreatin. Pref. the

The prod. may be incorporated into foodstuffs intended for dietetic use etc. (3pp)

WISC ★ D13 79617 D/43 ★US 4293-573
Prepn. of frozen yoghurt contg. acid whey - improves properties and provides a use for acid whey

WISCONSIN ALURES FOUND 30.03.79-US-025615

(06.10.81) A23c-09/12

30.03.79 as 025615 (955RH)

In a method for preparing frozen yogurt contg. cream, condensed skim milk, sucrose, corn sweetener, stabilisers and 30-50% acid whey, a mixt. contg. a major amt. of the condensed skim milk and a minor amt. of the cream is pasteurised, cooled to incubation temp., inoculated with yoghurt culture and incubated. A second mixt. is formed of the remaining ingredients, and is pasteurised, cooled and mixed with the first mixt., to give a prod. contg. 22-35 wt. % solids, which is homogenised and frozen.

The process finds a use for acid whey, which has limited usefulness and is difficult to dispose of. The prod. has excellent flavour, and improved body and texture, and may have an increased protein content. (3pp)

NISW D13 15887 D/10 = US 4293-574
Mayonnaise prod. contg. soya bean protein emulsifier - prepd. by washing with alcohol and protease enzymolysis to given solubility

NISSHIN OIL MILLS KK 10.08.79-JP-101306

(06.10.81) *DE3029-896 A23l-01/24

21.02.80 as 123250 (965PW)

Prepn. of a mayonnaise food comprises solubilising an alcohol denatured soybean protein (I) with the protease until the solubility of the protein in 10% aq. trichloroacetic acid soln. has reached 15-35 (20-30) wt. %. The water-insoluble materials are sepd. to obtain refined soybean proteins, which are then emulsified together with edible oils, vinegars and seasonings. Pref. the alcohol denaturation of soybean protein is effected by washing with a water contg. alcohol of concn. 50-80 wt. %.

Egg is not used as emulsifier. The cholesterol content of the prod. is reduced. (5pp)

DUPO D13 00324 Y/01 = US 4293-575
Mycellium conversion to human food - by texturing in convergent gap between horizontal plate and inclined endless belt

DUPONT DE NEMOURS CO 13.06.75-GB-025387

(D16) (06.10.81) *DE2626-035 A23j-03 A23l-01/28

31.12.79 as 108841 (+ 11.6.76; 22.3.78-US-694989; 889041) (006AT)

Fungal mycelia of reduced turgor, and of solids content 20-35wt. %, is extruded through a spinneret plate to form filaments which are then compacted to have textured structure resembling meat, fish etc.

Specifically the spinneret comprises one or more meshes of different sizes, the upstream mesh being smaller than the downstream mesh. Pref. the pressure range is 100 to 200 psi. (5pp)

EFFE- D13 14161 B/08 = US 4293-576
Animal food, esp. for cats and dogs, based on animal blood - is prepd. by coagulating sepd. blood phases opt. with complete blood

EFFEM FOODS PTY 15.08.77-AU-001233

C03 (06.10.81) *BE-869-744 A23k-01/04

10.08.78 as 932650 (982MR)

Mfr. of a food prod. simulating meat from an anticoagulant treated, coagulable blood fluid is carried out by the controlled, chemically-stimulated coagulation of the blood fluid under controlled temp. conditions.

Process comprises coagulating the blood fluid in the presence of an exudation-inhibitor and a coagulation stimulant, while maintaining the blood fluid at within about 10 deg.C, either above or below the body temp. of the animal from which the blood has been derived to induce coagulation.

The blood fluid is (a) the whole blood, (b) a plasma phase, (c) a mixt. of up to 40% of a haemoglobin phase and a plasma phase, (d) whole blood and plasma phase, (e) whole blood and haemoglobin phase or (f) whole blood, plasma phase and haemoglobin phase. (4pp)

FRRR D13 40487 D/23 = US 4293-577
Saccharose-free carries risk-reducing diet confectionery - contg. high water dough prepd. with fructose in three steps

FERRERO P & CIA SPA 22.11.79-IT-069262

(06.10.81) *DE3020-127 + A23g-03

27.06.80 as 163893 (982TM)

Baked pastry prod. free from sucrose, is formed by a wheat flour-based cellular matrix, sweetened with fructose and opt. sorbitol.

The prod. is obtd. by (a) dissolving crystalline fructose in water

form of powder or fresh eggs to obtain an emulsion contg. 150-200 pts.wt. water and at least 55 pts. wt. fructose for every 100 s.wt. flour; (b) introducing 50-80 pts. wt. starch, 15-25 pts.wt. gluten, 40-60 pts.wt. powdered skimmed milk, 100 pts. wt. flour and leavening agent to obtain a dough; and (c) baking the dough to obtain a prod. contg. 17-22 wt.% moisture. The cellular matrix is soft, is not crisp and is artificially leavened. (6pp)

NFL ★ D13 79619 D/43 ★ US 4293-579
Enhancing flavour of foodstuffs - by addn. of 3,5-di:methyl-
propyl-1,2,4 tri:thiolane or its cis- or trans-isomers

INT FLAVORS & FRAGR INC 31.07.80-US-174252 (24.11.78-US-963176)

E13 (06.10.81) A231-01/22
1.07.80 as 174252 C.1.p.4259507 (+ 3.08.79-US-063377) (1248BZ)
Flavour of foodstuffs is enhanced or augmented by addn. of 0.0005-250 ppm 3,5-di-(2-methylpropyl)- 1,2,4-trithiolane (I) or its cis- or trans-isomers. Cpd. (I) and its isomers impart a bacon-like and pork rind-like aroma and flavour. They are described in US.4259507 (Der.28994 D/16). (20pp)

MAYR ★ D13 79620 D/43 ★ US 4293-580
Whipped and frozen fruit or vegetable juice concentrates - contg. whipping protein and opt. stabilisers

MARYLAND CUP CORP 23.11.79-US-096889

(06.10.81) A23g-09 A231-02/02

(3.11.79 as 096889 (955RH))

In the prodn. of a frozen fruit or vegetable juice concentrate, one or more whipping proteins or emulsifiers is added to single strength juice, and the mixt. is blended in amts. up to 90% of the final compsn. with a juice concentrate. The mixt. is subjected to simultaneous whipping and freezing at about 18-30 deg.F.

The mixt. is soft and spoonable. It is possible for a consumer to remove a small amt. of the concentrate for reconstitution, and return the rest to the freezer. Volatile flavouring materials are retained better than in concentrates prepd. by slow freezing. (4pp)

NEST D13 35022 C/20 = US 4293-581
Animal feed prodn. from coffee grounds - by alkaline saponification, acidification and drying, to reduce cafestol content

SOC PROD NESTLE SA 03.11.78-CH-011332

C03 (06.10.81) *DE2943-021 A23k-01/14

(6.12.80 as 216960 (+ 1.11.79-US-090148) (945TM))

Animal feed component is produced by (1) saponifying spent coffee grounds in an aq. reaction medium; (2) acidifying the medium to pH below 6; and (3) drying the medium. Stage (1), in which cafestol and kahweol esters are saponified is pref. carried out at pH 8-13 and at 90-100 deg.C over 0.5-2 hours.

The saponified grounds may be subjected to an oxidn. treatment. This may be with H₂O₂ at 90-100 deg.C for 0.5-3 hours or with air at 110-160 deg.C. Acidification is pref. with edible acid to pH 3-5. Used to feed e.g. pigs, ruminants and goats. (3pp)

SIMP- ★ D13 79621 D/43 ★ US 4293-582
Potato dough for extrusion and forming - contg. oil or fat to reduce feathering and increase resistance to over-mixing

SIMPLLOT JR CO 09.06.80-US-157257

(06.10.81) A231-01/21

(09.06.80 as 157257 (955RH))

A dough for formed and extruded potato prods. contains 45-75 wt.% cooked mashed potato, 9-20 wt.% dehydrated potato flakes, 0.12-below 2.0 wt.% of liquid process oil which is an animal or

vegetable fat or mixt., and 17-27 wt.% of an aq. slurry of an effective amt. of binding agent.

The dough is less prone to feathering on extrusion, and is less susceptible to damage by overmixing.

Suitable process oils include e.g. palm oil, soybean oil, safflower oil, etc. The dough may include other additives e.g. partial glycerides, lactylates or other emulsifiers or lubricants. The binding agent is esp. a mixt. of microcrystalline cellulose and guar gum. In a pref. embodiment, the process oil is incorporated by including in the dough mixt. a quantity of par-fried potato eliminations i.e. broken segments of potato. When eliminations are used, the permissible level of process oil used may be raised to 4.0%. (5pp)

NEST D13 60835 C/35 = US 4293-583
Removing bitter components from protein hydrolysate - using ligneous plant adsorbent, pref. carob pods

SOC PROD NESTLE SA 26.01.79-CH-000788

(06.10.81) *EP-14-362 A23j-03

23.01.80 as 114680 (945TM)

Enzymatic hydrolysate of whey protein is debittered by contact with an adsorbent consisting of desugared carob particles at 10-60 deg.C. The adsorbent may be suspended in the protein hydrolysate or the hydrolysate may be percolated through a column filled with adsorbent. Pref. 10-400 ml hydrolysate is contacted with 1g adsorbent.

The adsorbent may be pretreated by washing with acid and/or stripping with steam. Pref. the adsorbent particles have dia. 0.3-5 mm. Treated lactalbumin hydrolysates may be incorporated into dietetic preparations. (4pp)

CHRI/ D13 30451 A/17 = US 4293-655
Ensilage process for vegetable or animal substances - recycling juice from bottom of container to top

CHRIST C 14.10.76-FR-030874

(06.10.81) *DE2736-836 C12m-01/02

02.07.79 as 053801 Div ex 4242361 (+ 17.8.77-US-825487) (006AT)

Appts. for making sauerkraut comprises a vat with a flexible sealing cover and having a liq. recirculation pipe connecting the bottom vat section of the top section. Fresh liq. can be fed into the pipe, pref. through an inlet valve.

Specifically the pipe runs through a heat exchanger to heat or cool the recirculation liq., and the pipe includes a flow-control valve and has a diffuser outlet in the vat top section. (7pp)

LIFE- ★ D13 D/43 ★ ZA 8005-473
Sugarless coating application to chewing gum etc. - using single coating syrup contg. sorbitol, adhesive or binder, filler antistick component dispersing agent etc.

LIFE SAVERS INC 24.09.79-US-077968

(24.07.81) A23g

04.09.80 as 005473 (AT)

Sugarless coating contg. sorbitol is applied to chewing gum pieces, confections, as well as medicinals in the form of pills or tablets, by using a single coating syrup contg. sorbitol and/or other non-sugar sweeteners, an adhesion or binder component, e.g. gum arabic, a filler-anti-stick component e.g. calcium carbonate, and a dispersing agent, e.g. titanium dioxide. (20pp)

See Also

D12 US 4293098 D16 US 4293648 D23 J8 1041630
D25 CA 1109485

D14: FOODSTUFF MACHINERY

ZETT/ ★ D14 D/43 ★ BR 8002-033
Domestic ice cream maker
ZETTERMANN A 27.03.80-BR-002033
(06.10.81) A23g-09/04

META- ★ D14 D/43 ★ BR 8104-780
Par boiling and pre cooking machine
METAL LEITZKE LTDA 21.07.81-BR-004780
Q76 (06.10.81) A23b-09 A231-03/18 F26b-17/20

FREU- ★ D14 77986 D/43 ★ DE 3026-367
Food preservation in vessel contg. preservation device - consisting of sealed ethanol vapour-permeable foil-contg. package enclosing ethanol-contg. liq.

FREUND IND CO LTD 04.04.80-JP-043567

(15.10.81) A23b-04

11.07.80 as 026367 (200KB)

Food-preservation device, to be placed in a container together with the food to be preserved, consists of (a) a sealed wrapping, produced at least in part out of a foil having EtOH vapour-permeability no less than 20 g/sq.m./24 hrs./50% relative humidity/40 deg.C and (b) an enclosed liq. contg. no less than 50 vol.% EtOH.

Food is effectively preserved against fungus attack and decay.

Sealed aq. EtOH-wetted cotton, cloth or paper can be used as a towel for sterilising fingers before handling food. No EtOH adsorbent is required. The EtOH vapour source can be very small.

The liq. contg. at least 50 vol.% EtOH can be sealed, in wrapping, as a gel. In preparing the device, cotton, fabric, paper, sponge, webs and/or paper materials are wetted with an aq. EtOH soln. and sealed in wrapping. (32pp)

TIBI- ★ D14 78184 D/43 ★FR 2478-272
Multi-fuel adaptable hearth for oven to cook food prods. - will accept solid fuel fire-box or burner for oil and gas

TIBILETTI SA 12.03.80-FR-005925

Q74 (18.09.81) A21b-01/02 F24c-01/06

12.03.80 as 005952 (448AT)

A multi-fuel, adaptable hearth for an industrial, commercial or domestic oven for cooking food prods is of annular cross-section and open-fronted to accept a coaxial cylindrical fire-box for solid fuel as an alternative to a conventional burner for gas or fuel oil. Pref the fire box projects to a slight extent from the open end of the hearth, the projecting length being lagged with thermal insulation.

The fire-box cylinder which extends into the oven hearth contains a grate for solid fuel which has an upstanding wall at the inner end to limit the forward movement of fuel/ash the outer end of the firebox pref has an outlet through which ashes can be raked for disposal. The cylinder contg the grate can pref be withdrawn coaxially through a front door on the firebox.

The oven can be heated by the fuel which is most economical and/or most readily available. (6pp)

AGRO- ★ D14 D/43 ★HU T020-781
Can sterilising container - adaptable to accept cans of different shapes and sizes

AGROBER MEZOGAZDASA 05.06.80-HU-001418

(28.09.81) A231-03/04

KECS- ★ D14 D/43 ★HU T020-783
Cleaning raw materials for canning - esp. sepg. stones, sand, leaves, etc. from peas

KECSKEMETI MEZOGAZD 31.10.79-HU-KE1066

P43 (28.09.81) A23n-15 B07b-13/10 B07b-15

KONZ- ★ D14 D/43 ★HU T021-113
Determination and control of liquid level - esp. in hydrostatic sterilising appts. in canning plants

KONZERVES PAPRIKAI 06.02.80-HU-000268

S02 X15 (28.09.81) G01f-23/12

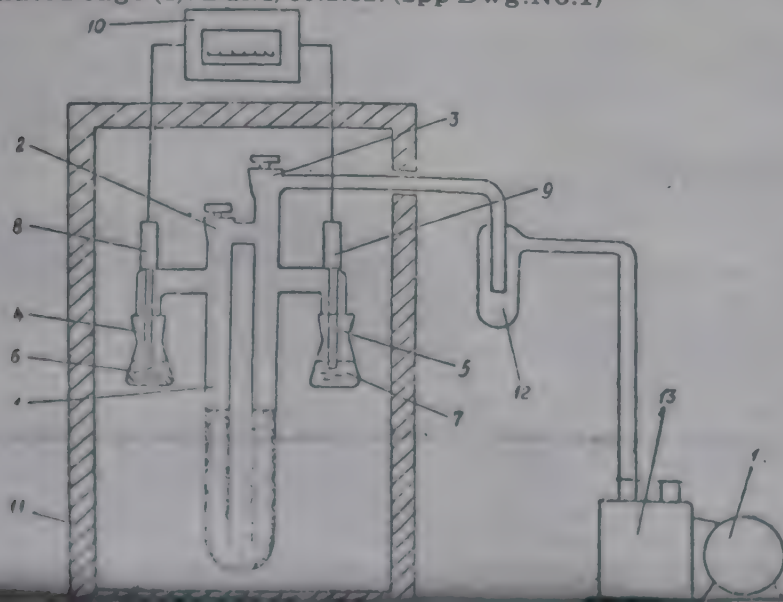
MOME = ★ D14 79327 D/43 ★SU -800-871
Determn. of water activity in food products - by putting sample in one container and distilled water in another, equalising pressure and measuring pressure difference

MOSC MEAT DAIRY IND 26.03.79-SU-742467

S03 (30.01.81) G01n-33/02

26.03.79 as 742467 (29MB)

Equipment to determine the activity of water in food products, to control processes in food production and product quality, has container (4) for the samples (6), with thermometer (8). Determination accuracy is increased, by adding a second container (5) with distilled water (7) and a thermometer (9), plus a liquid monometer (1), vacuum-pump (13) and potentiometer (10). The latter is connected to the thermometers and the liquid manometer to the vacuum-pump(13) and the two containers (4,5). All containers and the manometer are enclosed in a heat-insulated cage (4). Bul.4/30.1.81. (2pp Dwg.No.1)



FURN/ ★ D14 79358 D/43 ★SU -801-840
Fine solid suspension sepn. flocculation unit - has central mixing chamber with flocculation agent inlet with flocs gravity fed into main sedimentation chamber

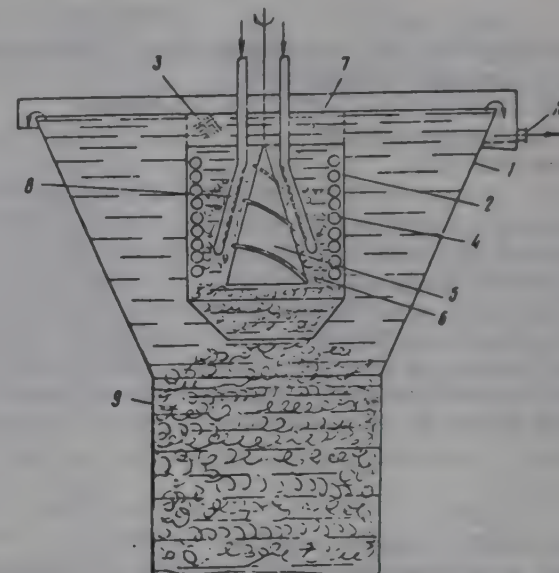
FURNICHENKOV V 15.02.78-SU-580380

A97 J01 (10.02.81) B01d-21/08

15.02.78 as 580380 (29VE)

Flocculating device, for the washing of highly-disperse solids, e.g. food, suspensions to increase the rate of pptn. of the solid phase using flocculating reagents, has vertical body (1) with its top section widening out and a collecting gulley around the top edge. A cylindrical chamber (2) is disposed in the centre of the body and in its top part for the flocculation; it has a conical lower part and pipes (7, 8) to admit the reagent and the original suspension.

Productivity is increased and loss of solid phase is reduced, by adding a mixer (5) along the centre axis of the body and inside the flocculation chamber (2), with the pipes (7,8) disposed down the sides of the conical mixer. The pipes have holes to make jets directed towards the mixer. Inside the flocculation chamber walls are heaters (4), and the top ends of the walls are perforated (3). (3pp)



BROW- D14 19576 D/12 = US 4293-354
Ice-cream container sealing machine - has inner and outer formers and uses fold on lip of container onto which plastics closure is clamped and heat sealed

BROWN CO 30.08.79-US-071243

Q31 Q39 + P71 P72 (06.10.81) *DE3032-682 B65b-07/28 + B29c-27/12 B30b-15/34

30.08.79 as 071243 (006AT)

A lid with a downwardly-facing rim channel is secured to the folded-over lip of a container body by securing the inner wall of the lid rim channel to the interior surface of the folded-over lip, using an anvil and punch appts. for pressing portions of the channel inner wall into the material of the lip.

Plastic lids can be securely fixed to fibreboard bodies, e.g. of ice cream containers, against leakage and accidental dislodging. (13pp)

ZYLK/ D14 77675 D/42 = WP 8102-845
Filter sock for milk pipeline system - comprises folded spun bonded polyester fibre sheet with ultrasonic edge welds

ZYLKAKR (MERI) 31.03.80-US-135226

A88 (15.10.81) *US4292-180 B01d-29/30

31.03.81 as U00417 (1358RP) (E) US4141128 US4164400 CH-582536 1.Jnl.Ref N(DE DK GB NL SE) E(FR)

The sock comprises a longitudinally folded sheet of randomly oriented spun-bonded synthetic fibres, pref. polyester, with a weight of 1.5-4.0 oz/yd². The overlying sheet layers are joined by an ultrasonic weld along the longitudinal edges and a second along a pair of end edges.

The welds comprise a series of alternating depressions and projections to increase weld strength. The fabric provides uniform filtering characteristics and has a smooth surface so that the sock can be installed on a gasket without the need for moistening. The ultrasonic bonds reduce bulk so that more socks can be packed in a box. (9pp)

MOOR- ★ D14 D/43 ★ZA 8002-580
Industrial cooking pot - with central vertical shaft forming part of agitator assembly

MOORE A PTY LTD 30.04.80-ZA-002598 (03.05.79-ZA-002137)

P28 (21.07.81) A47J

30.04.80 as 002598 (AT)

An industrial cooking pot comprises an upright vessel having

The assembly further includes agitators extending outwardly from the shaft and terminating adjacent the inner wall of the vessel. At the lower end of the vessel there is a valve which controls flow from a bottom discharge opening of the vessel. Adjacent to the valve the agitator assembly includes a screw, blades or propellers for displacing the contents of the lower part of the vessel vertically to create a circulatory flow. The vessel tapers downward towards the opening and the screw, blades or propellers can be in the smallest dia. part of the vessel. (9pp)

D15: WATER TREATMENT

WASS- ★ D15 77865 D/43 ★ DD-149-799
Ultra-pure water prepn. in laboratory - by catalytically oxidising with peroxy di: sulphate in acid soln. before distn.

INST WASSERWIRTSCH 10.03.80-DD-219561

U11 (29.07.81) C02f-01/04

10.03.80 as 219561 (200KB)

Crude water of opt. quality, but esp. deionised or distilled water, is (a) ultra-purified by oxidising with peroxydisulphates, esp. K peroxydisulphate, at 70-80 deg. C, in the presence of acids, esp. H₂SO₄ and standard catalysts, esp. Ag ions, before (b) distn.

The water is free from organic cpd. traces and can be used as reference-water in organic analysis, semi-conductor industry and medicinal field. The oxidising agent is charged to the reaction mixt. as a satd. aq. soln., either continuously or batchwise, using mixing devices. Excess oxidising agent is completely decomposed on heating from reaction temp. to water b.pt. (5pp)

UEBE/ ★ D15 77885 D/43 ★ DE 3010-365
Portable settling tank - designed as shipping container with ascending flow between parallel baffles

UEBERALL P 14.03.80-DE-010365

(15.10.81) B01d-21/02 C02f-01/52

14.03.80 as 010365 (39HM)

A portable settling tank, specially for water and sewage, is designed as a rectangular box with parallel baffles which divide the ascending flow into several parallel paths. The sinks are deposited on the baffles and as the tank is mounted in an inclined position, the deposited particles can slide down to a sump where they are periodically discharged.

The boxes are designed in the dimensions of standard shipping containers which facilitates their transport by land and sea. They can be produced at low cost and have a greater utilization factor of the space. (19pp)

SCHD ★ D15 77951 D/43 ★ DE 3013-881
Waste water aeration in equaliser and storage basins - for partial biological degradation of industrial waste water dirt load at constant redox potential

SCHERING AG 10.04.80-DE-013881

(15.10.81) C02f-03/12

10.04.80 as 013881 (200AT)

In the partial biological degradation of an industrial waste water dirt load by aeration in an equalising- and storage basin, aeration takes place at a constant redox potential at -250 to -500 mv, at pH 7. Aeration is controlled over the whole measured redox potential and the redox potential is thus kept constant. Min. material required for bio-mass growth is added to the waste water in quantities such that bio-mass losses resulting from dilution are balanced out and the redox potential does not deviate from the constant value. The addn. is controlled in function of redox potential deviation from the theoretical value and of aeration intensity.

Degradation rates up to 50% are achieved in over 24 hrs., without flocculation, as opposed to 10-20% by a standard process. The O₂ transfer values are increased to 35 kg O₂/hr, as opposed to 20 kg O₂/hr with a standard aeration device. (5pp)

SACH- ★ D15 77960 D/43 ★ DE 3014-082
Water sterilisation appliance - with spiral grooves for water flow between cathode cylinder and anode wires

SACHS SYSTEMTECH GM 12.04.80-DE-014082

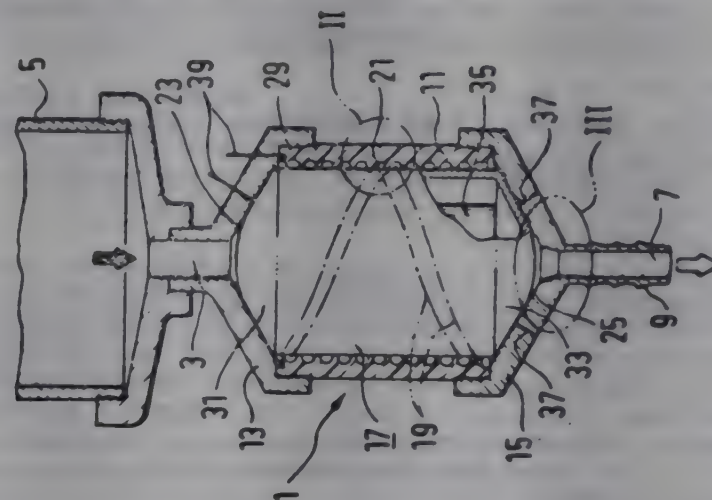
X25 (15.10.81) C02f-01/48

12.04.80 as 014082 (39BZ)

A water sterilisation appliance, based on the anodic oxidation principle, has a cylindrical purification chamber with an inlet on top and an outlet at the bottom. Spiral grooves along the inside wall act as restrictor channels for the water flow between the electrodes. One of them is a cylinder and forms the inner wall of the restrictor channels; the other consists of wire spirals which are embedded in the grooves.

This appliance has a uniform purification action, even at very

slow flow rates. No residual water is left in the cell after use so that no germ nuclei can arise. (13pp Dwg.No.1)



SACH- ★ D15 77967 D/43 ★ DE 3014-130
Water sterilisation appliance based on anodic oxidation - with water flowing from permeable anode to cathode

SACHS SYSTEMTECH GM 12.04.80-DE-014130

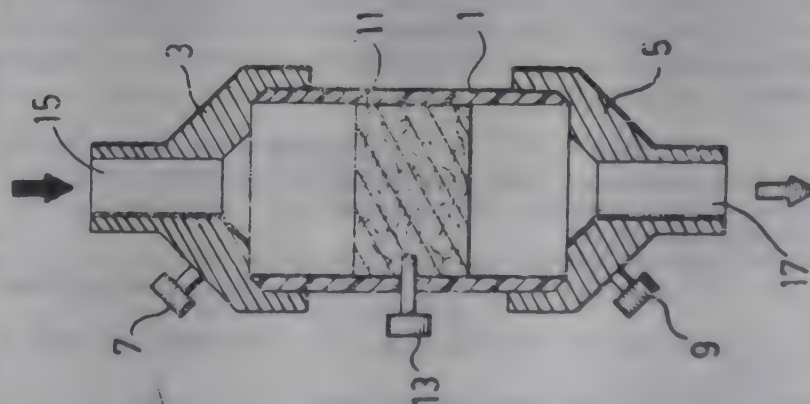
X25 (15.10.81) C02f-01/46

12.04.80 as 014130 (39RH)

A water sterilisation appliance, based on anodic oxidn., consists of a tubular purification cell through which the water passes from the inlet to the output. The anode is designed as a permeable, electrically conductive element at a distance from the cathode or cathodes; if two cathodes are used, one is arranged upstream and the other downstream of the anode.

This combines an improved sterilisation action with a compact design.

The electrode cell contains a tube (1), made of insulating material, which is closed by two cathode caps (3,5), connected by terminals (7,9) to the minus pole of a power supply. An anode element (11) in the centre consists of electrically conductive material which is permeable to water (wire mesh, porous sinter metal or carbon) and is connected to the plus pole by a terminal (13). (9pp Dwg.No.1)



VNOR/ ★ D15 77972 D/43 ★ DE 3014-169
Floating air compressor - with open air motor and submerged compressor resting on floats

VON NORDENSKJOLD R 14.04.80-DE-014169

Q56 (15.10.81) B01f-03/04 C02f-07 F04d-25/02

14.04.80 as 014169 (38AS)

Compressor for use during hydraulic constructional work or for the aeration of ponds or clarification basins rests on at least one float. The motor is arranged to remain above water level and drives the totally submerged compressor section through a vertical shaft. When two floats are used, one is designed as a silencer for the air intake and the other for the air delivery.

An open-air motor has a better efficiency than a submersible motor and requires less power. Floating design saves the

infrastructure and cools the compressor efficiently. It also improves the flexibility in the application of the compressor in different localities. (15pp)

MULLER/★ D15 77987 D/43 ★DE 3027-454
Settlement tank for sewage sludge - has two funnel shaped compartments, first for coarse, second for fine precipitation
MULLER H 27.07.79-AT-005183
(15.10.81) B01d-21/02 C02f-01

19.07.80 as 027454 (236BZ)
A settling or clarification tank for sepg. finely divided substances from liquids is intended esp. for pptn. in sludge processes in biological sewage purification and water treatment.

A double-funnel tank of two funnel-shaped basins, one inside the other, of concrete, steel, plastics, etc. is used; the outer basin is used for coarse sludge settlement and the inner for fine sludge settlement or vice versa. Pref., in order to reduce drastically the speed of entry of the effluent into the funnel-shaped basin, either a metal plate contg. slits or holes is used or an assembly of a number of plates at specific spacings. (9pp)

URAN- D15 38249 Y/22 = DS 2550-751
Solids extn. from liqs., by adsorption - esp. minerals, e.g. uranium, from waste liqs. or sea water
URANERZBERGBAU GMBH 12.11.75-DE-550751
J01 K05 M25 (15.10.81) *DE2550-751 B01j-19/04
12.11.75 as 550751 (39HM)

Method for the recovery of dissolved, suspended or chemically fixed substances from a liquid in an ascending flow, e.g. the recovery of uranium from sea water, is based on stabilising the flow resistance through an absorber bed and on making it uniform by preceding the bed by a device offering resistance to the flow, e.g. a grating or mesh. The absorber particles are arranged in a fluidised bed with a cross-sectional area which increases in the ascending direction so that the flow velocity is gradually reduced.

The absorber particles are either kept in layers at the same level or they sink slowly, as their weight rises because of adsorption, from the charging to the discharging point. Such a method reduces contact and friction to a minimum and can be carried on continuously. PS (7pp)

RHON D15 03914 C/03 = EP G006-777
Organic, partic. acrylic polymer prepn. - by UV irradiation of thin film of monomer aq. soln.

RHONE-POULENC INDUSTRIES 09.06.78-FR-017857
A14 (14.10.81) *EP---6-777 C08f-02/46 + B01d-21/02
30.05.79 as 400341 (922HM) (F) DE2546279 FR2327258 E(BE DE FR GB IT LU NL SE)

In a process for UV polymn. of an aq. soln. of olefinically unsatd. monomers (I) as a thin layer on a mobile support, the atmos. above the thin layer is kept moist throughout polymn. including the stage when the aq. soln. has been converted to the solid state by the polymn. (I) includes (meth)acrylamide, (meth)acrylic, methallyl sulphonic and vinylbenzene sulphonic acids, salts or esters, N-vinylpyrrolidone, 2-methyl-5-vinyl-pyridine and quaternised aminoalkyl (meth)acrylates used in a concn. of 30-90 wt. % in a layer pref. 3-8 mm thick and irradiated with light of pref. wavelength 300-450 mmicrons under an atmosphere pref. greater than 80% satd. The polymers obtd. are useful flocculants and are largely free of water-insoluble fraction of the onion-skin type. (6pp)

CHFS D15 48329 C/28 = EP --37-590
Quat. (meth)acrylyl urea cpds. and their (co)polymers - useful as flocculation, sedimentation, dewatering and retention agents, e.g. for sludge and paper

CHEM FAB STOCKHAU 27.12.78-DE-856384
A41 E16 F09 (A14 A97) (14.10.81) *DE2856-384 C02f-01/56 C08f-20/80
21.12.79 as 104251 (018BZ) (G) No-Citns. E(AT BE CH DE FR GB IT LU NL SE)

New quat. (meth)acrylylurea cpds. (I) have the formula
 $H_2C = CX-CO-NH-CO-NH-(CO)_m-(CH_2)_n-NR_3 + Z$
(in which X is H or Me; R is 1-4C alkyl; m = 0 or 1; n = 1, 2, 3 or 4; and Z is a salt-forming anion, e.g. a halide ion).

(I) are prepd. by (a) reacting haloalkyl or haloacyl isocyanates of formula

$OCN-(CO)_m-(CH_2)_n-Z$
with alpha,beta-unsatd. carbonamides of formula

$H_2N:CO-CX=CH_2$
giving halogen-substd. ureas (II) of formula
 $CH_2 = CX-CO-NH-CO-NH-(CO)_m-(CH_2)_n-Z$

(in which Z is halogen, pref. Cl, Br or I) and (b) quaternising (II) with a trialkylamine of the formula NR_3 (pref. NMe_3) at 20-100 deg. C and 1-4 bar in a solvent (aliphatic or aromatic hydrocarbon, alcohol and/or ketone, pref. acetone).

recurring units of the formula

$-CH_2-CX(NH-CO-NH-(CO)_m(CH_2)_n-NR_3(+Z(-))-$

and opt. 4-96 wt.% units of other vinyl monomer(s). The polymers are soluble in water, giving solns. of low viscosity, and are resistant to hydrolysis due to the presence of very stable urea groupings. (15pp)

ICIL ★ D15 78072 D/43 ★EP --37-659
Waste-water treatment with oxygen under hydrostatic pressure - regulated by movable weir to minimise pump energy
IMPERIAL CHEM INDS LTD 03.04.80-GB-011384
(14.10.81) C02f-03/02

18.03.81 as 301161 (295AT) (E) GB1025771 US3103488 DD-104280 E(BE DE FR GB IT NL SE)

Waste water is treated by flowing it through a downcomer which is connected at its lower end to a riser. Oxygen is added to the water as it passes through the downcomer. Waste water is continuously supplied to the top of the downcomer and water from the riser enters a header tank from which a portion of the treated water is recycled to the top of the downcomer. The hydrostatic pressure at the bottom of the riser is controlled by adjusting the depth of water in the header tank. This depth is controlled by a weir which may be manually or automatically regulated.

The appts. treats waste water including domestic sewage, farm effluent or food factory wastes. Adjusting the hydrostatic head on the waste water enables the required treatment to be provided while minimising the energy consumed in pumping the liq. (15pp)

THOE ★ D15 78076 D/43 ★EP --37-670
Bottled water carbonating unit - with bulb illuminating bottle to give decorative effect

THORN CASCADE LTD 02.04.80-GB-011043
W05 (14.10.81) A231-02/26

23.03.81 as 301234 (1358HM) (E) GB-399352 US4082123 FR2451717 US3862646 GB1582250 E(AT BE CH DE FR GB IT LI LU NL SE)

Unit includes a casing to mount a liq. CO₂ cylinder and a transparent shatterproof housing to contain a bottle of water. A connection for the cylinder is linked to a nozzle extending downwardly in the housing, with a stopper for engaging the bottle neck and a base for supporting the bottle engaged with the stopper.

A manually operable valve allows CO₂ flow to the nozzle and a safety valve is connected to the bottle interior when the stopper is engaged. A light bulb illuminates the bottle at least during aeration so that the illumination is picked up by the CO₂ bubbles and gives a pleasing visual effect. The housing pref. has spaced walls of transparent plastics, e.g. polycarbonate. (18pp)

GHEZ/★ D15 78142 D/43 ★FR 2477-896
Purificn. of water by up-flow through sludge in decanter - with intermittent sudden downflow by change in hydrostatic level

GHEZAIL F 12.03.80-FR-005543
(18.09.81) B01d-21 C02f-01/52

12.03.80 as 005543 (448AS)

A process and an installation for the purificn of water etc the process is of the type in which the water, pretreated with additives as required, is introduced into the lower part of a decantation tank in which the water rises through a bed of sludge.

Improvement is that the water is fed continuously into a compartment below a perforated partition in the base of the tank. Water rises through perforations except when periodically flow is reversed so that a selected vol of water flows suddenly downwards through the partition perforations. The sudden downflow is pref caused by an abrupt change in the hydrostatic level of water in the decantation tank.

Used for the purificn of water esp for drinking and industrial purposes. Highly efficient decanting is achieved. (11pp)

WILL-★ D15 78203 D/43 ★GB 1600-749
Liq. dispensing system for water treatment - has hydraulic piston cylinder unit reciprocating ram in sludge cylinder synchronously with metering pump supplying additive

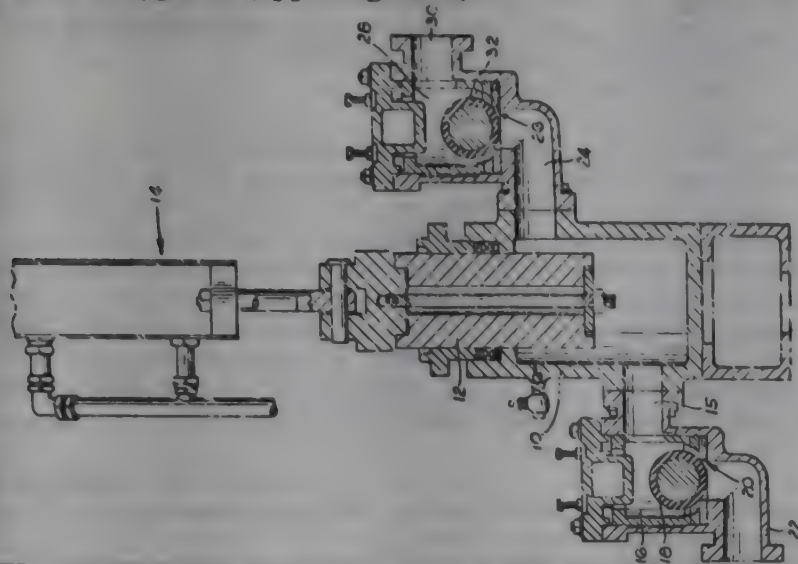
WILLETT T & CO LTD 22.07.77-GB-030813
Q56 (21.10.81) F04b-13 F04b-15/02 F04b-23/06

03.05.78 as ----- (973DH)

The system comprises a main pump cylinder (10) containing a ram (12) which is connected to, or forms part of, a piston of a hydraulic cylinder (14). The cylinder (14) reciprocates the ram vertically. The main cylinder is connected via inlet (15) to an inlet chamber (16) housing a loose ball (18) above a seat (20) connected to the sludge supply.

The upper end of the main cylinder is connected via outlet (24) to a ball chamber (28) having a sludge outlet (30) connected to a filter press. An upward stroke of the ram draws outlet ball (32) onto its seat and lifts inlet ball (18) off its seat so that so that sludge flows into cylinder (10). On the return stroke the reverse

occurs and the sludge is ejected through outlets (24,30) and additive is supplied. (7pp Dwg.No.2)



NATU- ★ D15 78214 D/43 ★ GB 1600-901
Fertiliser mfr. by mixing sewage sludge with burnt lime - giving stable, odourless mixt. of high pH and free of pathogenic organisms

NATUMIX FERTILISERS 07.06.77-NZ-184318

C03 (21.10.81) C05d-03/02 C05f-03 C05g-01

22.02.78 as 007119 (914NS)

Prepn. comprises mixing together (A) sewage sludge (i.e. the prod. or residue obtd. following aerobic and anaerobic processing of raw sewage, such as human or animal sewage) and (B) burnt lime. The amt. (A) is such that the pH of the mixt. is raised to a value not exceeding 13.

Pref. the compsn. contains not more than 2.5 wt. pts. of burnt lime per wt. pt. of sewage sludge, and has a pH of 9-13, esp. 11.5.

The burnt lime produces sufficient heat when added to the sludge that it kills pathogenic organisms in the sludge; and it also raises the sludge to a pH where it can be readily converted into plant food. These effects can be achieved quickly (within a matter of hours) without having to dewater or digest the sludge. (2pp)

HAMW- ★ D15 78215 D/43 ★ GB 1600-979
Anaerobic digestion of organic waste - with recirculation of waste gases to agitate digester contents and prevent pressure build-up

HAMWORTHY ENG LTD 23.02.77-GB-007562

(21.10.81) C02f-03/28

23.02.78 as ----- (295MR)

Natural organic waste is anaerobically decomposed in an appts. which includes a feed tube extending downwardly into one side of a digester. An inclined outlet tube extends upwardly from the digester on its opposite side at an inclination such that as waste is introduced the liq. overflows through the outlet tube. Solids which have not settled in the digester settle out in the outlet tube and fall back into the digester.

The digester has a gas outlet and a bottom diffuser. Gases are pumped from the gas outlet by a gas pump back to the diffuser which includes a perforated flexible membrane with holes sufficiently fine to open only when pressurized with gas from the pump.

The gas pump is simple and easy to maintain. Excessive pressure build-up within the digester is prevented. The appts. can be of modular construction and made in a range of sizes. (6pp)

THET- D15 40079 B/22 = GB 1601-036
Bacteriological closed loop toilet waste system - purifies waste to produce flushing liq. for recycle to toilet station

THETFORD CORP 11.11.77-US-850559

Q42 (21.10.81) *EP--2-115 E03d-05/*

19.05.78 as 020887 (006HM)

Multistage treatment of toilet waste, includes flushing ingoing material to a biological stage for removal of organic material by bacteria, the flush liq. employed being liq. filtered from a later stage and recycled after the biological stage has nitrified ammonium cpds. before the filtration step.

The biological stage breaks down the cpds. in the recycled liq. into N₂ gas and bicarbonates, pref. assisted by mechanical agitation. (7pp)

FARR- ★ D15 78236 D/43 ★ GB 2073-602
Diffuser for aerating and agitating liq. - has non return valve for preventing back flow of liq. into gas supply pipe

FARRER ACTIV SLUDGE 28.03.80-GB-010551

(21.10.81) B01f-03/04 B01f-13/02

28.03.80 as 010551 (67HM)

Diffuser comprises an enclosure which is immersed in the liq. having a porous part through which gas can pass from the interior to the exterior of the enclosure. Gas under pressure flows

from a supply pipe into the enclosure through a passage having a non-return valve which prevents any liq. which may seep into the enclosure from flowing back along the passage into the supply pipe.

Used in aeration and agitation of aqs. suspensions of sewage and activated sludge in sewage treatment plants. Liq. flow into the supply pipe which may cause corrosion or give rise to the formation of slime and sediment is prevented. (6pp)

LEIT/ ★ D15 D/43 ★ HU H002-678
Truck-mounted collector-processor for liq. faeces - contains homogeniser and aerator and burns contaminated air in engine

LEITGEB J 05.11.79-HU-LE0845

Q35 (28.09.81) B65f-03

SZAL/ ★ D15 D/43 ★ HU T020-733
Processing liquid manure - by phase sepn. and separate utilisation of solid and liq. phases, the latter in fish farming

SZALKAI S 01.07.76-HU-SA2938

P11 P14 (28.09.81) A01c-03 A01k-23

MAGY ★ D15 D/43 ★ HU T020-817
Filter for liquids, partic. radioactive aq. effluents - comprises low-specific-gravity inert granulate

MTA IZOTOP INTEZETE 29.05.78-HU-MA2988

K07 (28.09.81) B01d-25/06

SZEN- ★ D15 D/43 ★ HU T020-818
Appts. for purifying raw or contaminated water - contains chemical clarifiers, mechanical filter and adsorption filter

SZENTENDREI VASKAZ 19.01.79-HU-SE1927

(28.09.81) B01d-29 B01d-35/22

ORSZ- ★ D15 D/43 ★ HU T020-824
Complex mineral composites for clarifying liquids - e.g. wine, beer or cordials or liq. fertilisers or aq. effluents

ORSZAGOS ERCASVANY 28.03.80-HU-000725

(28.09.81) B01d-57/02 C01c-33/30

FOVA- ★ D15 D/43 ★ HU T020-884
Aerator for mixing liquids - with spaced aerating elements on rotating axle

FOVAROSI CSATORNAZA 23.02.78-HU-FO0784

(28.09.81) C02b-01/28

EGYI ★ D15 D/43 ★ HU T020-885
Ion exchange columns for water softeners - regenerated in closed circuit with salt soln.

EGYESULT IZZOLAMPA VILLA 29.03.79-HU-EE2642

(28.09.81) C02b-01/42

VIZG- ★ D15 D/43 ★ HU T020-886
Processing liq. manure from farmyards - to produce gas, organic fertilisers and purified water

VIZGAZDALKODASI TUD 23.01.80-HU-000133

C04 (28.09.81) C02c-01

MEZE- ★ D15 D/43 ★ HU T020-887
Small-scale biological purifier for waste water - partic. for communities without sewerage systems

MEZEPSZER MEZOGAZDA 04.12.79-HU-ME2322

(28.09.81) C02c-01/06

PEST- ★ D15 D/43 ★ HU T020-903
Rotary drum composting appts. - for processing waste water sludges

PEST MEGYEI TERVEZO 03.11.79-HU-PE1094

(28.09.81) C05f-07 C05f-09/04

KOLT/ ★ D15 D/43 ★ HU T021-206
Accurate control of water and chemicals mixing - partic. for clarifying water

KOLTOG 07.05.76-HU-KO2788

(28.09.81) C02c-01

KOOL- ★ D15 D/43 ★ HU T021-207
High-efficiency appts. purifying industrial aq. effluents - contg. flocculating and flotation units

KOOLAJ-ESGAZIPARI 15.01.79-HU-KO2971

(28.09.81) C02c-01/18

BUDV- ★ D15 D/43 ★ HU T021-208
Lead oxide recovery from storage battery plant wastes and effluents - using mixer, hydrocyclone and dewatering centrifuge

BUDAPESTI VEGYIPARI 04.08.78-HU-BU0891

E32 L03 (28.09.81) C02c-01/24

NISI ★ D15 78323 D/43 ★ J5 6056-221
Ferrous sulphate soln. dispenser for waste waters - has inclined base perforated wall reservoir for solids at higher level than tank in which soln. is made

NISSHIN STEEL KK 13.10.79-JP-132193

J04 (18.05.81) B01f-01

13.10.79 as 132193 (26DH)

Device is claimed for dissolving a granular substance such as ferrous sulphate into water fed into a tank, adjacent to a reservoir for contg. the granular substance, to produce a soln. of ferrous sulphate available for introducing into factory waste water, etc. The object is to automatically produce the soln.

The novelty is that the reservoir is located at a higher level than the tank and has an inclined bottom sloping down towards the tank. A perforated vertical wall is interposed between the tank and reservoir to allow the granular substance to drop into the tank. A water spray pipe is located in the reservoir tank. (2Pp)

SHMC ★ D15 78336 D/43 ★ J5 6065-683
Processing waste water contg. low nitrogen content organic matter - by addn. of acid, alkali or salt followed by biological treatment

SHIMIZU CONSTRUCTION(NITE-) 31.10.79-JP-140700

(03.06.81) C02f-03/12

31.10.79 as 140700 (34DH)

In the biological treatment of organic waste waters contg. none or only a small amt. of nitrogen cpds., the improvement comprises adding a predetermined amt. of a substance capable of being biologically decomposable and altering pH of the treated liquor in accordance with the degradation, e.g. acid (propionic acid, acetic acid), alkali (NH₄OH), and salt (CN₃COONa) etc. or waste water contg. those substances to the organic waste water to be treated. This is followed by biological treatment, e.g. with activated sludge, and detecting pH of the treated liquor to observe degradation processing degree of organic pollutants contained in the liquor.

The degradation condition of the biological treating system is known accurately and the biological treating system is controlled under a predetermined state by adjusting the aeration or recycling sludge. In a modification, a biologically undecomposable acid or alkali, e.g. H₂SO₄, NaOH, etc. may be added to maintain pH value of the waste water under a certain constant value during the course of the biological treatment, after the addn. of the above substance, followed by measuring the amt. of the acid or alkali added to observe the degree of degradation. (4pp)

SUMB ★ D15 78607 D/43 ★ J5 6115-602
Polysulphone sepn. membrane - with hole-free barrier layers on membrane surface supported by layer which does not hinder liq. flow

SUMITOMO BAKELITE KK 18.02.80-JP-017801

A88 J01 (A26) (10.09.81) B01d-13

18.02.80 as 017801 (55HM)

Polysulphone sepn. membrane comprises (a) barrier layers on both surfaces of the membrane, where small holes or openings (observable by microscope) are absent, and (b) a supporting layer which supports the barrier layers and does not hinder liq. flow. The supporting layer consists of neighbouring tubular structure, which is almost vertical near both barrier layers. The sectional plans of the supporting layer in parallel with the barrier layers show it is homogeneous near the barrier layers but not in the middle of the supporting layer. The tube comprising the tubular structure should have at least 1 diaphragm(s) which separate the tube (and/or another tube with different axis) horizontally.

Used for sepn. membranes esp. for ultrafiltration. (3pp)

KOBM ★ D15 78608 D/43 ★ J5 6115-603
Pretreating raw water to be filtered - including addn. of agglomerant and filtering assistant, followed by filtration and reverse osmosis

KOBE STEEL KK 16.02.80-JP-018172

J01 (10.09.81) B01d-13

16.02.80 as 018172 (26AS)

Method is claimed for pretreating raw water before it is treated using reverse osmosis filtering modules such as flow-fibre or spiral types modules. Improvement is that an agglomerant is added to the raw water and stirred with it. A filtering assistant is then added to the water to perform a direct filtration to produce a filtrate. The filtrate is fed into the reverse osmosis filtering modules. Direct filtration is effected using a porous ceramics or sintered metal filtering medium or filter cloth. (5pp)

TANI- ★ D15 78611 D/43 ★ J5 6115-606
Appts. for sepg. liq. e.g. muddy water - includes filter unit in upper space of main pptn. chamber to filter off suspended solids

TANII KOGYO KK 19.02.80-JP-019953

J01 (10.09.81) B01d-21/02

19.02.80 as 019953 (26AS)

Device for sepg. a liq. such as muddy water drained from a civil engineering site, without discharging into a river, comprises a portable tank sectioned into a pre-pptn. chamber, main precipitator, and filtrate chambers arranged in this order.

Improvement is that a filter unit is provided in an upper space of the main pptn. chamber to filter off suspended solids contained in the water. The supernatant of the filtrate is discharged outside and reused for the engineering work. Scraper plates and screws are disposed in the chamber to forcibly drain the pptd. solids. Treatment is inexpensive and fully automatic. (7pp)

SUMH ★ D15 78612 D/43 ★ J5 6115-608
Continuously operating filter for aq. effluent - has screen of inner tube higher than that of outer tube

SUMITOMO HEAVY IND(SEKI-) 20.02.80-JP-019058

J01 (10.09.81) B01d-23/14 B01d-33

20.02.80 as 019058 (26AS)

Device for continuously filtering waste water contg. suspended solids, such as industrial waste waters, comprises an inner tube having a wire net screen at the bottom, an outer tube also having a wire net screen, and a tank, in which both tubes are coaxially arranged to form a pptn. chamber in the inner tube, a filtering bed formed between both tubes and a filtrate water chamber between the outer tube and housing. A rake is turnably disposed beneath the filtering bed and pptn. chamber to drain the suspended solids and satd. filtering medium.

Improvement is that the screen of the inner tube is placed higher than that of the outer tube to allow the filtering bed to lower continuously. (4pp)

SUNH ★ D15 78613 D/43 ★ J5 6115-609
Filter for treatment of sewage etc. - has rectangular moving bed filters with raw water receiving stations at side of each bed for increased filtering surface area

SUNDSTRAND CORP(SEKI-) 20.02.80-JP-019059

J01 (10.09.81) B01d-23/14 B01d-33

20.02.80 as 019059 (26RP)

A device for filtering continuously dirty water such as sewage and industrial waste waters, contg. suspended solids, comprises filtering units, each having a moving bed formed between two vertical plates. The object is to increase the effective filtering surface area, relative to a limited installation area.

The novelty is that each moving bed of filtering medium is rectangular shaped. The device has a raw water receive section at one side of each bed and a filtrate receive section at the other side. A raw liq. inlet wire net is attached at one side of each bed and a filtrate drain wire net is at the other side. The latter net is lower than the former. A rotary filtering medium drainer is disposed below the beds. (4pp)

EBAI ★ D15 78635 D/43 ★ J5 6115-66
Removal of impurities from condensate - by passing through column packed with cation and anion exchange resins

EBARA INFILCO KK 15.02.80-JP-017295

J01 (10.09.81) B01j-47/04 C02f-01/42

15.02.80 as 017295 (34BZ)

Removal of impurities from condensate for re-use as water to be supplied to a boiler etc. is by passing through desalination tower packed with ion exchange resin. The improvement comprise packing a cation and anion exchange resins mixt. in the tower and introducing the condensate to be treated into the tower from an intermediate distributor provided at an intermediate part of resin layer. The treated water is discharged from a collector provided at the bottom of the tower in ordinary case, or by carrying-out a switching-over of the introduction of the condensate from a distributor provided at the top of the tower in case of condensor leakage to obtain continuously the treated water.

The leakage of Na(+) or Cl(-) is very little even after NH₃ breakage due to the fact that Na-type strong acidic cation exchange resin and Cl-type strong basic anion exchange resin are not contained in a resin layer positioned lower than the intermediate distributor. Further the treated water has excellent quality without any decrease in its amt. even in case of condensor leakage. In ordinary case, the introduction of the condensate is contained even after NH₃ leakage in the treated water. (6pp)

KAWJ ★ D15 78636 D/43 ★ J5 6115-685
 Detoxifying cyanide liquor obtd. by absorbing hydrogen cyanide - in alkali, by oxidising using ozone followed by hydrolysing
KAWASAKI HEAVY IND KK 19.02.80-JP-019583
E36 (10.09.81) C02f-01/78
 19.02.80 as 019583 (34RH)

A cyanide liquor resulting from absorbing HCN gas used for fumigation of banana and other green fruits etc. in aq. alkali soln. is detoxified without using any valuable chemical agent or necessitating any complicated pH-adjusting means by contacting it with O₃ gas to oxidise NaCN or KCN to NaCNO or KCNO, and subsequently hydrolysing it at comparatively lower temps. (ordinary temp. to 60 deg.C) to give bicarbonate and ammonia.

In a modification, the O₃-treated NaCN-contg. aq. soln. is further contacted with O₃ gas prior to hydrolysing treatment to improve the hydrolyses rate and to shorten the decomposition time of NaCNO or KCNO. The stoichiometric amt. of O₃ necessitated for the oxidn. of NaCN to NaCNO is 1.78 pts. per 1 part of HCN, but the practical amt. of O₃ is found to be 1.45-1.60 pt. per part of HCN where gas-liq. contact efficiency is excellent and O₃-utilisation rate is almost 100%. This may be due to decomposition of oxygen by the action of energy resulting from decomposition of O₃. (5pp)

ASAG ★ D15 78637 D/43 ★ J5 6115-692
 Solidification of sludge or its incinerated residue - by adding cement and alkali resistant glass fibre for excellent mechanical strength etc.

ASAHI GLASS KK (DNII DNIN) 20.02.80-JP-019087
J04 Q73 (10.09.81) C02f-11 C04b-29 C04b-31/06 F23g-07
 20.02.80 as 019087 (34RP)

A sludge, e.g. from coagulation sedimentation of plating effluent and metal surface-treating waste liquor, etc. or an incinerated ash from incineration of the sludge or municipal dust etc. is converted to a solidified prod. having excellent strength with a decreased amt. of cement compared with that in conventional arts even in such a case that cement solidification-inhibiting substances, e.g. sulphate, chloride, alkali metal salt, humus and sugar, etc. are contained.

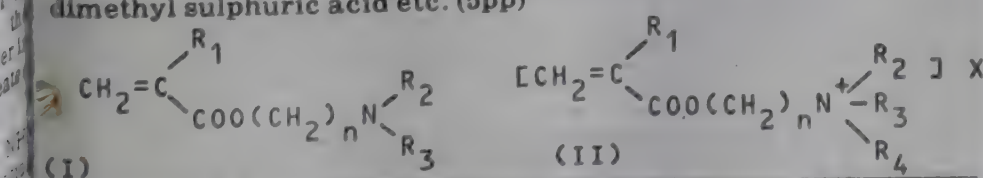
The process comprises adding cement and alkali-resisting glass fibre, e.g. chopped strand obtd. by spinning under fused state alkali-resisting glass into filaments having the cross-sectional dia. of 6-30 microns, bundling together a few scores to 100 of the filaments with bundling agent and cutting into length of 12-50 mm. The amt. of the alkali-resisting glass fibre to be added is pref. 1-20 wt.% based on the cement. In some cases, a portion of the cement may be replaced by sand to reduce the cement amt. to be used. (5pp)

TAKG ★ D15 78638 D/43 ★ J5 6115-694
 Water treating agent esp. for dewatering sludge - comprising mixt. of carbonaceous material and graft polymerised water-soluble vinyl monomer

TAKI KAGAKU KK 15.02.80-JP-018292
A97 J01 (A14) (10.09.81) B01d-21/* C02f-11/14
 15.02.80 as 018292 (34AS)

Water-treatment agent esp. suitable for use as sludge-dewatering agent, comprises (a) carbonaceous material e.g. coke, pitch, pitch coke etc., and (b) graft-polymerised water-soluble vinyl monomer. The water-soluble vinyl monomers is e.g. (meth)acrylic acid (ester), (meth)acrylamide or ester of aminocarboxylic acid etc. Graft-polymerisation degree improved by using acrylamide in combination with an aminocarboxylic acid ester of formula (I) or (II) opt. in ternary or quat. salt form.

R₁ is H or CH₃; R₂ is H or 1-4C alkyl; R₃ and R₄ are each 1-4C alkyl; n is integer of 1-4, and X is an anion, e.g. dimethylaminoethyl (metha)acrylate or diethylaminoethyl (metha)acrylate. Ternary salt is e.g. with hydrochloride, sulphate, acetate etc. and quat. salts is e.g. with methyl chloride, dimethyl sulphuric acid etc. (5pp)



HORI. D15 65336 B/36 = J8 1041-065
 Electrochemical determ. of cadmium ion concn. esp. in waste water - using sodium or lithium tetra:phenyl-boride and reducing agent to mask copper and silver ions

HORIBA SEISAKUSHO 31.12.77-JP-158070
E32 J04 M25 (S03) (25.09.81) *J54094-095 G01n-27/46 + G01n-31
 31.12.77 as 158070 (50AT)

Appts. for determining cadmium ion concn. comprises a determining vessel equipped with a Cd ion-selective electrode

and a reference electrode, an ion concn. analyser to which the output potential between the two electrodes is applied, and a device for supplying a masking liq. consisting of tetraphenylboron sodium or tetraphenylboron lithium, and reducing agent (e.g. L-ascorbic acid or hydrazine) to a sample fed into the determining vessel.

The Cd ion concn. can be precisely determined by a simple and economical operation while preventing the hindering effects of copper ion and silver ion by masking. Cu ion and Ag ion often coexist together with Cd ion in waste water from factory, mining, etc. (J54094095) (3pp)

MITO D15 55161 X/29 = J8 1041-283
 Preventing contamination of water treatment appts. - by irradiation of water with ultrasonic wave

MITSUBISHI HEAVY IND KK 03.12.74-JP-137765
J01 + P43 (28.09.81) *J51064-480 B01d-13 + B08b-03/12 C02f-01/36

03.12.74 as 137765 (NS)

Growth of microorganisms at the surface of a reverse osmosis membrane and in the water treating system, in which a reverse osmosis appts. is provided, is halted and its adhesion is prevented, and secondly, the useful life of a filter to remove suspended and floating matter as pretreatment for reverse osmosis treatment, is extended, by ultrasonic wave irradiation at opt. parts of the passage of treated water in the system.

Reverse osmosis appts. can thus be prevented from contamination without using toxic chemicals and all operation can be carried out electrically; control is easy. (J51064480) (5pp)

KUBI D15 32439 B/17 = J8 1041-284
 Absorption appts. for heavy metal and organic(s) removal from liq. - has liq. spray nozzle assembly, liq. collector, a second spray nozzle assembly and an outlet

KUBOTA KK 27.08.77-JP-102810
J01 (28.09.81) *J54035-877 B01d-15 + B01j-47/02 C02f-01/28
 27.08.77 as 102810 (17MR)

Packed tower used for removing heavy metal or organic impurities from a liq., comprises a liq. spray nozzle assembly in an upper portion of the tower and directed toward the top of the packed bed, a liq. collector in the bottom of the packed bed, a second spray nozzle assembly comprising perforated tubes having perforations smaller than the particle size of the packed material, the second nozzle assembly being immediately below the top of the packed bed, and an outlet pipe having an open end located at a level intermediate between the first nozzle assembly and the top of the packed bed.

A cleaning water is introduced through the second nozzle assembly and discharged through the outlet tube with the impurities-carrying particles. (J54035877) (3pp)

TKEN ★ D15 78932 D/43 ★ J8 1041-286
 Sludge precipitator - has reservoir sepd. into separate sedimentation tanks, each with sludge collection pit and water collecting channel around tank (J5 27.1.78)

TAKENAKA KOMUTEN KK 13.07.76-JP-083845
(28.09.81) B01d-21/02
 13.07.76 as 083845 (26RH)

An appts. is claimed for pptn. of a dirty sludge with much water. It comprises a sludge reservoir pond, partitioned into separate sedimentation tanks, each having a sludge collection pit and water collecting channel around the tank. (J53009045) (4pp)

AGEN D15 25132 X/14 = J8 1041-314
 Electrolytic oxidation of pulp waste water - to convert org matter e.g. lignin and sugar to carbon dioxide

AGENCY OF IND SCI TECH 09.08.74-JP-090777
(28.09.81) *J51019-363 + C02f-01/46
 09.08.74 as 090777 (KB)

Pulp waste water contg. lignin and sugar is electrolytically treated between an anode (pref. PbO₂) with high oxygen concn. and an insoluble cathode at room temp.-80 deg.C; voltage:2-20V and a concn. of org. matter about 0.01-2%.

Org. matter such as lignin and sugar is oxidised to carbon dioxide. COD and absorbance can be reduced by more than 95%. Electricity can be controlled subject to the amount to be treated (J51019363) (3pp)

KANA/ D15 66288 U/44 = J8 1041-315
 Fluorine removal from water - by adsorption of calcium fluoride colloid onto diatomaceous earth floc

KANAI M 12.11.71-JP-090447
(28.09.81) *J48055-193 + C02f-01/46
 12.11.71 as 090447 (TM)

Colloids of CaF₂ formed by electrolysis of NaF or HF soln. in the presence of Ca cpds., are eliminated by adsorption onto larger flocs of diatomaceous earth or org. matter.

An addn. of 10 g of Ca cpd. and 20 g of diatomaceous earth to 1 cubic metre of H₂O contg. 1 ppm NaF and successive electrolysis with d.c. 20 A/cubic metre causes the formed CaF₂ colloids to be adsorbed onto diatomaceous earth flocs, and the treated H₂O contains 0.4 ppm F. (J48055193) (3pp)

CHCC **D15** **02435 X/02 = J8 1041-316**
Chromium-contg. waste acid treatment - calcium
oxide/hydroxide added obtnchromium hydroxide, calcium
sulphate (hydrate)

CHISSO CORP 21.05.73-JP-056573
J01 L02 (28.09.81) *J50006-574 + C01f-11/46 C02f-01/58
21.05.73 as 056573 (KB)

A Cr-contg. waste H₂SO₄ soln. is treated with Ca(OH)₂ or CaO to obtain a powdery material essentially consisting of Cr hydroxide, CaSO₄·0.5H₂O, and CaSO₄. Then, the powdery material is solidified by mixing with water or a slurry obtd. by neutralising a Cr-contg. HF soln. with milk of lime.

In an example 2100 ml of a Cr 6+ -contg. H₂SO₄ soln. (d 1.8 g/c) was reduced by mixing with 68 ml MeOH and agitating for 30 min. Then, 500 ml of the resulting H₂SO₄ soln. was mixed with 910 Ca(OH)₂ to obtain 1485 g of a powdery material. Meanwhile, 790 ml of a Cr 6+ -contg. HF soln. was reduced with 30 ml MeOH, and the resulting soln. (175 ml) was mixed with 315 ml lime slurry contg. 235.5 g Ca(OH)₂. Then the resulting slurry with 5.3 ml of a waterproofing agent was mixed with 716 g of the above powdery material, moulded, and hardened to obtain a waterproof block. When the block was dipped in 1 l water for 1 month, no Cr was detected in the water. (J50006574) (2pp)

UNIC **D15** **40632 T/25 = J8 1041-319**
Effluent water treatment - with activated sludge in an aeration zone followed by a deactivating zone

UNION CARBIDE CORP 14.12.70-US-097706
(28.09.81) *BE-776-617 C02f-03/26 C02f-11/02
08.12.71 as 098737 (RH)

The effluent is treated with activated sludge and feed gas (at least 90 vol.% O₂) in an aerated continuously mixed zone to maintain dissolved O₂ more than 0.5 ppm followed by clarification and discharge of the liquid, where most of the activated sludge (at least 85 wt.% dry wt.) is recycled to the first zone and the remainder is drawn off with the used gas together with a second gas stream of O₂ content at least 0.7 times that of the initial gas into a digestion zone for mixing over at least 96 h. Used gas of O₂ content at least 21 vol.% is exhausted and the deactivated sludge drained off. The digestion zone pref. contains at least two sections in parallel used alternately. The treatment ensures a high oxygen usage of the sludge with low energy input and plant costs. (J47012488) (14pp)

KANS-★ **D15** **78955 D/43 ★J8 1041-591**
Concrete mix - contains ash obtd. from incineration of sludge of power plant waste water settling tank (J5 13.9.79)

KANSAIDENRYOKU KK 06.03.78-JP-025800
L02 (29.09.81) C04b-13/22 C04b-29 C04b-31/10
06.03.78 as 025800 (83BZ)

Concrete mix comprises 5-25 wt.% ash obtd. by incineration of sludge formed in settling tank of waste water in power plant. The concrete has improved compressive strength. (J54118429) (3pp)

SUMO **D15** **73424 V/42 = J8 1041-645**
Heavy metals from waste water removing agents - based on urea, thiourea, melamine, guanidine etc. formaldehyde resins

SUMITOMO CHEMICAL KK 26.07.72-JP-075421
A91 (A21) (29.09.81) *J49032-888 + B01j-45 C08g-12/40
26.07.72 as 075421 (TM)

Heavy metal removing agents (useful for removing heavy metals from water contg. a 1-10 mg/l of heavy metals) are prepd. from a resin, prepd. by reaction of HCHO with a reaction product (or its salt) of CS₂ and an amine, such as urea, thiourea, melamine, guanidine, aliph. polyamine, arom. amine, or their deriv.

In an example, 260 parts of an aq. 37% HCHO soln. (pH 7.5) reacted 5 hr. at 43-5 deg. C with 120 parts urea and 302 parts CS₂, and the reaction product was stirred with 130 parts of an aq. 20% HCl soln. to give 380 parts of a white urea resin powder, which (100 parts) was treated 10 hr. with 500 parts of an aq. 30% NH₃ soln., filtered, washed and dried to give 104 parts of a white powder.

A waste water (100 parts) contg. 10 mg/l Hg was mixed with 0.5 part of the white powder, and stirred to give a waste water contg. 0.009 mg/l Hg. (J49032888) (6pp)

SUMO **D15** **08095 W/05 = J8 1041-646**
Waste-waters heavy metals removing adsorbent - nitrogenous compd-formaldehyde pre- cond. prod. reacted with carbon disulphide and resinified

SUMITOMO CHEMICAL KK 18.09.72-JP-093873
A91 (29.09.81) *J49051-187 + B01j-45 C08g-12/40
18.09.72 as 093873 (AT)

An initial condensn. prod. of a N cpd. (e.g., urea, thiourea, melamine, guanidine, aliph. polyamines, arom. mono- or polyamines, and their derivs.) and HCHO is reacted with CS₂ and then resinified, or reacted with CS₂ and resinified simultaneously, to yield an agent for removing heavy metals. The prod. is esp. useful for treating waste waters contg. heavy metals.

In an example, aq. 37% HCHO soln. (81 parts) was adjusted to pH 10 with aq. 10% NaOH soln., mixed with melamine (61 parts), heated at 38-45 deg. for 0.5 hr. to yield a liq. initial condns. prod., reacted with CS₂ (40 parts) at 43-44 deg. for 3 hr., and distd. at 10-15 torr and 33-62 deg. to remove unreacted CS₂ and water, to yield a white resin (132 parts) contg. 7.6% CS₂. The white resin (50 parts) was mixed with aq. 5% KOH (100 parts), heated at 40 deg. for 5 min. filtered, washed, and dried to yield a yellow resin.

An aq. soln. (100 parts) contg. 10 mg Hg/l was contacted with the yellow resin (0.5 part) for 1 hr. to yield a treated water contg. 0.075 mg Hg/l, as compared to 1.25 mg Hg/l by using a com. chelate resin. (J49051187) (6pp)

NIPS **D15** **01489 V/01 = J8 1041-673**
Heavy metal adsorbent - from aldehyde, dithiocarbamate, and aromatic

NIPPON SODA KK 04.07.72-JP-066931
A91 H06 M25 (29.09.81) *BE-801-881 B01j-45 C02f-01/28 C09k-03
04.07.72 as 066931 (TM)

Adsorbent for heavy metals or heavy metal cpds. in liqs. and gases, such as industrial effluents, river water and automobile exhaust gases, consists of a resin prepd. by reacting (I) an aldehyde, and/or (II) a dithiocarbamate, and (III) an aromatic cpd. having an OH, SH, NH₂, COOH, or COOMe gp., (where Me is Na, K, NH₄ or 1/2 Ca).

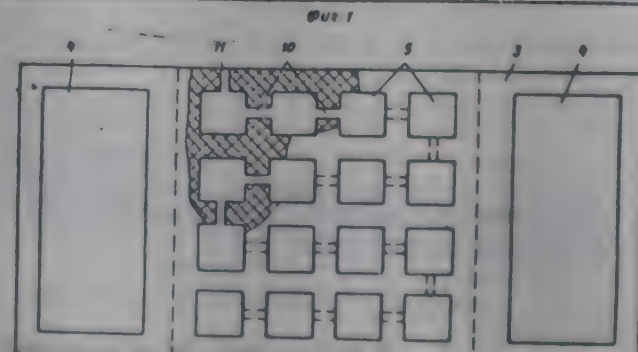
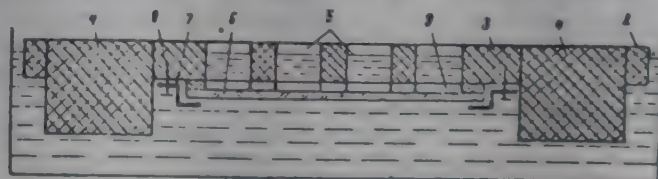
Efficient removal of heavy metals, thus preventing environmental pollution. Can be used in the form of a granular bed, added to materials, such as concrete, which are used for containers for heavy metal solns. or for the prodn. of pipes transporting the material contg. the heavy metal. (J49026196) (17pp)

URAL=★ **D15** **79314 D/43 ★SU-800-840**
Scale formation research appts. - employs floated slab with cells connected by channels in gasket, and bottom plate made from hydrophilic material

URALS HEAT TECHN 21.03.79-SU-743234
J04 S03 (02.02.81) G01n-25/08
21.03.79 as 743234 (135MI)

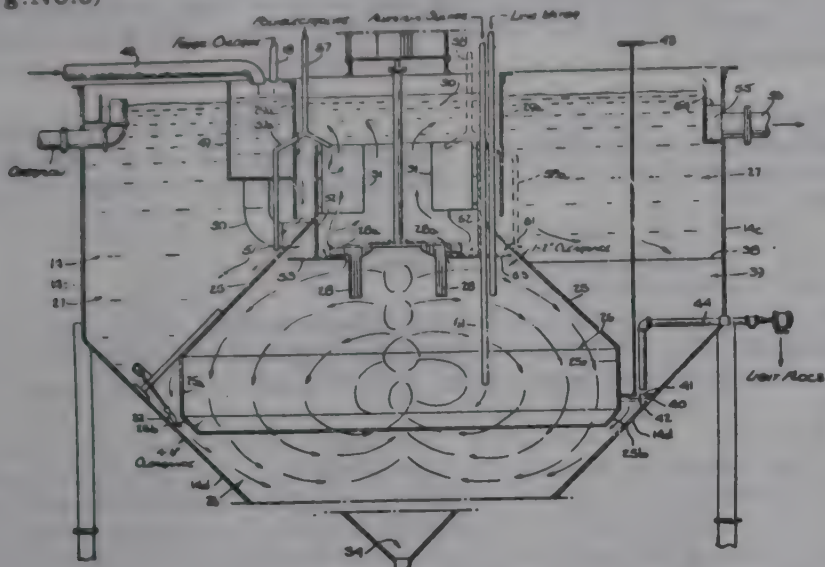
Improved reliability of the apparatus for studying the process of scale formation for determining the permissible degree of evaporation of water in the circulation systems of cooling in power stations and similar installations, which can be used also for the study of crystallisation of supersaturated solutions, is ensured in this design.

In the container (1) with water to be studied is placed slab (3) with floats (4), containing a number of through holes (5) which form cells when the bottom is closed by plate (6) fixed to the slab (3) by frame (7) and screws (8). Between slab (3) and plate (6) is placed gasket (9) with channels connecting consecutively all the cells, and the first cell with the volume of the container (1). The



An impeller (28) causes toroidal flow in the primary zone and upward flow into the secondary zone, outward flow from there to the clarified water zone, downwards towards the annular passage and back to the primary zone. Reactants can be added to the tank contents. A perforated plate defines a lower sludge zone. A separate concentration zone (39) for trapping lighter flocs is formed between two vertically spaced, radial partitions (38,40). Clarified water is removed from the top of the clarified water zone.

Continuous high vol. sludge sepn. is possible. (16pp Dwg.No.3)



DUPO ★ D15 79543 D/43 ★ US 4293-420
Storage of reverse osmosis membranes - in aq. solns. contg. alkaline earth and/or alkali metal ions

DU PONT DE NEMOURS CO 18.04.80-US-141661
A88 J01 (A23) (06.10.81) B01d-13

18.04.80 as 141661 (478AS)

The known process for storing polyamide reverse osmosis membranes (I) by immersing them in aq. media is improved by adding 8×10 power (-4) to 8×10 power -2 mol/l of alkaline earth ion(s) and/or 8×10 power (-3) to 4×10 power -1 mol./l of alkali metal ion(s).

Pref. metal ions added are those of Li, Na, K, Mg and Ca, esp. $MgCl_2$ or $Mg(NO_3)_2$. Pref. the concn. of alkaline earth ion(s) is 8×10 power (-3) to 8×10 power -2 mol./l; pref. concn. of alkali metal ion(s) is 4×10 power (-2) to 8×10 power -2 mol./l. Pref. (I) are the aromatic, N-contg. polymeric membranes described in US3567632. Storage medium may contain 5 ppm-1 wt.% HCHO as bacteriostat. Addn. of the alkali(ne earth) metal ions to the aq. storage medium prevents the known degradation of (I) that occurs esp. when HCHO is present as a bacteriostat. (3pp)

GREE/ ★ D15 79544 D/43 ★ US 4293-421
Upflow anaerobic filter surrounding septic tank - with overflow weirs permitting filter by/pass in case of blockage

GREEN A W 30.04.80-US-145243
(06.10.81) C02f-03/28

30.04.80 as 145243 (295DH)

Septic tank has an inlet for raw sewage and an outlet for effluent. An anaerobic filter surrounds the tank and is composed of a bed of surface contact material including void spaces for filamentous zoogloea growth. The inner boundary of the filter is defined by the septic tank, and its outer boundary by a device for retaining the surrounding earth. This prevents fine aggregates from entering the filter.

The effluent outlet is connected to a perforated distribution line which delivers the effluent to the bottom of the filter. A perforated discharge riser is positioned opposite the distribution line and collects effluent which has passed through the filter. Overflow weirs permit bypass of the filter in the case of blockage. The weirs are connected to a gaseous vent.

Used for secondary treatment of waste from a septic tank. Biological heat is retained. The upflow filter is installed in the same hole as the septic tank and this reduces costs. The filter may be added to an existing, failed septic tank drainfield. (8pp)

INTE- D15 47500 B/26 = US 4293-426
Polymer coated calcium peroxide particles - used for oxygenation of water, e.g. reservoirs, for long periods

INTEROX 18.11.77-LU-078545

A97 E33 + P42 P73 (06.10.81) *EP--2-543 C02f-01/72 + B05d-07 B32b-19/04

17.11.78 as 961699 (936PW)

Solid particles comprises Ca peroxide and a coating agent (I). (I) comprises a water-insoluble solid cpd. which is an organic polymer (II) or an inorganic cpd. having solubility in water of less than 1 wt.% and m.pt. at least 50 deg.C.

Pref. (II) contains monomer units derived from opt. substd. mono- and poly-unsatd. olefins. Pref. substds. are Cl, F, alkyl, aryl and cycloalkyl. (II) is pref. a vinyl copolymer contg. units derived from vinylidene chloride, styrene or vinyl chloride. Pref. inorganic cpds. are phosphates, silicates, sulphates, aluminates, aluminosilicates and carbonates.

Particles can be used in the treatment of water and can ensure sufficient long term oxygenation. (7pp)

ATAR- ★ D15 79584 D/43 ★ US 4293-506
Liq. circulation device submerged in liq. - includes large bubble generator feeding open ended vertical stack pipe

ATARA CORP 05.07.79-US-054826 (15.01.79-US-003707)
(06.10.81) B01f-03/04

05.07.79 as 054826 C.I.p 4187263 (295HM)

Device for creating circulation in a body of liq. includes a vertical stack pipe wholly submerged in the liq. and having an upper discharge and a lower inlet. A large-bubble generator is positioned adjacent the stackpipe and consists of a gas accumulator chamber with a bottom opening.

A vertical standpipe is also positioned adjacent the stack pipe and is connected for fluid flow to the top of the accumulator chamber by an inverted siphon. Gas under pressure is delivered to the accumulator chamber. A transverse gas flow conduit interconnects the upper end of the standpipe and the stack pipe. There is a secondary liquid inlet into the transverse conduit.

For the agitation of large standing bodies of liquid e.g. in anaerobic sewage systems. (10pp)

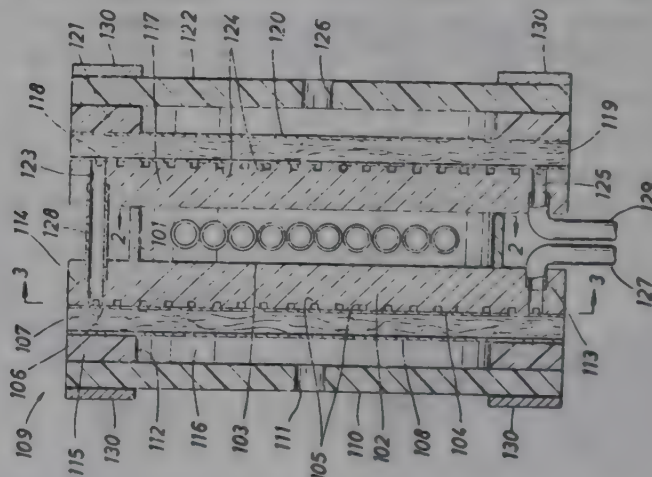
USAS ★ D15 79591 D/43 ★ US 4293-522
Oxidn. cell for oxidising organic carbon in aq. soln. - uses UV radiation to generate oxygen in situ

NATAERO & SPACE ADMIN 21.05.79-US-041145
J04 S03 (06.10.81) G01n-31/12

21.05.79 as 041145 (67AT)

Oxidn. cell for oxidising organic C contained in aqs. soln. comprises a chamber contg. the aqs. soln. and a UV radiation source in radioactive communication with the aqs. soln. An electrolytic cell adjacent the chamber electrolyses water and forms a barrier which maintains the aqs. soln. within the chamber. The cell has an anode adjacent the chamber, a solid water impermeable electrolyte in contact with the anode and a cathode in electrical contact with the electrolyte. H_2 is removed from a H_2 cavity adjacent the cathode.

Used for determining organic C in aqs. soln. O_2 is generated in situ, thus dispensing with air or other O_2 sources. The aqs. soln. can be supplied continuously to the chamber and returned to its source after the organic C determination. (9pp Dwg. No.1)



THME ★ D15 79594 D/43 ★ US 4293-527
Extraction of uranium from sea water - using adsorber sheets subsequently wound on hollow bobbins for elution

THERMO ELECTRON CORP 14.05.80-US-149866
E31 J01 M25 (06.10.81) C02f-01/28

14.05.80 as 149866 (295DH)

Uranium is extracted from sea water using adsorber sheets which are moved through a current of the water to absorb the uranium. The sheets are wound on perforated hollow bobbins to form rolls from which the uranium is eluted by passing eluant from inside the bobbins through the rolls.

Pref. the sheets are arranged horizontally in the current and are moved vertically. The process is pref. carried out continuously. The system extracts uranium from sea water and is pref. housed on a platform located just off shore. The loaded eluant is stored in a tank prior to transportation to an onshore plant for uranium recovery. (11pp)

TEN- ★ D15 79724 D/43 ★ WP 8102-886
 Disinfection of waste water with sulphur dioxide - pref. with addition of acid to reduce pH
 INT ENVIRONMENT INC 27.08.80-US-181780 (07.04.80-US-138214)
 (15.10.81) C02f-01/50
 07.04.81 as U00445 (295DH) (E) US2134679 FR1156172 US4123355
 US4029574 US1229305 US3522173 US2728726 SU-673615 N(AU BR CH DE GB JP SE)

Waste water is continuously disinfected by combining with sufficient SO₂ that it has a free SO₂ content no less than 5 mg/l. The SO₂-treated waste water is held in a treatment zone for 10-60 mins.

Pref. the waste water is combined with acid to reduce its pH content. The acid may be sulphuric or hydrochloric. Pref. the mixt. in the treatment zone is not agitated.

Used for the treatment of domestic or industrial sewage, prior to discharge into a river. The process obviates the use of chlorine which could produce cpds. toxic to aquatic organisms. (43pp)

GKSS- D15 62553 D/35 = WP 8102-887
 Organic cpd.-contaminated waste water purifcn. - by ozonising using chemically stable, inert absorbent catalyst pref. silica gel
 GKSS-FORSCH GEESTHA (MULL) 11.04.80-DE-013905
 (15.10.81) *DE3013-905 B01j-21/08 C02f-01/78 + B01j-37/02
 10.02.81 as D00033 (200JB) (G) DE2647341 DE2440181 US2722504 DE2511344 FR1073404 N(JP US)

Catalyst for ozonising contaminant-contg. waste water has (a) chemical stability to ozone, (b) long-term stability, and (c) can be shaped for use in packed columns. The catalyst is an adsorbent inert towards O₃, esp. SiO₂ gel or an SiO₂ gel-coated filler. Pref. packed column-fillers are pyrolysis silicate or silicone elastomer calcined at 600 deg. C under N₂.

Catalytic ozonising process use in organic cpd.-contaminated waste water processing to drinking water is claimed. The catalyst retains its catalytic activity in use. Even low residual organic cpd. concns. can be eliminated completely. (23pp)

OXFA- ★ D15 79725 D/43 ★ WP 8102-888
 Prepn. of solid prods. from humus sludges - for use as animal and fish feeds or fertilisers

OXFAM (GRAN/) 17.11.80-GB-036783 (03.04.80-GB-011296)
 C03 (C04 D13) (15.10.81) A23k-01 C02f-11 C05f-07
 03.04.81 as G00062 (1248BZ) (E) FR2094966 DE1792247 DE2648788 GB1525451 DE1459497 N(AU DK) E(AT CH DE FR GB LU NL SE)
 Prepn. of solid prod. (I) from a thickened activated or humus sludge contg. at least 2% solids comprises acidifying to pH 1-4 to cause flocculation, the sludge having previously been treated with base to over pH 8. The acidified mixt. is de-watered and the solid is recovered.

The sludge is pref. adjusted to pH 11-2 with base, then the mixt. is set aside for 1-5 hrs., these procedures being effected at room temp. Then the mixt. is acidified, pref. at 50-100 deg. C.

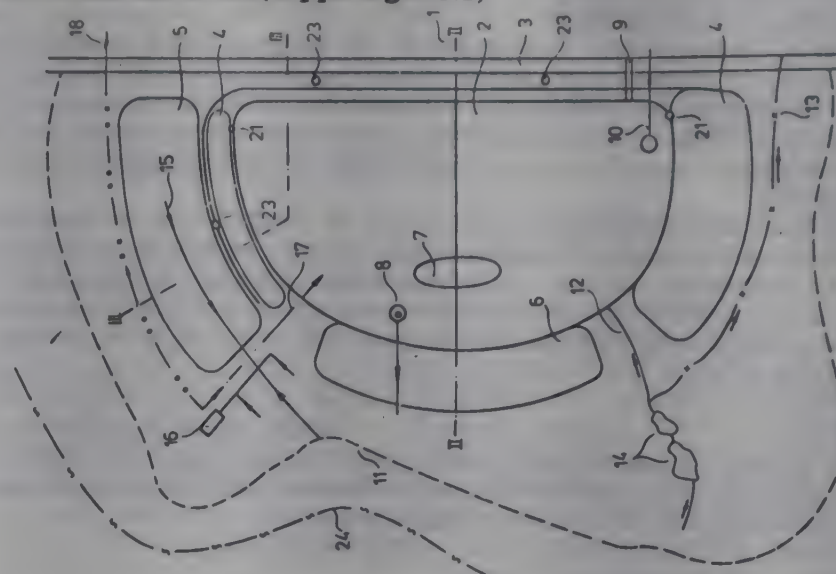
The (I) is suitable as an animal or fish feed or as a fertiliser; it has a high protein content and low heavy metal content (EDTA may be added if necessary) and the ash content can be as low as 10%. The procedure is suitable for continuous operation. (14pp)

KOMA- ★ D15 79738 D/43 ★ WP 8102-905
 Pond contg. filtered water alongside polluted stream - receives water from stream through filtering bank of natural or artificial material

KOMAROM MEGYEI TANA (BALO/) 02.04.80-HU-000780
 Q42 (15.10.81) E02d-19/04 E03b-03/04
 02.04.81 as HU0013 (236DH) (G) 3.Jnl.Ref N(US) E(DE FR GB)
 A pond contg. filtered water having a relatively large exposed surface (2) is located alongside a polluted stream, canal or other body of water (1) having a high flow rate or contg. a large mass of water. Between the polluted body of water (1) and the pond (2) there is a filtering dam (3).

Pref., the polluted water is filtered through the dam by mechanical, chemical, biological or bacteriological processes. The dam (3) may be the local soil having good filtering properties or may be artificially laid using natural or synthetic materials.

The pond (2) is used as a draw-off source for clean water and may have, for this purpose, additional filter wells (6) along the banks, bottom wells (7) a collection point (8) or a discharge weir (9). Water from the pond may be used as drinking water, agricultural water or for industrial purposes, or it may be used as a recreational area. (22ppDwg.No.2)



KINW- ★ D15 D/43 ★ ZA 8005-526
 Appts. for prodn. of solns. of predetermined concn. - comprising chamber contg. solute into which liq. flows from first chamber
 KINWAT PTY LTD 08.09.80-ZA-005526 (08.11.79-ZA-006017)
 C04 J04 T06 (S02) (03.08.81) C05f G01f G05d

08.09.80 as 005526 (HM)

Appts for the continuous prep. of a soln. having a predetermined concn. includes a first chamber having an inlet for liquid at a low level, an outlet to a low level of a second chamber and an outlet at a low level from the second chamber. A grid is located in the second chamber in which is suspended a solute whereby the solute is contacted by liq. flowing into the second chamber until the density of the liq. reaches a predetermined level and the soln. in the second chamber flows back in the first chamber in a quantity sufficient for the soln. to fall below the level of the solute. The solute may be in the form of granules, pellets, tablets, powder etc. The appts. is of particular importance for supplying a concentrate of Na₂CO₃ and aluminium sulphate to water for treatment. The soln. may be led directly to a dosing device for water. (9pp)

AGAN- ★ D15 D/43 ★ ZA 8005-800
 Rapid decomposition of herbicide residues in aq. waste - by aerating and simultaneously exposing to visible light in presence of sensitiser and maintaining at predetermined pH (BR 7.4.81)
 AGAN CHEM MFS LTD 19.09.79-IL-058495
 C03 (03.08.81) A01n C02f-01/30

19.09.80 as 005800 (AS)

Method for rapidly decomposing uracil, urea, triazine and acetanilide herbicide residues in aq. industrial waste solutions and suspensions, to non-phytotoxic, is described.

Process comprises (a) aerating the waste solution or suspension, (b) simultaneously exposing the solution or suspension to irradiation by visible light in the presence of a suitable dye-sensitizer, and (c) maintaining the system during the period of treatment at a predetermined pH. (14pp)

See Also

D12 US 4293098	D13 US 4293307	D16 EP--37612
D16 HUT 020902	D17 US 4293412	D18 US 4293647
D22 US 4293559		

D16: FERMENTATION INDUSTRY

NADI ★ D16 D/43 ★ BR 8101-780
 Continuous ethanol fermentation
 NATIONAL DISTILLERS CORP 03.04.80-US-137074
 (06.10.81) C12p-07/14

GADO/ ★ D16 D/43 ★ BR 8103-904
 Thermo-centrifugal rectifier-distiller
 GADOTTI W 24.06.81-BR-003964
 (06.10.81) C12f-01/08

DEAK * D16 77873 D/43 ★DD-149-810
Protein-contg. biomass prepn. by HB 201-ZIMET B 612
cultivation - with ammonium (bi)carbonate soln. addn. to
medium contg. carbon dioxide and hydrogen

AKAD WISSENSCHAFT DDR 10.03.80-DD-219548

(29.07.81) C12n-01/26

10.03.80 as 219548 (200RH)

Bacterial strain HB 201-ZIMET B 612, (A), is cultivated
continuously under esp. non-sterile conditions on a CO₂ and H₂
mixt. in the presence of an aq. mineral salt soln. and of a free O₂-
contg. gas. The C- and N-source is charged continuously to the
fermentation vessel as an aq. soln. of (NH₄)₂CO₃ and/or
NH₄HCO₃.

The biomass obtd. can contain up to 70% crude protein and
contains all essential aminoacids. Ammonium (bi)carbonate
addn. increases partial pressures and dissolved H₂ and O₂
concns. Stable culture conditions are achieved. Culture medium
pH remains within desired range and no further pH-adjustment is
required. (10pp)

EMBL- * D16 77974 D/43 ★DE 3014-189
Mfg. highly immunogenic detergent, and lipid-free sub-unit
vaccines - against influenza parainfluenza and Rhabdo viruses,
by centrifugation of virus in a sugar gradient

EMBL EUROPAISCHES L 14.04.80-DE-014189

B04 (15.10.81) C12n-07/04

14.04.80 as 014189 (280NS)

Prodn. of immunogenically active lipid- and detergent-free
soluble aggregates of amphiphilic membrane proteins of
parainfluenza, influenza and rhabdo viruses comprises
extracting of the membrane with surface-active agents. (A) The
virus is mixed with a non-ionogenic or bile acid type detergent;
(B) the mixture in buffered aq. salt soln. or overlaid on a
detergent-free sugar gradient which is itself overlaid with a
detergent-contg. sugar soln., and centrifuged at at least 150,000 g;
(C) the protein-contg. fraction is isolated and dialysed against
buffer soln; and (D) the protein micelle soln. obtd. is lyophilised.

Prodn. of highly immunogenic subunit vaccines against
influenza, parainfluenza and rhabdo viruses which are free from
undesired side-effects attributable to other virus components,
taken up in suitable solvents (e.g. physiological saline) for
parenteral admin. (15pp)

NATR D16 29725 B/15 = DS 2960-459
Increasing the immunogenicity of an antigen - by combination of
an antigenic material with the antigen

NATIONAL RES DEV CORP 28.09.77-GB-040339

B04 C03 (15.10.81) *WP7900-160 A61k-39

27.09.78 as 960459 Based on EPG006916 (945TM)

Antigenic material in combination with an MHC (Major
Histocompatible Complex) antigen is new. Combinations of an
MHC antigen with protein(s) occurring in nature are excluded.

Prof. the MHC antigen is an HLA (Human Lymphocyte
Antigen) or non-human MHC antigen analogous to HLA. The
MHC antigen may be present as a complex with a protein with
which it is normally associated in nature, e.g. as an MHC-B2M
complex.

The effect of the antigenic material, administered for
immunisation or therapy, is made more potent. Specific
antigenic materials include bovine and porcine LA,
Staphylococcus, enterotoxin, diphtheria, and tetanus toxoids,
antigens derived from influenza and rabies viruses, etc. (8pp)

MITO D16 33713 B/18 = EPG001-622
Steroidal alcohol(s) prodn. by fermentation with Mycobacterium
species - to give 20 alpha-hydroxymethyl-pregna-1,4-diene-3 one
or pregn-4-en-3-one

MITSUBISHI HEAVY IND KK (MITU) 14.10.77-JP-123185
(14.10.77-JP-123184)

B01 (14.10.81) *EP---1-622 C07j-09 C12p-33 + C12r-01/33

13.10.78 as 101142 (945KB) (E) FR2313395 US3684657 US3759791
2.Jnl.Ref E(CH DE FR GB NL SE)

Prepn. of 20 alpha-hydroxymethylpregna -1,4-dien-3-one and/or
20 alpha-hydroxymethylpreg -4-en-3-one comprises cultivating
Mycobacterium parafortuitum complex MCI 0617 (DSM 1381) in
the presence of a sterol substrate. Pref. the sterol substrate is a
sterol, its C-3 ester deriv. or its C-3 ether deriv.

The prods. are intermediates to cortico steroids, progestogens
anabolic hormones etc. They are produced at high concns. as the
main prods. in a molar % yield exceeding 50% for the consumed
sterol substrate. (13pp)

EIKM/ D16 29048 D/16 = EP -37-416
Automatic fluid contamination monitor - by detection of gas
evolved when the fluid is added to a growth medium

EIKMAN E A 0110.79-US-080327

S06 (14.10.81) *WP8100-858 C12q-01/16

US3952729 US4071315 US4021308 US3817239 US3129144 US3997404
US4057470 US3844894 US3956070 E(AT CH DE FR GB LI NL SE)

Fluid contamination detector comprises a container arranged to
contain a liquid labeled growth medium, a radioactive gas
detector to detect labeled gases evolved from the growth medium
in the container, and a sampling system which takes samples of
the fluid and periodically introduces the samples into the growth
medium in the container.

Esp. used for detecting contamination of urine in catheterised
patients, who are susceptible to infection of the urinary tract.
(25pp)

ARAK/ * D16 77997 D/43 ★EP -37-441
Compsn. contg. attenuated strain of vaccinia virus - useful as
cellular immunopotentiator and immune antitumour agent

ARAKAWA S 10.03.80-EP-300731

B04 (14.10.81) A61k-35/76 A61k-45/05 C12n-07/08

10.03.80 as 300731 (1248JB) (E) DE2145477 FR2353641 GB1520200
US4108983 GB1517540 US4017359 BE-636102 E(CH FR GB)

Compsn. contains an attenuated strain of vaccinia virus without
capacity to form pocks in rabbits but that shows reduced humoral
and enhanced cellular immune activity in mice, together with a
carrier. The strain is obtd. by serial passages of the vaccinia
virus in chick embryo cell monolayer culture, opt. after passage
in mouse kidney cell monolayer culture. Also vaccinia virus AS
strain ATCC VR-2010 is new.

The comps. is useful as cellular immunopotentiator and
immune antitumour agent for use in animals and humans. Dose
is 0.001-0.1 ml virus prepn. having a virus titre of 2 times 10 power
8 PFU/ml daily. (34pp)

SMIK * D16 78020 D/43 ★EP -37-522
Crosslinked Escherichia coli thermostable enterotoxin derivs. -
used to give immunity to diarrhoea, are prepd. by reaction of
toxins with protein bifunctional agent e.g. glutaraldehyde

SMITH KLINE-RIT 04.04.80-US-137326

B04 C03 (14.10.81) A61k-39/10 C07g-07

26.03.81 as 102264 (395AS) (F) No-Citns. E(AT BE CH DE FR GB
IT LI LU NL SE)

Process for the prepn. of Escherichia coli thermostable (ST)
enterotoxin derivs. by reaction of E.coli ST enterotoxins with an
atoxic bifunctional cross-linking agent for proteins followed by
isolation of the obtained derivs. The crosslinking agent is pref. a
dialdehyde, diketone, carbodiimide, isocyanate, epihalohydrin or
difluoride.

Immunisation of humans and animals against diarrhoea due to
E.coli enterotoxin infections. The derivs. are formulated to give
compositions suitable for intramuscular, sub-cutaneous or oral
administration with stabilisers to give solutions or suspensions
containing suitable adjuvants, e.g. Freud complete adjuvant,
aluminium hydroxide etc. A typical unit dose contains 0.1 mg/kg.
of crosslinked ST-enterotoxin derivs. Activity tests are
described. (20pp)

KSVC- * D16 78037 D/43 ★EP -37-583
Fluorimetric determ. of lipase activity in serum etc. - for
medical diagnosis esp. of pancreatitis

KSC-CHEMICALS OY 27.02.81-FI-010616 (09.04.80-FI-001117)

B04 (14.10.81) C12q-01

08.04.81 as 102650 (+18.4.80-FI-801258) (1248HM) (E) US3986930
FRM007600 US3741876 4.Jnl.Ref E(AT BE CH DE FR GB IT LI
LU NL SE)

Fluorometric measurement of the activity of fat-degrading
enzymes in samples comprises treatment with a substrate contg.
an acyl- or acyl-alkyl-glycerol or -phosphorylglycerol that reacts
with the enzyme to be assayed. At least one of the acyl or alkyl
gps., contains a fluorescent gp. and the other gps. opt. contain a
fluorescence quenching gp. The substrate is excited at the
specific excitation wavelength of the fluorescent gp. and the
change in intensity of the substrate per unit time is measured at a
specific emission wavelength of the fluorescent gp., the rate of
change being directly proportional to the enzyme activity of the
sample. The glycerol derivs. for use as described above are new.

The procedure does not require cumbersome sepn. steps for
determn. of lipase and phospholipase activity in serum samples
for medical diagnostic purposes, e.g. in the diagnosis of
pancreatitis. (20pp)

LAND- * D16 78053 D/43 ★EP -37-812
Anaerobic decomposition of solid animal and vegetable waste -
with fatty acids rinsed out with water and converted to bio-gas in
separate reactor

INST LANDBOUWPRODUK 02.12.80-NL-006567 (03.04.80-NL-
001997)

C04 (D15) (14.10.81) C05f-13

02.04.81 as 200374 (1251RH) (E) FR2324581 WP7900710 NL7703533
US4022665 E(AT BE CH DE FR GB IT LI LU NL SE)

material comprises first degrading the material to water-soluble rods, and lower fatty acids in a prim. reactor. These acids and their water-soluble organic and inorganic materials are removed by rinsing with an aq. liq. and the resulting soln. passed to an auxiliary reactor where conversion to CO₂ and methane takes place. The residue left in the prim. reactor is finally recovered as a stabilised compost.

Each auxiliary reactor is associated with several primary reactors, which are loaded intermittently and effluent from the auxiliary reactor is used as rinsing liquid. Rinsing is stopped as soon as methane generation starts spontaneously in the primary reactor. By removing acids etc. a much more efficient anaerobic conversion is achieved because the pH never falls so low as to inhibit the microbial flora. No contamination of the methane-generating reactor with undegraded material from the first stage occurs. (16pp)

SUMO ★ D16 78075 D/43 ★ EP --37-667
Immobilised lactase from aspergillus oryzae - on macroporous
phenol-formaldehyde anion exchange resin, linked through
glutaraldehyde treatment

SUMITOMO CHEMICAL KK 04.04.80-JP-045044

(14.10.81) A23c-09/12 A23c-21/02 C12n-11/08 C12p-19/02

20.03.81 as 301213 (478BZ) (E) No-citns. E(BE DE FR GB IT NL)

Lactase (I) from *Aspergillus oryzae* is immobilised on a macroporous phenol-HCHO anion exchange resin (II) by covalent attachment through a glutaraldehyde treatment. (II) has specific surface area at least 5 m²/g; a total vol. of macropores (100- 2000 Angstroms) at least 0.2 cc/g; and an anion-exchange capacity due to NH₂ and/or substd. NH₂ gps. at least 1 meq/g.

(I) originating from *A. oryzae* has optimum pH 4.5-5.0; Michaelis constant K_m ca. $0.1 + -0.05$ mol/l (pH 4.5, 30 deg.C, lactose substrate) and $0.3 + -0.15$ mol/l (pH 6.65, 30 deg., lactose substrate); and inhibition constant K_i by galactose of $(6 + -3) \times 10$ power -3 mol/l (pH 4.5, 30 deg., lactose substrate), and $(4 + -3) \times 10$ power -3 mol/l (pH 6.65, 30 deg., lactose substrate). Immobilised (I) has optimum pH 4.5-5.0: and K_m $0.2 + -0.1$ mol/l (pH 4.5, 30 deg., lactose substrate). (II) size is pref. 12-60 mesh.

(II) is immersed in an aq. soln. of (I) at 0-50 deg.C/pH 4-6.5; then treated with aq. 0.1-5% pref. 0.2-2% glutaraldehyde at pH 3.5-7.0/5-56 deg. (adsorption temp. pref. higher than glutaraldehyde treatment temp.). Amt. of (I) immobilised is not more than 200 mg/g dry carrier.

Immobilised (I) prepd. using a glutaraldehyde treatment has high activity, is very stable, and is effective over a wider pH range. The immobilised enzyme is esp. useful for the continuous industrial-scale hydrolysis of lactose. (25pp)

ABBO ★ D18 78085 D/43 ★ EP --37-687
Recombinant dna segment for insertion into plasmid - for
incorporation into microorganism that gives human urokinase in
cultivation

ABBOTT LABORATORIES 03.04.80-US-137032

B04 (14.10.81) C07h-21/04 C12n-01/20 C12n-09/52 C12n-15 C12r-01/12

27.03.81 as 301323 (1248AS) (E) No-Citns. E(BE DE FR GB IT)
Recombinant plasmid for transformation of a microbial host
comprising a plasmid vector into which a
polydeoxyribonucleotide segment that codes for plasminogen
activator protein has been inserted is new.

Transformant micro-organism including a recombinant plasmid comprising a plasmid vector into which a polydeoxyribonucleotide segment that codes for plasminogen activator protein has been inserted is new.

Polydeoxyribonucleotide segment coding for plasminogen activator protein is new. The segment has restriction endonuclease cleavage sites at its termini and a gene coding for the expression of plasminogen activator protein between the termini. Prodn. of plasminogen activator protein comprises culturing a transformant micro-organism that includes a recombinant plasmid. The plasmid comprises a plasmid vector having a polydeoxyribonucleotide segment that codes for the protein inserted into it. The culturing is in a nutrient medium and subsequently the protein is isolated from the medium.

The plasminogen activator protein is pref. urokinase, which is useful as a thrombus lysing agent in the treatment of thrombotic conditions. It can be obt'd. more readily than by the prior methods involving isolation from urine etc. (21pp)

REGC ★ D18 78097 D/43 ★ EP --37-723
Cloned DNA segments for expression in eucaryotic cells - useful
for prodn. of polypeptide hormones esp. human insulin

UNIV OF CALIFORNIA 07.04.80-US-137758

B04 (14.10.81) C07h-21/04 C12n-01/20 C12n-05 C12n-15 C12p-21/02

03.04.81 as 301460 (1248AS) (E) No-Citns. E(AT BE CH DE FR GB
ITLILUNLSE)

Cloned DNA segment derived from the human genome comprises

the gene for a polypeptide hormone, capable of being expressed in a eucaryotic cell is new. Microorganism contg. and replicating the DNA transfer vector is new.

Prepn. of human insulin comprises (a) prepn. of the cloned DNA segment (designated gHI 12.5 or 14.1) of paragraph (A) contg. the human insulin gene, (b) transforming a eucaryotic cell strain grown in culture with the segment, (c) selecting transformed cells capable of expressing the gene, (d) making a cell extract and (e) purifying insulin from the extract.

The cloned DNA fragments can be expressed in eucaryotic cells and the cells are then used for prodn. of polypeptide hormones, esp. human insulin. (23pp)

SANY ★ D16 78102 D/43 ★EP--37-736
Antibiotic mycoplancin derivs. prepn. - by cultivation of
Actinoplanes strain 41042. NRRL 11462

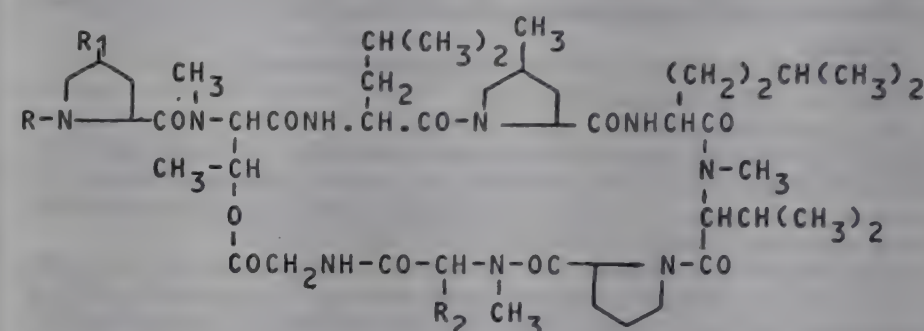
SANKYO KK 08.04.80-JP-046003 (07.04.80-JP-045402)

B04 (B02) (14.10.81) A61k-37/02 C07c-103/52 C12p-21/04

07.04.81 as 301502 (916KB) (E) GB2021558 E(AT CH DE FR GB)

Antibiotic mycoplanecins derivs. of formula (I) are new. In (I), R is H, N-(alpha-ketobutyryl) N-methylvalyl or N-(alpha-hydroxybutyryl) N-methylvalyl; R1 is methyl or ethyl and when R1 is methyl, R2 is isobutyl and when R1 is ethyl, R2 is pentyl.

(I) are antibacterial agents, esp. against mycobacterium.
(53pp)



NYEG ★ D16 78105 D/43 ★EP --37-742
Reagent for determ. of hydroxy-steroid in serum samples -
contg. enzyme, coenzyme, diaphorase, tetrazolium salt and non-
steroidal hydroxy:acid dehydrogenase

NYEGAARD A/S 09.04.80-GB-011730

B01 J04 S03 (S05) (14.10.81) C12g-01/32 G01n-33/74

08.04.81 as 301538 (1248AT) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Reagent for determin. of hydroxysteroids (I) in serum comprises a hydroxysteroid dehydrogenase (II), a coenzyme (III), for (II), diaphorase (IV), a tetrazolium salt (V) and an inhibitor (VI) of non-steroidal hydroxy acid dehydrogenases. The reagent is free from (I) and other serum components.

The reagent is esp. useful in the determ. of (I) in biological fluids e.g. serum, when steroids e.g., lactate dehydrogenase that might compete in the assay are deactivated by (VI). The reagent may also be used for determ. of hydroxyacids, which are converted to keto acids and a formazan dye is obtd. The procedure is useful in the study of steroid metabolism, in the study of bile acids, medical diagnosis etc. (15pp)

PLAK/ D16 57199 A/32 = GB 1601-031
Determining bacterial concn. by luminescence - of extracted
reactive microbial material sepd. from reactive material
extracted from non-microbial cells

PLAKAS C J 31.01.77-US-764180

B04 H04 S03 (21.10.81) *DE2804-117 C12q-01 G01n-21/76

30.01.78 as 003608 (965MR)

Detection of the presence of cells (I) in a sample comprising a mixt. of cells (I) and cells (II) comprises rupturing the walls of (II) to extract their reactive material content (IV) which is then removed. The walls of (I) are then ruptured to extract their reactive material content (III) which is then combined with a luminescence-causing reagent to generate light as a function of the amt. of (III) combined. The light generated is monitored.

Prof. the walls of (II) are ruptured using an enzyme and (IV) removed by placing the sample in a filter of appropriate pore size to hold (I). (IV) is rinsed through the filter. Prof. the walls of (I) are ruptured by contact with an extractant viz ether, acetone, CH_2Cl_2 , HNO_3 or dioctyl sodium sulposuccinate.

The process is more sensitive than the prior art. It is esp. used for determining microbial reactive material by bio- or chemiluminescence. (9pp)

PLAK/ D16 57199 A/32 = GB 1601-082
Determining bacterial concn. by luminescence - of extracted reactive microbial material sepd. from reactive material extracted from non-microbial cells

PLAKAS C J 31.01.77-US-764180

B04 H04 S03 (21.10.81) *DE2804-117 C12q-01 G01n-21/76

30.01.78 as 026055 Div ex 1601031 (965MR)

Detection of reactive material (I) from cells (II) in a sample (III) comprises rupturing (II) and extracting (I) from (III). (I) is then combined with a luminescence-causing reagent to generate light of intensity that is a function of the amt. of (I). The curve of the function gives 2 values of amt. of (I) for low light intensities.

A first test is run, of a given amt. of (III) to determine the light intensity. If the light intensity is low and hence ambiguous range, the amt. of (III) used is changed and a 2nd test run. If the tests have a negative slope of change in amt. of material to change in intensity, the lower of the 2 values obtd. in the first test is recorded. If a positive slope is obtd., the higher is recorded. Pref. (II) are microbial cells and are ruptured by heat or ultrasonics.

The sample may be e.g. milk or blood. The presence of a relatively small number of microbial cells in a sample may be detected. (6pp)

TEPR-★ D16 78309 D/43 ★GB 2073-882
Measuring colloidal stability of nutritional liquids - using laser light source and photo-piles for measuring light flux diffused by liq. sample

CENT RECH DEV TEPRA 24.03.80-FR-006464

S03 (21.10.81) G01n-21/51

24.03.81 as 009209 (1044)

Appts. for measuring the colloidal stability of liqs. such as nutritional liqs. e.g. beers, wines and other drinks obtained by fermentation, gaseous drinks and oils includes a cooling tank for contg. a sample holder and a laser ray light source.

A photopile is provided for analysing and measuring the light flux from the light source diffused through the sample and a reference photopile is provided for permanently controlling the intensity of the exciting beam emitted by the laser ray. A semitransparent mirror reflects a part of the exiting light beam in the direction of the reference photopile. (11pp)

WHIT/★ D16 78311 D/43 ★GB 2073-885
Detecting live organisms in materials - by recording light emitted when disrupted in presence of e.g. fire-fly essence

WHITLOCK G D 15.04.80-GB-012364

S03 (21.10.81) C12q-01/66 G01n-21/76 G01n-29

15.04.80 as 012364 (1251NS)

Live organisms are detected by causing them to produce bursts of light when disrupted in the presence of a light-producing agent (A), specifically firefly essence. Pref. the test material and (A) are first placed in contact, then the microorganisms disrupted so that they release components (esp. ATP) which react with (A) to produce light. The organisms are pref. disrupted by violent agitation with alumina, ballotini beads, sand or carborundum and light is detected as an electrical pulse from a photon detector. An appts. for this method is also claimed, it comprises a transparent container for sample and (A) (enclosed in a light-tight chamber), device for agitating the sample mixt. either gently or violently and photon detectors.

Very small numbers of bacteria or viruses (e.g. 10 per ml) can be detected in less than 10 sec. Impure reagents and samples (i.e. those contg. ATP) can successfully be examined. (7pp)

MELY-★ D16 D/43 ★HU T020-902
Aerobic and anaerobic fermenter for fertiliser prodn. - by fermenting manure and agricultural and/or food industry wastes
MELYEPTERV MELYEPIIT 15.06.79-HU-BA3792
C04 (D15) (28.09.81) C05f-03 C12d-13

SZOL-★ D16 D/43 ★HU T021-013
Wine stabilisation - by adding excess potassium hexa:cyano:ferrate and then heavy metal salt
SZOLESZETI ES BORAS 08.05.80-HU-001126
E31 (28.09.81) C12h-01

KYOW★ D16 78330 D/43 ★J5 6059-777
Antibiotic XK-213 used also as antitumoural agent - prepd. by culturing strain of streptomyces esp. Streptomyces echinosporus
KYOWA HAKKO KOGYO KK 23.10.79-JP-135884
B04 (B02) (23.05.81) A61k-31/35 C07d-493/08 C12n-01/20 C12p-17/18

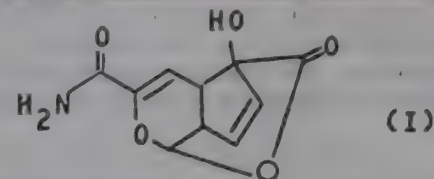
23.10.79 as 135884 (140PW)

Antibiotic XK-213 of formula (I) is new. Properties of (I) are (a) appearance: white power or crystals, (2) melting pt.: 260 deg.C (decompsn.), (3) PMR (CD3OD) delta (ppm): 2.95-3.25 (2H), 5.99 (1H, t, J = 1.5), 6.22 (1H, d, J = 5.9), 6.28 (1H, d, J = 5.7), 6.45 (1H, dd, J = 3.8, 5.7), (4) CMR (DMSO-d6) delta (ppm): 171.8, 161.8, 142.7,

C10H9NO5, (6) specific rotatory powder: (alpha)D25 = 400 deg. (c = 0.1, methanol), (7) given UV spectrum, (8) IR spectrum (KBr) cm-1: 3500, 3300, 1740, 1685, 1650, 1600, 1400, 1360, 1325, 1285, 1270, 1110, 1090, 1065, 1020, 1005, 915, 840, 785, 770., (9) solubility: soluble in water, methanol, DMF, insol. in ethyl acetate, ethyl ether, n-hexane, (10) colour reaction: false positive in ninhydrin reaction.

Prepn. comprises cultivating an XK-213-producing strain belonging to the genus Streptomyces (specifically Streptomyces MK-213, FERM-P No.5229) and recovering XK-213 from the culture.

XK-213 is useful as antibiotic and antitumour agent. (8pp)



LIOY★ D16 78648 D/43 ★J5 6115-712
Orally administrable compsn. e.g. dentifrice - contg. propylene glycol and sorbitol together with dextranase

LION DENTIFRICE KK 20.02.80-JP-020283

A96 B05 (11.09.81) A61k-07/28

20.02.80 as 020283 (42KB)

Compsn. (I) contg. propylene glycol (II) and sorbitol (III) with dextranase is new. To prevent formation of tartar, a cause of dental caries, dextranase is added in an orally administered compsn. such as dentifrice. But dextranase is easily decomposed by the actions of water and anionic cpds. in the compsn., losing its activity. (I) was derived from the finding that the addn. of (II) and (III) in (I) stabilises dextranase. (I) is used as dentifrice, tooth powder, tooth paste, mouth wash, gargle, troche, etc.

The wt. ratio of (II)/(III) used is 1/6-1/60. The content of (II) in (I) is 1-5wt.%. Other polyalcohols such as glycerol, polyethylene glycol, xylitol, mannitol, etc. is used with (II) and (III). The amt. of dextranase added in (I) is 100-100,000 unit/g-(I), e.g. (1000-50,000 unit/g-(I)), where 1 unit of dextranase decomposes dextran into 1 microgram of glucose in one min. The addn. of alkali metal monofluoro phosphate is also effective for stabilisation of dextranase. (5pp)

ENDO/★ D16 78653 D/43 ★J5 6115-717
Monacolin K or ML-236B derivs. prepn. - useful to prevent and treat hypertrophy

ENDO A 19.02.80-JP-019386

B04 (11.09.81) A61k-31/36

19.02.80 as 019386 (108BZ)

Preventative and treating agent for hypertrophy contains as active component monacolin K or ML-236B or deriv. thereof. ML-236B produced by Penicillium citrium, monacolin K produced by Monascus tuber.

Derivs. of ML-236B and manocolin K are carboxylic acid, carboxylic acid ester, metal salt of the carboxylic acid and amino acid salt. The derivs. are known to have very low toxicity and to have cholesterol-lowering activity. These cpds. show excellent effect in the prevention and treatment of hypertrophy.

Monacolin K carboxylic acid or ML-236B carboxylic acid is prepd. by neutralizing the monacolin K carboxylic acid metal salt or ML-236B carboxylic acid metal salt. The metal salt is prepd. by saponification with weak alkali. The metal salts are alkali metal salt (sodium, potassium), alkaline earth metal salt (calcium magnesium), aluminium salt, iron salt, zinc salt, copper salt, nickel salt, cobalt salt. Partic. suitable are alkali metal salt, alkaline earth metal salt and aluminium salt. The amino acid salt of monacolin K or ML-236B is prepd. by contacting monacolin K carboxylic acid or ML-236B carboxylic acid with amino acid. Amino acid salts are arginine salt, lysine salt, histidine salt etc. The monacolin K carboxylic acid ester is new cpd., and is prepd. by reacting monacolin K with alcohol in the presence of catalyst such as hydrochloric acid or sulphuric acid. The dosage is 0.5-1,000 mg/Kg/day. Admin. is orally, intravenously or intraperitoneally. (4pp)

KYOW★ D16 78703 D/43 ★J5 6115-79
Antitumour agent DC-11-A-2 - prepd. by culturing Micromonospora strain

KYOWA HAKKO KOGYO KK 15.02.80-JP-017498

B04 (11.09.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/20

15.02.80 as 017498 (69AS)

New antibiotics DC-11-A-2 (I) has specified physicochemical properties includes (1) m.pt. 192-196 deg.C, and (2) analysis: C 60.8 H 7.4; N, 2.3 (%). (I) may be produced by culturing Micromonospora strain in nutrient culture medium.

(I) has antitumour activity. Strain is e.g. Micromonospora Chalcea KY 11091 strain, FERM-P No.458 and NRRL No. 11289

RIKA ★ D16 78704 D/43 ★ J5 6115-795
Antibiotic mucopeptin B - inhibits Gram negative bacteria and anti-acidic bacteria

RIKAGAKU KENKYUSHO 19.02.80-JP-019647

B04 (11.09.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/46
19.02.80 as 019647 (69NS)

Mucopeptin B has the following physicochemical and biological properties: (1) Anal. found: C, 55.12; H, 6.24; N, 9.47; S, 2.74 (%) (2) Molecular wt. (by titration equivalent) 1022 (3) M.pt.: 196-200 deg. C (decomp.) (4) Degree of specific rotation: (alpha)D₂₅-3.7 degrees (C/0.92, 50% methanol) (5) Ultraviolet absorption spectra. Lambda max. microns (E(1%)1 cm) in water and 0.01 N HCl: 258 (178) in 0.01 N sodium hydroxide aq.: 240 (267) (6) Infrared absorption spectra (Main max. value in KBr): 3370, 2930, 1650, 1535, 1490, 1455, 1385, 1255, 1170, 1095, 1065, 1040, 870, 805, 775, 690, 625, 570, 545 cm⁻¹ (7) Solubility: Soluble in water, methanol, aq. acetone and dimethyl sulphoxide. Difficult soluble in acetone, ethyl acetate, chloroform, benzene, ether and petroleum ether. (8) Colouration reaction Positive to ninhydrin reaction, potassium permanganate, Leidon Smith reaction; Negative to iron chloride reaction, 2,4-dinitrophenyl-hydrazine reaction, Fehling reaction, Toren's reaction, periodic acid-benzidine reaction etc.

Mucopeptin B may be produced by culturing antibiotic Mucopeptin B-producing microbe of Streptomyces genus (II) and isolating and removing antibiotic Mucopeptin B from the culture mixt. (II) is pref. Streptomyces sp. K-64 (FERM-P No. 5387). (8pp)

RIKA ★ D16 78705 D/43 ★ J5 6115-796
Oligosaccharide C - produced from Bacillus culture

RIKAGAKU KENKYUSHO 18.02.80-JP-019594

B04 (11.09.81) C07h-03/06 C12p-19 C12r-01/07

18.02.80 as 019594 (69AT)

Novel oligosaccharide C (I) has the following physicochemical properties; analysis C, 41.81%; H, 6.80%; mol. wt.: 504; m.pt.: 90 deg. C; Infrared absorption spectra: absorption band at wave number at 1150-980, 885, 860, 770, 700 (cm⁻¹). The cpd. is easily soluble in water; insoluble in acetone, alcohol, chloroform and benzene; difficultly soluble in aq. alcohol. Colouration reactions are positive to aniline-phthalic acid reaction and ammonia-silver nitrate reaction and negative to Ninhydrin reaction and ferric chloride reaction. (I) contains galactose and glucose (beta-D-bond) bonded sugars and is formed of white needle crystals.

(I) is produced by culturing novel oligosaccharide C-producing Bacillus, and isolating (I) from the culture mixt. As (I)-producing Bacillus, Bacillus sp. No. 177-8 (FERM-P No. 5393) may be used.

Oligosaccharides are used as biochemical reagent and have biological activity as pharmaceuticals. (7pp)

AGEN ★ D16 78709 D/43 ★ J5 6115-950
Enzyme electrode for determining urea - comprises urease-fixed photohardened film with ammonia electrode for excellent flexibility and strength

AGENCY OF IND SCI TECH 18.02.80-JP-019541

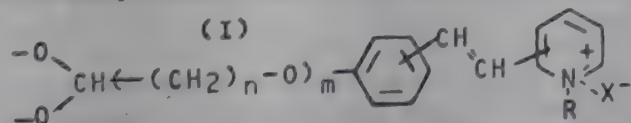
A96 B04 J04 (11.09.81) C12n-11/08 C12q-01/58 G01n-27/40

18.02.80 as 019541 (50RP)

The enzyme electrode is produced by joining urease-fixed photohardened film of photocrosslinking deriv. in which at least part of hydroxyl gps. in (partially) saponified polyvinyl acetate is substd. by group of formula (I), (where R is H atom, (un)substituted alkyl or aralkyl, X(-) anion, m 0 or 1, and n integer of 1-6), with ammonia electrode.

Partially or completely saponified polyvinyl acetate used has degree of polymerisation of 400-3000 and more than 75% rate of saponification. Urease is mixed into aq. soln. of the photocrosslinking resin, and the soln. is flowed on e.g. glass plate and dried, forming an urease-fixed film. The film is closely stuck onto ammonia electrode, forming an enzyme electrode.

As urease fixed on the photohardened film is very stable for long period and the fixed film has excellent mechanical strength and flexibility, the enzyme electrode can retain stable output potential for long period. The concn. of urea in living body fluid can be accurately determined by the electrode. (7pp)



HITA ★ D16 78767 D/43 ★ J5 6116-701
Pretreatment of cellulosic material for biochemical decomposition - comprises contacting the material with ozone to breakdown lignin

HITACHI KK 21.02.80-JP-019830

E36 (D17) (12.09.81) C08b-01

21.02.80 as 019830 (83JB)

Method comprises contacting cellulosic material (I) of water

content at least 10 wt.% with ozone. (I) is e.g. straw, sawdust, waste paper, etc. Cellulosic material is fed into a reactor from the top downward, while ozone, produced in a generator, is fed upward into the reactor to contact countercurrently with the cellulose. The amt. of ozone consumed is at least 0.005 g/g cellulose.

The method effectively destroys crystalline structure of cellulose and decomposes lignin contained in (I), facilitating biochemical decompositions of cellulose by cellulase. (6pp)

KANF D16 24211 W/15 = J8 1041-229
Increasing growth rate of yeast culture - by addn. of carnitine, its precursors or derivs to medium

KANEGAFUCHI CHEM KK 12.01.74-JP-006736

(26.09.81) *BE-822-067 C12n-01/38 C12r-01/84

12.01.74 as 006736 (DH)

Micro-organism belonging to one of the genera Saccharomyces, Pichia, Saccharomycopsis, Rhodotorula, Candida, Torulopsis or Trichosporon is cultivated under aerobic conditions in a nutrient medium which can be assimilated by the micro-organism and contains carnitine, one of its precursors or derivs.

Suitable micro-organisms are Saccharomyces cerevisiae or rouxii, Pichia farinosa or membranaefaciens; Saccharomycopsis lipolytica; Rhodotorula rubra; Candida novellus, tropicalis, lipolytica, arborea, guillemondii or rugosa, etc. The nutrient medium pref. contains a C source e.g. sugars, oils, fat, alcohols, org. acids or hydrocarbons.

Suitable precursors of carnitine are crotono- and butyrobetaine and suitable derivs. are acetyl- propionyl-, butyryl-, palmitoyl- and stearoyl-carnitine.

The speed of cell growth is increased, thus shortening the process time, increasing the yield and avoiding the danger of contamination. (J50100281) (3pp)

HOFF D16 40217 V/22 = J8 1041-230
Carcinoma-embryonic antigen prodn.in-vitro - from human tumours, trans-planted into hamsters and incubated in specif. medium

HOFFMANN-LA ROCHE AG 09.11.72-US-305197

B04 (26.09.81) *DE2314-076 C12n-05 + A61k-39 C12p-01

05.04.73 as 038332 (TM)

Transplanted tumour-cells (pref. originating from the colon) are degraded with mucine-degrading and with proteolytic enzymes before incubation in a medium contg. glucose, salt-solns., vitamins, aminoacids, phenol-red, antibiotics, calf-serum and NaHCO₃ at pH 6.8-7.4 and temp. 35-38 deg. (J49100285) (7pp)

UPJO D16 19360 V/10 = J8 1041-231
Antibiotic steffimycin B - prepd from streptomyces elgreteus Dietz SP N

UPJOHN CO 28.08.72-US-283908

B04 (26.09.81) *US3794-721 C07g-11 C12r-01/46 + A61k-35/74 C12p-01/06

31.07.73 as 085507 (TM)

Title cpd. (I) and its non-toxic base addn. salts has the following props.: (alpha)25 = +94 (c, 2, CHCl₃), UV: (EtOH) max at 234 microns (alpha = 47.3); (0.1N alcoholic KOH) max. at 233 microns (alpha = 53.7); (0.1N alcoholic HCl): max at 234 microns (alpha = 43.7), has characteristic IR NMR spectra and Rf (all reproduced in spec.), elemental analysis C, 58.68; H, 5.58; 0.35, 74; and mol. wt. is 588 as determined by mass spectrometry.

(I) is prepd. by cultivating streptomyces elgreteus sp.n. in an aq. nutrient medium under aerobic conditions. (J49042895) (15pp)

SHEL D16 76594 U/50 = J8 1041-232
Fermentative prodn of brefeldin -a - by culture of a phyllosticta

SHELL INT RES MIJ BV 22.05.72-GB-023949

C02 (26.09.81) *NL7306-951 A01n-43/22 C12p-17/08 C12r-01/64

18.05.73 as 054813 (KB)

H₂S is removed from molten S by passing an oxidising gas under slightly elevated pressure in a finely divided state into the S, pref. in the presence of a very small amt. (10-500 ppm.) of a N-cpd. This reduces the H₂S content to e.g. less than 30 ppm. Specif., the N-cpd. is ammonia, ammonium salt, amine, (hydrox)alkylamine, urea diisopropanolamine or pref. diethanolamine.

The oxidising gas is air, or a mixt. of an inert carrier gas and O₂ and/or SO₂. (J49054588) (2pp)

TAKE D16 08506 W/05 = J8 1041-235
3'-and 5-phosphoric acid esters of xylostasine - used as synthetic inters for broad-spectrum antibiotics against strains resistant to aminoglycoside antibiotics

TAKEDA CHEMICAL IND KK 09.07.73-JP-077260

B04 (26.09.81) *NL7409-023 C12p-19/50 C12r-01/38

09.07.73 as 077260 (AT)

3'- and 5-phosphoric acid esters of -xylostasine (I) are prepd. by contacting xylostasine with cells or cell materials of a micro-

organism belonging to the genus *Escherichia* or *Pseudomonas* resistant to xylostasine, in a solvent and in the presence of a phosphate donor.

(I) are used in the prepn. of halodeoxyxylostasine and deoxyxylostasine which have high inhibitory activity against Gram-positive, gram-negative, and acid-resistant bacteria and strains resistant to aminoglycoside antibiotics. These may be used as anti-*Pseudomonas* agents, against dysentery and as agents against *Staphylococci* infections. (J50024491) (4pp)

BRIY D16 02618 W/02 = J8 1041-236
Anti-biotic complex BU 1975 - from *B. circulans* and contg. ambutyrosin and its deriva

BRISTOL BANYU KK 13.09.73-JP-102623 (13.09.72-US-288623)
B04 (26.09.81) *J49066-891 + A61k-31/71 C07h-15/22 C12p-19/50 C12r-01/09

13.09.73 as 102623 (AS)

Antibiotic complex, BU 1975, was produced by *Bacillus circulans* l.var.croceus C 308-B4 (FERM-P 2230), l.proteophilus C 436-B1 (FERM-P2231), or l.biotinicus C 532-B2 (FERM-P 2232). Components C-1(4'-deoxyambutyrosin) and C-2(4'-deoxyambutyrosin B) could be sepd. from the complex. They were effective against gram pos. and neg. bacteria esp. against *Klebsiella pneumonia* A 20680 and *Escherichia coli* A 20683. C-1 and C-2 were white amorphous solid bases, sol. in water, slightly sol. in MeOH and EtOH, and insol. in n-BuOH and Me2CO. They are positive to ninhydrin and anthrone but give negative reaction in Tollens, Fehling, and Sakaguchi's reagents. LD50 of C1 was 1 g/kg. in mic (admin. intravenously).

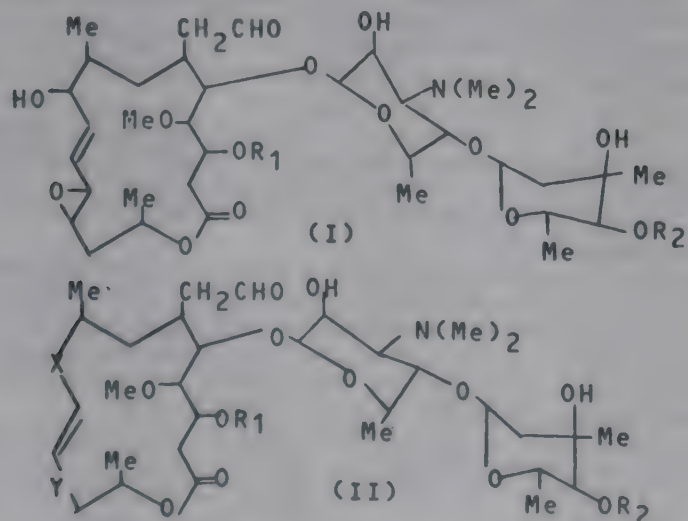
Strain C 532-B2 was cultured (with shaking) at 28 deg.C. for 6 days in a medium contg. soybean powder 3, corn starch 2, CaCO3 1, and MgSO4.7H2O 0.33%. The antibiotics in the culture filtrate were adsorbed on Amberlite IRC-50 (NH4+) eluted with 1 N NH4OH, conc., and extd. with n-BuOH. Component B was obtained by evapn. The water phase of BuOH extn. was concd. and passed through a column of Amberlite CG-50 (NH4+). A1 (ambutyrosin A), A2 (ambutyrosin B), C1, and C2 were eluted with 0.5 N NH4OH in this order. Purified C1 and C2 were obtained in 180 and 120 mg. yields, resp., from 17 l. culture broth by repeated chromatography on CG-50. (J49066891) (17pp)

TAKE D16 54752 W/33 = J8 1041-237
Macrolide antibiotic prepn - using the cells, or the enzyme prepn., of *Streptomyces*

TAKEDA CHEMICAL IND KK 17.07.73-JP-081923
B02 (26.09.81) *J50035-391 + C12p-19/62 C12r-01/46
17.07.73 as 081923 (MR)

A macrolide antibiotic of formula (I), (where X is CO or CHO; Y is -CH:CH- or CH(O)-CH; and R1 and R2 are lower alkanoyl), by the cells, or the enzyme prepn. of *Streptomyces*.

In an example, *S. hygroscopicus* ATCC 21, 582 was cultured on a medium (pH 7.0) contg. 3% glucose, 0.5% corn steep liquor, 1% meat extn., 0.5% NaCl, 0.05% MgSO4, 0.1% K2HPO4, 0.05% KCl and 0.3% CaCO3 at 28 deg.C for 48 hr. The washed cells (2 g.) were suspended in 20 ml. of 0.1 M phosphate buffer (pH 6.0), added with 1 ml. of 0.1% succinic acid soln. contg. 10 mg. dissolved leucomycin A3, and the mixt. was reacted by shaking at 28 deg.C. overnight. B-5050B was produced at 9 mg. It was extd. with EtOAc at pH 8.0 and concd. under reduced pressure yielding 7 mg. powder. (J50035391) (6pp)



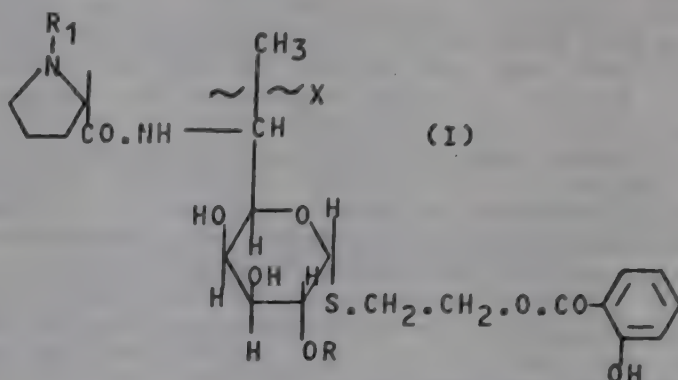
UPJO D16 41464 V/22 #J8 1041-239
Antibiotic N-demethylcelesticetin derivs. - prepd. by fermentation of *Strepto-mycas caelestis* strain 22218A

UPJOHN CO 12.06.72-US-261724 (25.07.73-JP-083231)

B03 (26.09.81) *US3812-096 A61k-31/71 C07h-15/16 C12p-19/64 C12r-01/46

25.07.73 as 083231 (TM)

Cpds. are of formula (I): (where X = -OH, -Cl, -Br, -I or up to 20C alkoxy in the (R) or (S) configuration; R = up to 18C hydrocarbon carboxylic acid acyl or up to 18C halo-, nitro-, hydroxy-, amino-, thiocyno- or lower alkoxy-deriv. or -PO(OH)2 and R1 = H, 2-20C alkyl or 2-5C hydroxyalkyl) or their salts. (J50031094) (23pp)



UPJO D16 16826 V/09 = J8 1041-240
Biosynthesis of lincomycin - using a new streptomyces variable strain without lincomycin B by-prodn

UPJOHN CO 08.08.72-US-278784

B03 (26.09.81) *NL7310-871 + C12p-19/64 C12r-01/46

31.07.73 as 085508 (TM)

Lincomycin uncontaminated by lincomycin B is produced by culturing *Streptomyces variabilis* chemovar liniabilis Dietz vat. nova (NRRL 5618) or its mutant in an aq. nutrient medium (pref. contg. sources of assimilable carbohydrate and N) under aerobic conditions, and pref. isolating (I) from the fermentation broth. (J49042891) (11pp)

YAMA D16 29215 Y/17 = SU-799-668
(7)-Methoxy cephalosporins fermentative prodn. - using *Streptomyces* species in a thiol contg. medium, and opt. oxidative deamination of side chain

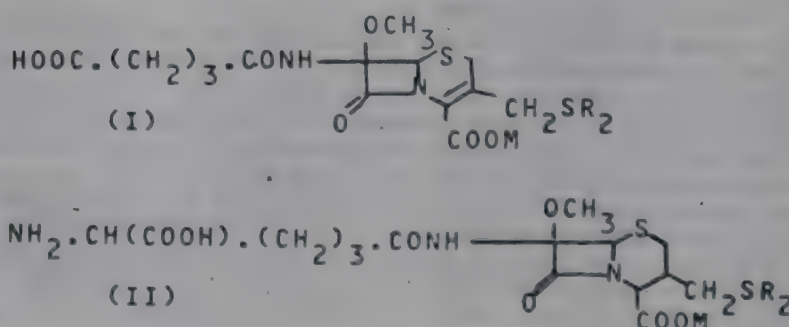
YAMANOUCHI PHARM KK 26.07.76-JP-088770

B02 (25.01.81) *BE-849-763 A61k-31/54 C07d-501/36 C12p-35

25.12.76 as 433852 (GW)

Prod. of a cephalosporin of formula (I) (R2 is N-contg. heterocyclyl and m is H or salt forming cation) comprise cultivating a *Streptomyces* species which produced 7-methoxy cephalosporin in a nutrient medium, which additionally contain the thiol R2SH or its precursor. The intermediate of formula (II) is formed and this is subjected, under aerobic conditions, to microorganisms of the genus *Trigonopsis* which produce D-amino acid oxidase, or cellular extracts of such microorganism.

(I) and (II) are antibiotics active against Gram positive and negative bacteria, esp. *Pseudomonas* and proteus species. Bu 3/23.1.81. (13pp)



MAGA = ★ D16 78990 D/43 ★ SU-799-7
Brown colourant for brandy and foodstuffs - prepd. by heating sugar, grape yeast hydrolysate and sodium bicarbonate caramelised in presence of ammonium salt e.g. chloride

MAGARACH WINEMAKING(ASBI =) 08.01.79-SU-710240

(03.02.81) A23g-03/32

08.01.79 as 710240 (835VE)

Coloration for brandy is made from a heated mixture of sugar yeast and NaHCO3. Process time is curtailed and a product greater tinctorial props is secured by operating as follows: 2-11

conducted at pH 2.0-5.0.

NaHCO₃ is added 25-35 min. after boiling has started and the H value rises to 8-10. 3-5 min. after boiling has ceased, 0.03-0.1% of an NH₄ salt is added, e.g. (NH₄)Cl. (2pp)

NONA = ★ D16 79120 D/43 ★ SU-800-183
 Prodn. of rye malt for beer etc. mfr. - includes germination of grain irrigated with water contg. gibberellic acid and treatment with calcium chloride soln.

NON ALCOHOLIC BEER (MOFO =) 23.03.79-SU-742440
 (30.01.81) C12c-01

23.03.79 as 742440 (938GW)

Rye malt is prepd. for use in brewing and soft drinks mfr., by soaking cleaned and sorted grain in water, followed by grain germination while irrigating the grain with water and thermally treating the germinated grain to obtain malt.

Rye malt with improved extractive characteristics and dry material content is obtd. if, during the irrigation of germinating grain with water, the grain is treated with gibberellic acid in amts. of 0.1-0.25mg acid per 1 ton of grain. The germinated grain is then treated with calcium chloride soln. in amts. of 0.1-0.3 wt. % followed by heat treatment. Bul.4/30.1.81. (2pp)

DAGE = ★ D16 79121 D/43 ★ SU-800-184
 Prodn. of dry brewing wort concentrate - includes evapn. of wort, foaming concentrate and dehydration in hot air stream

DAGESTAN POLY 03.04.79-SU-749790
 Q76 (30.01.81) C12c-09/08 F26b-03/02

03.04.79 as 749790 (938GW)

Dry brewing wort concentrate prodn. includes evapn. of wort, foaming the wort concentrate and drying it in a hot air stream. The dry material (which can be completely regenerated into the original wort without the loss of its organoleptic characteristics or flavour) can be obtd. by the concn. of the starting wort to 50-70% dry material content. The concentrate is then foamed to increase its volume by 1.5-2.5 times and the foamed prod. is dehydrated in hot air to 5-7% moisture content followed by cooling. The final prod. has low hygroscopicity. Bul.4/30.1.81. (2pp)

FERM = ★ D16 79122 D/43 ★ SU-800-185
 Glucoamylase microbiological prodn. - includes culturing of *Aspergillus awamori* fungal strain in nutrient contg. cornflour hydrolysate and ammonium phosphate

FERMENTATION PRODS 24.03.79-SU-745896
 (30.01.81) C12d-13/10

24.03.79 as 745896 (938GW)

Microbiological prodn. of glucoamylase enzyme, for use in alcohol mfr. from starch or molasses, includes culturing *Aspergillus awamori* 466 microbial producer strain contg. cornflour enzymic hydrolysate (obtd. by hydrolysis of starch with alpha-amylase or malt enzymes).

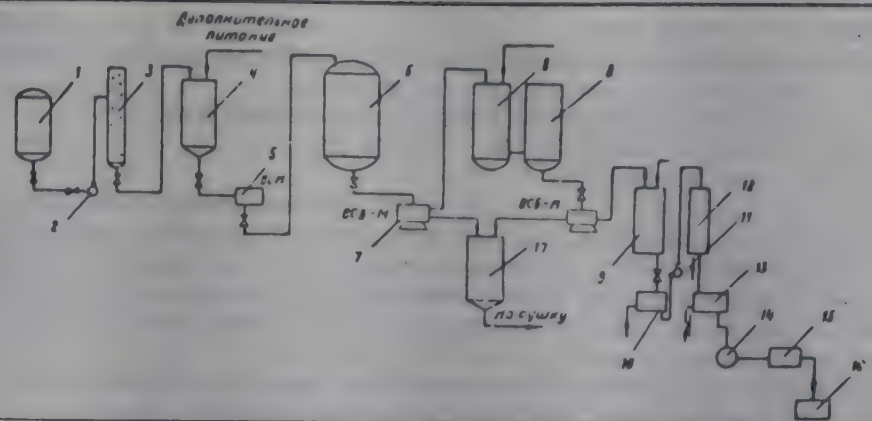
The corn starch hydrolysate is sepd. into two streams. One stream is fermented and the other is diluted to 6-7% of dry material content. It is then used in culture medium contg. starch magnesium nitrate, potassium phosphate potassium chloride, iron sulphate and malt for culturing above strain for 22-24 hrs. at 28-30 deg. C. The cornflour is hydrolysed for 30-40 mins. at 58-60 deg. C. The nutrient is treated with diammonium phosphate in two stages using 0.2-0.4 vol. % in the first stage and 0.1-0.2 vol. % in the second stage at 20-24 hrs. interval. Bul.4/30.1.81. (3pp)

FERM = ★ D16 79123 D/43 ★ SU-800-186
 Molasses alcoholic fermentation slop utilisation - includes propagation of fodder yeast cells and sepn. of biomass from nutrient

FERMENTATION PRODS 28.04.79-SU-761999
 (02.02.81) C12d-13/10

28.04.79 as 761999 (89VE)

Fuller usage of components in the molasses spent wash of alcohol production and improved purifcn. of process water are achieved by growing fodder yeast on the wash. The biomass is sepd. from the nutrient by subjecting the latter to biological treatment with active sludge. The derived biomass is then sepd. from the nutrient and mixed with yeast to obtain a proteinaceous fodder while the sepd. fraction is defecated and carbonated. The process water is filtered by sulphocarbon, and two purifcn. stages are applied with reverse osmosis through microporous membranes. The molasses wash from collector (1) is pumped to heat exchanger (3) where it is cooled to 20-25 deg. C before transfer to wash collector (4) of separator (5). The centrifuged product is then fed to fermenter (6) followed by separator (7) of fermenter (8). The biomass filtrate is directed to defecator (9) discharging into centrifuge (10) connected to carbonator (12). Bul.4/30.1.81. (3pp Dwg.No.1)



KDPO = ★ D16 79124 D/43 ★ SU-800-187
 Prodn. of red table wine - includes preliminary alcoholic fermentation of grape pulp and extn. with fermented must

KRASD POLY 27.04.79-SU-762406
 (02.02.81) C12g-01/02

27.04.79 as 762406 (938GW)

Red table wine prodn. includes pressing grapes, partly fermenting, removing grape juice in the residual pulp, followed by the extn. of the resulting grape pulp with fermented grape fruit. The final prod. quality is improved and its prodn. costs are reduced without the loss of the flavour etc. if the juice is fermented until all the sugar is used-up and then partly fermented grape pulp is extd. with the fermented must before the next stage fermentation.

Pref. the preliminary fermentation of grape pulp is conducted until its sugar content is reduced to 40-60% of its original value before the extn. of first stage fermentation prods. Bul.4/30.1.81. (2pp)

MAGA = ★ D16 79125 D/43 ★ SU-800-188
 Prodn. of brandy-type spirit - includes fractional distn. of grape spirit and collecting fraction of specified alcohol content

MAGARACH WINE MAKIN 29.08.78-SU-658618
 (02.02.81) C12c-03/12

29.08.78 as 658618 (938GW)

Brandy-type spirit is obtd. by distilling fermented grape juice, redistilling the raw spirit collecting head, middle and tail fraction and redistilling the middle fraction. The yield of the brand-type spirit is increased and the quality of the final prod. is improved if, during the distillation of wine, the distillate is collected until its alcohol content is increased up to 8-10 vol. %. It is then redistilled.

The tail fraction is then recirculated to the first-stage distillation. The middle fraction is redistilled until its alcohol content is reduced to 25-30 vol. %. In the process, the tail fraction is recirculated five times. Bul.4/30.1.81. (3pp)

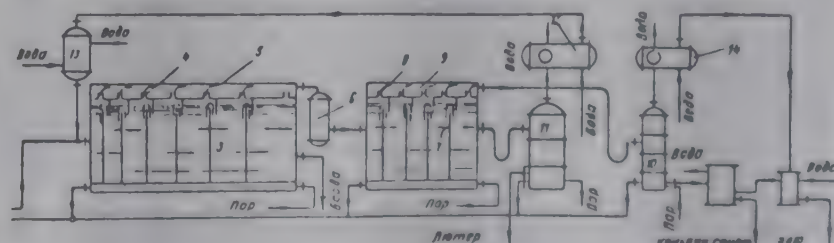
FOOD = ★ D16 79126 D/43 ★ SU-800-189
 Brandy-type spirit prodn. - includes concn. of low wines in second stage using condenser after distillation column

FOOD IND CORRESP 09.04.79-SU-753659
 (02.02.81) C12g-03/12

09.04.79 as 753659 (89VE)

Increased output of high quality brandy spirit is achieved with the second stage of extractive boil producing feints contg. 0.5-1.0% in volume of alcohol. The concentration is carried out by distilling in an additional column followed by condns. The tailings of the distillate exhibit alcohol content of 10-15% in vol. for returning to the stage of evaporating the alcohol from the wine.

The wine is pumped to the preheater where its temperature is raised to 85-90 deg. C before the transfer to evaporator (3). The wine is gradually losing the alcohol while the alcohol vapour is fed into collecting chamber (5) in upstream of condenser (6). The hot raw alcohol flows into evaporator (7) followed by collecting chamber (9) and stripping column (10) connected to separating column (11) and dephlegmator (12). The ester-aldehyde fraction is drawn off to cooler (14) for wine enrichment. Bul.4/30.1.81. (3pp)



MOSN ★ **D16** **79127 D/43 ★ SU -800-190**
Contaminated wine purificn. - includes addn. of copper sulphate soln. to remove hydrogen sulphide impurity

MOSCOW NATECONOMY INST 19.04.79-SU-758788

E36 (30.01.81) C12h-01/02

19.04.79 as 758788 (938GW)

Hydrogen sulphide is removed from contaminated wine during its mfr. by treatment of wine with copper sulphate soln. The flavour of the final prod. is improved and the hydrogen sulphide is completely removed without the change of wine colour or its bouquet by using 150-160g/l copper sulphate soln. in amts. of 0.01-0.1ml soln. for each litre of wine to be purified.

The process is fast and cheap and can be used in treating wine contg. up to 5mg/l hydrogen sulphide. Bul.4/30.1.81. (2pp)

ASBI = ★ **D16** **79128 D/43 ★ SU -800-191**
Microbial cell disintegrating unit - includes cylindrical housing with bottom groove cheek plates for clamp below drive shaft

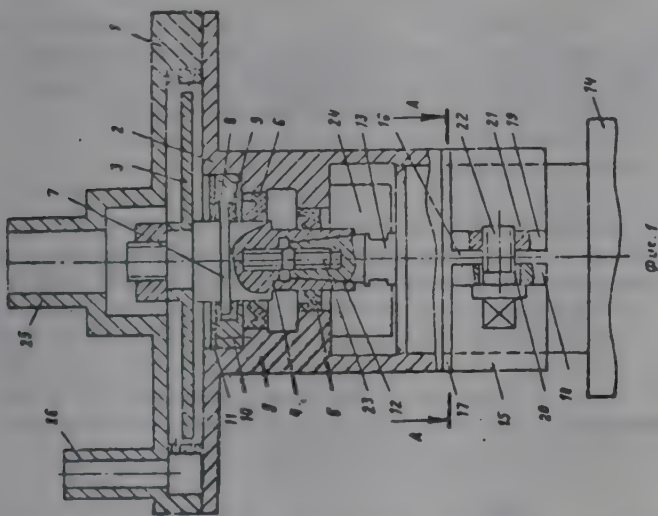
AS USSR BIOLOG INSTR 09.11.78-SU-684790

P41 (30.01.81) B02c-15 C12k-01/10

09.11.78 as 684790 (89VE)

Easier servicing of microbial cell disintegrator and ensuring the sterility when handling pathogenic and toxic materials are achieved with the cylindrical housing. The latter has a longitudinal slot with cheek plates (18/19) the holes of which carry the clamping screw (22). The transverse slot above the plates holds the drive shaft (13) and ports (24) in housing (5) provide access to both shafts (4/13) which are connected by stud (23).

After the disintegrator, the grinding chamber (1) is washed with the solution handled by nipples (25/26) and a spanner turns shaft (4) while shaft (13) is braked. This allows stud (23) to be withdrawn shifting housing (5) for its removal for sterilisation together with chamber (1). Bul.4/30.1.81. (3pp Dwg.No.1)



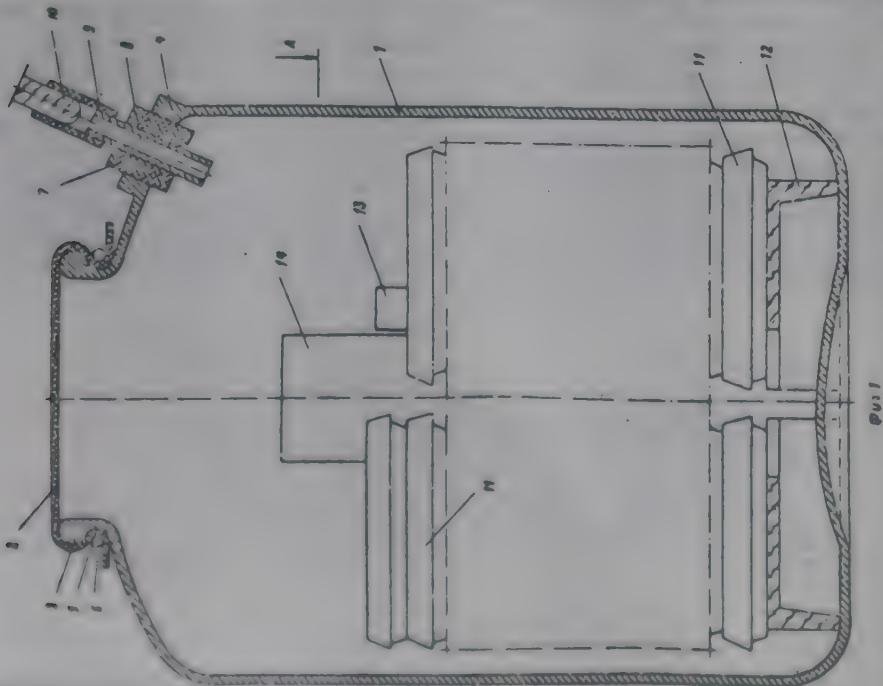
AMBI = ★ **D16** **79129 D/43 ★ SU -800-192**
Microorganisms anaerobic culture unit - has container neck with transverse groove for holding gas impermeable cover

A MED BIOL MODELS 10.04.79-SU-753669

(30.01.81) C12k-01/10

10.04.79 as 753669 (89VE)

Simplified unit for anaerobic cultivation of microorganisms has a



vessel throat with a transverse groove for fastening the cover. The gas exhaust is ensured by a longitudinal groove, and the cover is made of a gas impermeable material.

The culture vessels (11) with their inoculum are placed in the holding vessel (1) together with the oxygen absorber located in cylindrical container (14). The inserted test tube (13) includes the oxygen indicator and the CO2 generator. After the placement of cover (2) secured by ring (6), the air is expelled by an inert gas which expands the cover which is raised to free the longitudinal groove for exhausting excess gas. The exhaust restores the balance and the groove is then resealed by the cover. Bul.4/30.1.81. (5pp Dwg.No.1)

BIOT = ★ **D16** **79130 D/43 ★ SU -800-193**
Air microbiological analyser - has vessels with inward flange and bottom gas feeding tube using outer flange

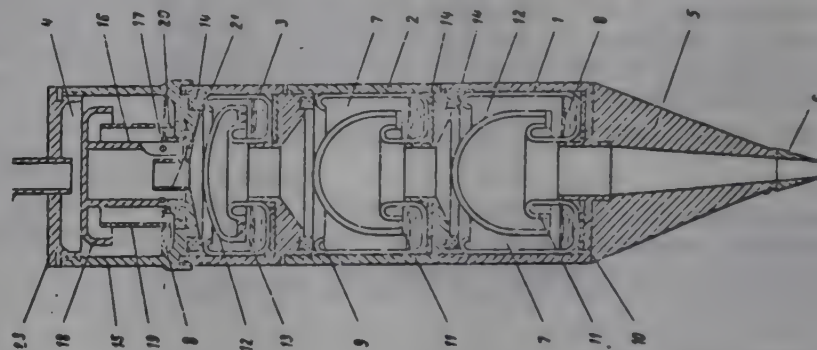
BIOTECH RES INST 25.04.79-SU-760179

(30.01.81) C12k-01/10

25.04.79 as 760179 (89VE)

The accuracy of microbiological analysis of air is enhanced the sampling from ascending air flow is made possible with each vessel featuring an inside flange. The lower pipe in the centre feeds the gas from the section below and the top of the tube has an external flange above a hood. The wall of the latter and the tube flange form the nozzle.

The sampling is preceded by filling the vessels (7) and cyclone (4) with 10 ml. of liquid nutrient (8) followed by their placement in sections (1-3). The tip (6) is threaded on the streamlining unit (5) on which section (1) is placed. The nozzle of the latter ensures the deposition of particles above 10 micron and then section (2) is fitted for particles above 7 micron followed by section (3) for particles above 5 micron. The end is formed by cyclone (4) while air is admitted through tip (6). Bul.4/30.1.81. (4pp)



DONE = ★ **D16** **79131 D/43 ★ SU -800-194**
Microbial cells cultivating chamber - has housing with guides for cassettes using covering glasses in grooves

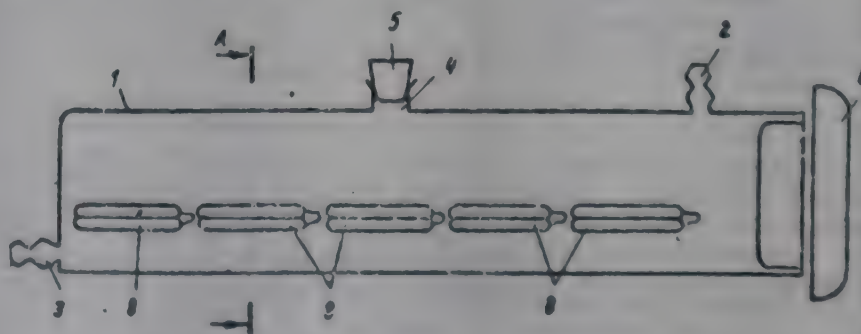
DON MED INST 30.03.79-SU-744243

(30.01.81) C12n-05

30.03.79 as 744243 (89VE)

Prevention of damage to cultivated cells during their extraction from the chamber housing (1) is ensured by a set of cassettes (8) which feature walls with grooves. The latter are for covering glasses, and the opposed walls of the housing have slots for placing the cassettes.

After the placement of the covering glasses in grooves of the cassettes, these are fitted in the slots of the housing. After the sterilisation, the housing is closed by plug (6) and the nutrient is pumped through nipples (2/3). The batch of cells is introduced via inlet (4) followed by closure with plug (5), and after the period required for cells attachment to the covering glasses, the medium with the unattached cells is drained off through nipple (3). Cultivation of cells is ensured by the nutrient feed through nipple (2). Bul.4/30.1.81. (2pp Dwg.No.1)



MOPA = ★ D16 79333 D/43 ★ SU-800-878
Diagnosis of destructive process in urinary tract tissues - by laboratory determination of endogenic phospholipase enzymes activities in blood and urine samples

MOSC PAEDIAT CHILD 06.04.79-SU-749151

B04 S03 (S05) (30.01.81) G01n-33/48

06.04.79 as 749151 (1471VE)

The accuracy of the diagnostic method for the active destruction process in the tissues of the urinary track is improved by determining the activity of endogenic phospholipases A and C in blood and urine the samples.

Blood serum or urine sample is extd. with 6% EtOH and centrifuged. The residue dissolved in distilled water or 0.13% albumin soln. is introduced in the small cavities of egg-agar plate, prepd. in an acetate buffer (pH 5) for the determination of phospholipase A activity or in borate buffer for the determination of the phospholipase C activity. The Petri dishes with the protein-enzyme mixt. are kept at 50 deg. C for 20 hrs. and the results are evaluated from the diameter of the circle formed around the small cavity. The characteristic sign for the phospholipase A is lightening around the cavity and for the phospholipase C darkening of the circle. The phospholipase C is inactivated by 0.1 mM CaCl₂ and heparine soln. The presence of heparin is necessary for the differentiation of the phospholipase A and C activities in their mixts. The activities can also be determined by a modified Grossman method and by a reaction with licetoviline. The modified Grossman method is carried out by dissolving a substrate from egg yolk in borate buffer pH 7.3 with added detergentatriton X-100, Ca²⁺ ions and heparine and equilibrating the mixt. in test tubes at 50 deg. C. The protein-enzyme mixt. is added to the test tubes and the reaction allow to proceed for 10 minutes, then stopped by addition of a 2:1 mixt. of CHCl₃ and MeOH. Ethanolamine and phosphoethanolamine are determined in the aq. phase by high voltage electrophoresis.

The losses of the substrate and the growth of diglycerides are determined in the chloroform phase photocolourimetrically. The amount of phospholipase C is given by the substrate losses in microM in the daily amount of urine and in standard body surface.

Bul4/30.1.81 (2pp)

SMIT/ ★ D16 79446 D/43 ★ US 4292-920
Magnetic transfer device for solid phase immunoassay particles - including spaced magnetic pick up areas to which the particles are attracted in a pre set pattern

SMITH K O 20.12.79-US-105707 (26.04.76-US-680506)

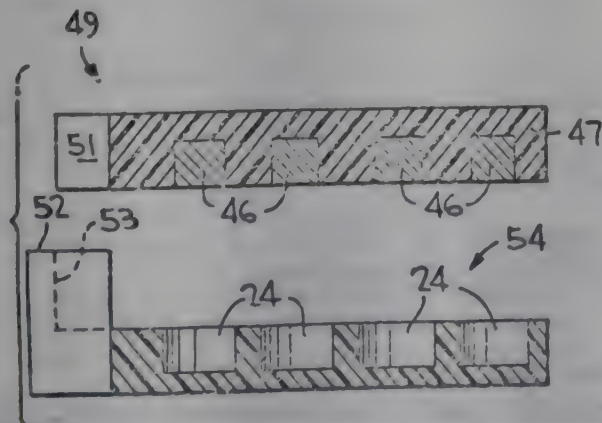
A96 B04 S03 P42 (S05) (06.10.81) B05c-03

20.12.79 as 105107 (525AT)

A device for transporting particles for use in immunoassays comprises a non-magnetic tray (54) having a pattern of spaced receptacles (24) in each of which is located an immunoassay particle comprising a ferrous core and a coating of material which protects the core and which will absorb antigens and antibodies.

The particles are removed from the tray for transport to further processing steps by a carrier (49) comprising magnets (46) spaced in a pattern corresp. to that of the receptacles, the areas between the magnets being of non-magnetic material. In use the carrier is laid over the tray, perhaps guided by the wedge (51) and recess (52,53) arrangement, and then removed with the particles adhering to the magnets in the desired pattern.

The device is of particular use in solid phase radio-immunoassays and ensures accurate transfer between stages. Highly reproducible results without the use of expensive aspiration/ rinse devices. (8pp Dwg. No. 7)



ENGH D16 60922 D/34 = US 4293-333
Recovery of metals from low concn. aq. solns. - by pptn. with live mould fungi

ENGELHARD MINERALS CORP 12.02.80-US-120798

M25 (06.10.81) *GB2068-927 + C22b-11/04 C22b-15 C22b-19 C22b-23

12.02.80 as 120798 (924PW)

Removal of Pt, Rh, Pd, Ru, Au, Re, Ag, Ir, Zn, Al, Fe, Lu, Ni, Co, Mn, Cr, B and/or Sn from aq. medium is effected by contacting the medium with at least one live fungus from the moulds family, for a period sufficient to extract metal from the soln. in water insoluble form.

Pref. fungi are selected from Cladosporium, Pencillium, Trichoderma, Black mycelium and/or Aurabasidium. The extracted metal is recovered from the fungus contg. the metal. Pref. the aq. medium is maintained at pH sufficiently low to minimise pptn. of base metal during extn. and sepn. of precious metal.

The process is esp. useful for the treatment of industrial waste water to effect water purificn. and metal recovery. (7pp)

ENGH D16 60923 D/34 = US 4293-334
Recovery of metals from low concn. aq. solns. - by pptn. with killed mould fungi

ENGELHARD MINERALS CORP 12.02.80-US-120800

M25 (06.10.81) *GB2068-928 + C22b-11/04 C22b-15/12 C22b-21 C22b-23/04

12.02.80 as 120800 (924PW)

Removal of Pt, Rh, Pd, Ru, Au, Re, Ag, Ir, Zn, Al, Fe, Cu, Ni, Co, Mn, Cr, B and/or Sn from aq. medium is effected by contacting the aq. medium with a killed fungus or mixt. of killed fungi from the family of moulds, for a period sufficient to convert the metal from soluble to insoluble form, followed by sepn. of the resulting aq. medium from the killed fungus or fungi contg. the removed metal.

Pref. fungus is Cladosporium, Penicillium or Trichoderma species. The fungus is killed by heating at 85-150 deg.C. Pref. the soln. contains at least one precious metal. The process is esp. useful for the treatment of dilute metals refinery process waste soln. The process is useful in the prodn. of high metal and metal salts, using a simple, relatively low cost method. (6pp)

NORD D16 76051 D/42 = US 4293-545
Vaccine of modified live pasteurilla multocida of haemolytica - prepd. by cultivation in presence of acridinium salt

NORDEN LAB INC 31.03.80-US-135828

B04 C03 (06.10.81) *EP--36-995 A61k-39/02

31.03.80 as 135828 (393PW)

Modified live Pasteurella multioxiida vaccine capable of inducing immunity in bovine, porcine and ovine animal species without serious side effects, comprises vaccinal amts. of modified live P.multocida bacteria strain ATCC No.31609 with an acridinium salt and a carrier.

Pref. the virulent organism is passaged 1-40 times in the presence of acridinium salt. The acridinium salt is pref. acriflavine HCl. Pref. for admin. to bovine and porcine species the vaccine comprises 1 x 10 power 7 - 1 x 10 power 11 CFu/dose modified bacteria. For use also on ovine species the vaccine comprises 1 x 10 power 9 x 1 x 10 power 11 CFu/dose modified bacteria.

Vaccine is safe and effective. (7pp)

SMIK ★ D16 79603 D/43 ★ US 4293-546
Anthra:cycline antibiotic fragilomycin A - prepd. by culturing the new species, Streptosporangium fragilis

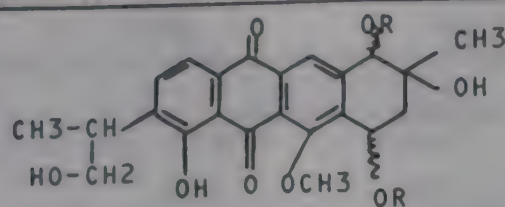
SMITHKLINE CORP 24.07.80-US-171852

B05 (06.10.81) A61k-35

24.07.80 as 171852 (1251AT)

The antibiotic fragilomycin A of formula (I) is new. R are unidentified sugar residues. (I) has the following characteristics: (i) red-orange solid of m.pt. 197-199 deg.C (decomposition); (ii) approx. analysis 55.07% C; 6.92% H; 2.37% N; (iii) empirical formula C₅₄H₈₂N₂O₂₆; (iv) specific optical rotation, sodium D line, +29.5 deg. (c is 0.1 in methanol); (v) soluble in methanol, dichloromethane and DMSO; sparing by soluble in water at pH 6.0 or lower; (vi) field desorption mass spectrum at 20 ma has peaks at m over e ratios 892, 872-871, 824 and 392. The UV, IR and proton magnetic resonance of (I) are reproduced in the specification.

(I) is prod., as part of an antibiotic complex, by culturing Streptosporangium fragilis Shearer Sp nov. ATCC 31519. (I) and the complex of which it is the major component, have antibacterial activity, e.g. for controlling Staph. aureus HH127 infections in humans and animals. (11pp)



OHTA. ★ D16 79652 D/43 ★ US 4293-643
Rotary appts. for shaking culture - with device measuring culture growth over period of time

OHTAKE WORKS CO 31.01.79-JP-009174

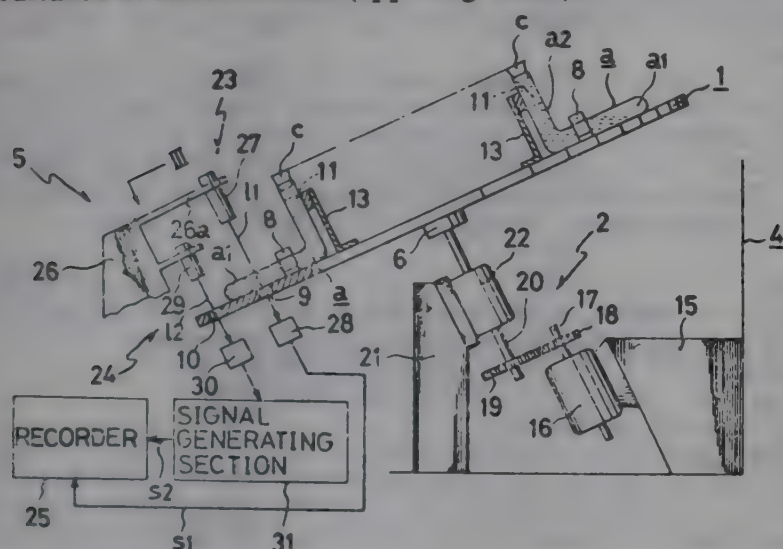
S03 (06.10.81) C12q-01/06

28.01.80 as 116184 (295AT)

A rotary, shaking and culture measuring appts. includes an inclined turntable carrying radially spaced culture-contg. vessels. The vessels are L-shaped and have an upright portion disposed parallel to the turntable axis and lateral portion parallel to the turntable. On rotation the culture is stirred by a combined gravity and centrifugal force.

The turntable includes conc. detection openings, with a conc. measuring device positioned adjacent the turntable and consisting of a light source and detector operable with the openings to produce a signal indicative of the culture concn. A synchronising device is also positioned adjacent the turntable to detect the passage of the culture vessel past a predetermined position and produce a signal for synchronising the concn. measurement as the vessels successively pass the concn. measuring device.

The appts. measures and records, with lapse of time, the degree of growth of various microorganisms as they are shaken and cultured in culture tubes. (6pp Dwg. No. 2)



UPJO ★ D16 79653 D/43 ★ US 4293-644
Androst-4-ene-3,17-dione prodn. - by selective degradation of 17-alkyl-steroid(s) with *Mycobacterium fortuitum* NRRL B-11045

UPJOHN CO 09.10.77-US-849525 (22.10.76-US-735075)

B01 (06.10.81) C12p-33/16

09.10.77 as 849525 (1248HM)

Prepn. of androst-4-ene-3,17-dione (I) comprises cultivation of *Mycobacterium fortuitum* NRRL B-11045 aerobically in aq. medium contg. a steroid (II) having 2-10C in a 17-alkyl side chain.

The NRRL B-11045 can be replaced by mutants obtd. from strains of *Arthrobacter*, *Bacillus*, *Brevibacterium*, *Corynebacterium*, *Microbacterium* and *Mycobacterium*. *M. fortuitum* NRRL B-11045 was obtd. by mutation of ATCC 6842 with nitrosoguanidine. The (II) is typically sitosterol, cholesterol, stigmasterol or campesterol, and it may be pure or in mixts.

Cpds. (II) are selectively degraded to give predominantly (I), which is a known intermediate for the prepn. of testosterone and other steroidal hormones. Small amounts of androsta-1,4-diene-3,17-dione (III) are also formed. (5pp)

UPJO D16 61895 B/34 = US 4293-645
Mutant microorganisms for selectively degrading steroid(s) - to androstane-3,17-dione derivs. by aerobic fermentation, are esp. of *Mycobacterium* genus

UPJOHN CO 09.11.77-US-849526 (01.03.76-US-662563)

B04 (B01) (06.10.81) *FR2408-621 + C12p-33/16

09.11.77 as 849526 (974TM)

Androsta-1,4,diene-3,17-dione / androst-4-ene-3,17-dione mixtures are prepd. by (i) cultivating *Mycobacterium fortuitum* NRRL B-8158 in an aq. nutrient medium under aerobic conditions in the presence of a steroid having a 2-10C 17-alkyl gp. and (ii) recovering the prods.

Prep. the starting material is at least one of sitosterol,

cholesterol, stigmasterol and campesterol. Prods. are intermediates for useful steroids. (5pp)

UPJO D16 15155 C/09 = US 4293-646
Mycobacterium fortuitum mutant strains - useful in selective prepd. of androst-4-ene-3,17-dione

UPJOHN CO 07.08.78-US-931741

B04 (06.10.81) *EP---8-214 C12p-33/16

07.08.78 as 931741 (974AT)

Androst-4-ene-3,17-dione is prepd. by (i) cultivating *Mycobacterium fortuitum* NRRL B-11359 in an aq. nutrient medium under aerobic conditions in the presence of a steroid having a 2-10C 17-alkyl gp. and (ii) recovering the prod.

Pref. the starting steroid is at least one of sitosterol, cholesterol, stigmasterol or campesterol.

Prods. are intermediates for steroids. (5pp)

SEAR ★ D16 79654 D/43 ★ US 4293-648
Enzymatic esterification of alpha-L-aspartyl-L-phenylalanine - for selective prodn. of ester, esp. alkyl ester(s) for sweetening use

SEARLE G D & CO 02.09.80-US-183556 (05.04.79-US-027196)

B05 E14 (D13) (06.10.81) C12p-21/02

02.09.80 as 183556 (+ 12.12.79-US-102807) (1248JB)

Esterification of alpha-L-aspartyl-L-phenylalanine (I) is effected by contact with an alcohol (II) in presence of a proteolytic enzyme with specific esterase activity in aq. (II) medium at pH 4-7. The (II) concn. is sufficiently high to reverse the hydrolytic activity of the enzyme.

The enzyme is pref. a serine alkaline proteinase, esp. subtilisin Carlsberg. Typically the alcohol is MeOH at 10-90% concn. The (I) may be replaced by N-protected- alpha-L-aspartyl-L-phenylalanine, and after esterification the protecting gp. is removed, e.g. a benzyloxycarbonyl gp. is used for protection. The enzyme may be used in free form or in immobilised form in the usual way. Reaction is at 10-50 deg.C.

The COOH gp. of the phenylalanine is selectively alkylated in a single phase system, without formation of diester or aspartyl ester. The alkyl ester of (I) are known sweetening agents. (4pp)

ELIL ★ D16 79655 D/43 ★ US 4293-649
Antibiotic A-33853 prodn. - by cultivation of *Streptomyces* NRRL 12068

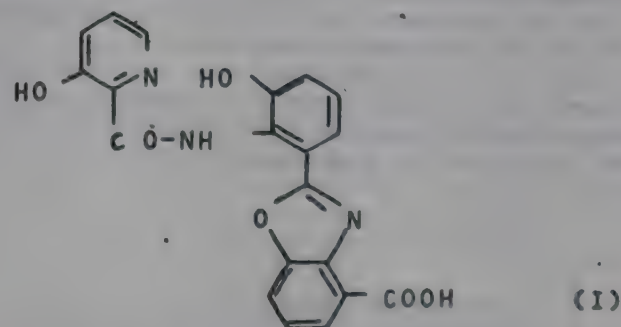
ELILILLY & CO 21.02.80-US-123330

B02 C02 (06.10.81) C12p-17/16

21.02.80 as 123330 (914AS)

Prodn. of antibiotic A-33853 of formula (I) comprises cultivating *Streptomyces* sp. NRRL 12068, or a (I)-producing variant or mutant of it, in a medium contg. assimilable sources of carbon, nitrogen, and inorganic salts under submerged aerobic fermentation conditions.

(I) shows in-vitro activity against (1) pathogenic microorganism such as *Staphylococcus*, *Pasteurella*, *Mycoplasma* and *Streptococcus*, (2) viral organisms including *Vaccinia*, *Polio virus* type III, *Herpes virus* type I, *Ann Arbor influenza virus* type A, *Echo 10*, *Maryland B influenza virus* and *Rhino virus*, (3) the protozoan organism *Eimeria tenella* (which causes coccidiosis) and (4) *Trichomonas vaginalis*. It is also active as a mosquito larvicide. (I) has an LD50 of greater than 300 mg/kg (mouse, i.p.). (9pp)



RHON D16 30048 B/16 = US 4293-65
Antibiotic 37454 RP for control of coccidiosis - prepd. b. cultivation of *Streptomyces gypseus*

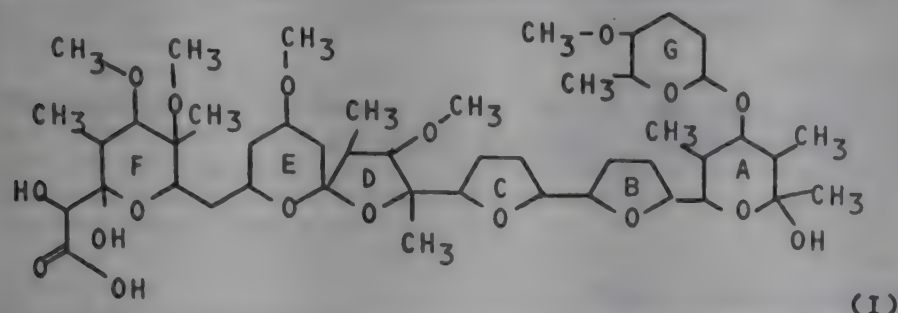
RHONE-POULENC INDUSTRIES 07.10.77-FR-030236

B03 C02 (06.10.81) *DE2843-702 C12n-01/20 C12p-17/18 C12p-01/46

05.10.78 as 948786 (937JB)

Novel anticoccidial substance designated 37454RP has formula (I) in the form of its Na salt is prepd. by cultivating *Streptomyces gypseus* DS 27461 (NRRL 11168) aerobically in culture medium pref. under submerged aerobic conditions at 23-33 deg.C and commencing pH of 6.2-7.8 with the cultured medium aerated at a rate of 0.3-3 litres of air per litre of broth per minute, for 4-8 days.

chloroform, methanol, dimethylformamide, acetone or ethylacetate, sparingly soluble in hexane and virtually insoluble in water. (I) has elemental compsn. of 59.27% C, 8.45% H, 28.32% O and 2.36% Na and empirical formula $C_{48}H_{81}O_{18}Na$ and m.pt. of 198-199.5 deg.C. (12pp)



UPJO ★ D16 79656 D/43 ★ US 4293-651
Antibiotic U-59760 prepn. - by culturing *Saccharo polyspora hirsuta* 367, NRRL-12045

UPJOHN CO 02.10.79-US-081211

B04 F06 (D22 F09) (06.10.81) C12p-01/06

02.10.79 as 081211 (914AS)

Prepn. of antibiotic U-59760 comprises cultivating *Saccharopolyspora hirsuta* strain 367 (NRRL 12045) in an aq. nutrient medium under aerobic conditions, and sepg. U-59760 from the medium. Pref. the medium contains assimilable carbohydrate as carbon source, and also an assimilable nitrogen source.

U-59760 shows activity against *B.subtilis*, *S.aureus*, *Sarcina lutea*, *K. pneumoniae*, *M.avium*, *R. sphaeroides*, *S.pyogenes*, *B.fragilis* and *C.perfringens*. It can be used to disinfect dental and medical equipment and washed and stacked food utensils contaminated with *S. aureus*. It can also be used as a bacteriostatic rinse for laundered clothes, and for impregnating papers and fabrics; and for suppressing the growth of sensitive organisms in plate assays, and other microbiological media. (6pp)

CETU- ★ D16 79657 D/43 ★ US 4293-652
Sequential synthesis of DNA - for prepn. of long double stranded DNA sequences of defined compsn.

CETUS CORP 25.05.79-US-042403

B04 (06.10.81) C12n-15

25.05.79 as 042403 (1248HM)

Prodn. of a cloning vector contg. a synthesised gene of a predetermined compsn. and length comprises the prepn. or selection of a cloning vector having a single restriction enzyme recognition sequence for a restriction enzyme that cuts at a site outside the sequence. A chemically synthesised fragment of double stranded DNA corresp. to a preselected portion of the gene is inserted in the cloning vector at the site cut by the restriction enzyme recognised by the sequence.

The cloned vector is placed in a host and kept under growth conditions for the host to amplify and purify the fragment. Then these synthesis, insertion and amplification steps for preselected portions of the gene immediately adjacent to the previously cloned fragment until a gene is complete.

The procedure permits synthesis of long double-stranded DNA sequences of defined compsn. Synthesised DNA can be inserted at the end of the linker without disturbing the recognition sequence. (7pp)

HORZ/ ★ D16 79658 D/43 ★ US 4293-653
Propagation of feline infectious peritonitis (FIP) virus - by replication in brain of infected suckling rodent to produce vaccine against FIP in animals

HORZINEK M C 12.04.79-US-029591

B04 C03 (06.10.81) C12n-07/08

12.04.79 as 029591 (1248MR)

Propagation of feline infectious peritonitis (FIP) virus comprises inoculating suckling rodents intracerebrally with infectious cat material and allowing the virus to replicate in the brain. Then harvesting the brain material and if desired, inoculating rodents with the brain material for further passages.

The rodents are pref. inoculated at 1-4 days of age. The infectious cat material is suitably a homogenate of infectious liver tissue in phosphate buffered saline. The brain material is harvested 2-10 days after inoculation.

The FIP virus can be successfully propagated easily and economically to give a vaccine for conferring protection against FIP in animals. (5pp)

MASI ★

D16

79659 D/43 ★ US 4293-654

Cell culture micro-carriers bearing charged chemical moieties - for improved cell growth and high cell concns. in virus prodn. etc.

MASSACHUSETTS INST TECH 02.07.79-US-054319 (11.11.76-US-740993)

A96 B04 C03 (06.10.81) C08b-37 C12n-05/02

02.07.79 as 054319 Div ex 4189534 (+ 17.10.77-US-842696) (1248RH)

Cell culture microcarriers having a sufficient degree of substitution with positively charged chemical moieties to provide a charge capacity of 0.1-4.5 meq/g (dry basis) are new.

The microcarriers are used for the growth of anchorage-dependent cells to avoid cell loss and so that spread of cells and growth to confluence on the beads ensures prodn. of high cell concns. The use of the microcarriers is described in US 4189534 (Der. 16459C/09). (9pp)

ABBO ★

D16

79675 D/43 ★ US 4293-689

3-O-demethyl fortimicin B prodn. - by hydrolysis of fortimicin AN with base

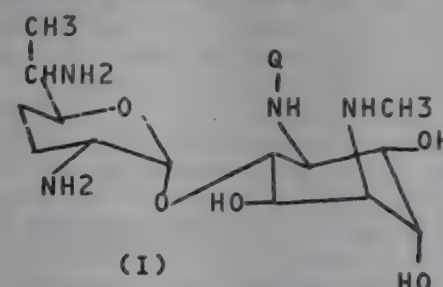
ABBOTT LABORATORIES 24.03.80-US-133177 (29.03.79-US-025250)

B03 (06.10.81) C07h-15/22

24.03.80 as 133177 Div.ex.4219643 (1251HM)

Prodn. of ethylfortimicin B (I) comprises hydrolysing fortimicin AN (II) with base. (In (I) Q is H; in (II) Q is glycyl. This is a Division of 4219648 (65926C) which describes (II) as new. (II) is made by fermenting *Micromonospora olivoasterospora* as described in 65926C. It is hydrolysed to (I) with e.g. barium hydroxide.

(I) is claimed in US 4124756. (3pp)



SOLA- ★

D16

79732 D/43 ★ WP 8102-898

Prodn. of cultures and metabolites - by stimulating growth of microorganism culture in a series of growth zones

SOLARGIZER INT INC 31.03.80-US-136054 (31.03.80-US-136053)

(15.10.81) C12m-01/10 C12p-07/14

31.03.81 as U00416 (1044BZ) (E) US-409956 US3575813 US3923605 US2155134 N(AU BR DE DK GB JP SU) E(AT CH DE GB LU NL SE)

A process for stimulating the growth of a microorganism culture in a series of growth zones and withdrawing metabolites produced by the culture comprises introducing a culture including a inoculum and a liq. nutrient medium into the top of a prodn. unit divided into a vertical series of tray-like growth zones. The culture gravity flows through a drain opening of one zone into a movable segment of the adjacent lower growth zone and the process is repeated until multiplication of the microorganisms in the culture has been obtd.

A portion of the culture is withdrawn from a growth zone and recirculated to a higher tray-like growth zone. Metabolites are withdrawn from tray-like growth zones.

Used for prodn. of a fuel alcohol from a must. The culture can be re-used in the process at least once because of the gentle treatment of the culture, the continuous replenishment of nutrients to the prodn. medium and the withdrawal and recirculation of a portion of the culture before it enters the terminal growth phase. (56pp)

SECH/ ★

D16

79733 D/43 ★ WP 8102-899

Mono-clonal antibody having specificity to interferon-alpha - useful in purification and assay of interferon

SECHER D S 07.11.80-GB-035884 (11.04.80-GB-012096)

B04 S03 (15.10.81) C07g-07 C12n-05 C12n-15 C12p-01 C12r-01/91 G01n-33/54

13.04.81 as G00067 (914AS) (E) 7.Jnl.Ref N(AU BR DK FI GB HU JP NO RO SU US) E(AT CH DE FR LU NL SE)

A monoclonal antibody produced by a hybrid cell line and having specificity to interferon-alpha is new. Pref. the cell hybrid is derived from mouse, rat, human, guinea pig or rabbit tissue; and the antibody is immunoglobulin molecular of the type IgG or IgM and has specificity to human interferon-alpha.

The antibody has high specificity for interferon-alpha (i.e. leukocyte interferon), and hence may be used in the purification of the interferon (e.g. by immuno-adsorption) and for immunoassay of the interferon. Purifications of up to 5000 fold may be obtd. in a single pass through an immuno-adsorption

column; and levels of interferon down to 50 U/ml can easily be assayed. (22pp)

HULE/ ★ D16 D/43 ★ ZA 8005-237
Alcohol still - has boiler feeding steam into stripping column at lower level than fluid entry
HULETT D J L 25.08.80-ZA-005237
(30.07.81) B01d
25.08.80 as 005237 (DH)
Appts. is provided for concentrating an alcohol containing fluid, including, in combination a stripping column means to introduce the fluid into the column, a boiler adapted to feed steam into the

column at a level lower than the fluid entry for countercurrent contact of the steam with the falling fluid, the stripped fluid being circulated through the boiler. There is an outlet from the stripping column to rectification column including condensing means and a take off for the rectified alcohol. (9pp)

See Also

D13 HUH 002668 D13 US 4293307 D13 US 4293575
D17 J8 1041233 D22 J8 1041238

D17: SUGAR; STARCH

MACH- ★ D17 78155 D/43 ★ FR 2477-959
Fixing mould cleaning hammer to cam disc of sugar press - by mounting on element which is easily removed from cam disc in situ

MACHINES CHAMBON 12.03.80-DE-U06715
P71 (18.09.81) B30b-11/02 C13f-03/02
09.03.81 as 004619 (448HM)

System is for fixing a demoulding hammer to the cam disc of a mechanical sugar press which has several mould blocks each furnished with a cam follower finger. The mould blocks and fingers rotate around the cam disc, the fingers passing in turn across the oblique surface of the hammer which is spring loaded to strike the corresp mould block when released.

The hammer is now mounted on an element which is removably fixed to the cam disc pref the element is a segment of the cam disc the elements is pref secured to the cam disc with screws which are approximately radial to the axis of the disc. The element is pref located w.r.t the cam disc by a key engaging grooves on both element and disc. The element pref has an accessible entry to a grease passage for lubricating the hammer axis pivot pin.

Used for cleaning damp sugar from mould cavities of sugar presses. At 150 to 200 blows per minute, the hammer is subject to rapid wear. The new fixing system allows a hammer to be changed in about 2 hours. Previous systems involved considerable dismantling and reassembling which could take 200 to 250 hours. (6pp)

MEZO- ★ D17 D/43 ★ HU T021-014
Adding heated molasses to sugar processing by/product paste - to improve centrifuging
MEZOHEGYESI MEZOGAZ 01.03.79-HU-ME2255
(28.09.81) C13f-01/06 C13j-01

AGEN D17 60604 V/34 = J8 1041-233
Fructose enzymatic production - from glucose and fructose mixt. after calcium(2) glucose isomerase inhibitor removal on cation exchange resins

AGENCY OF IND SCI TECH 05.09.72-JP-088540
E13 (D16) (26.09.81) *J49042-885 + C12p-19/24
05.09.72 as 088540 (DH)

A mixt. of glucose (I) and fructose (II) was treated with a cation exchanger of Ca++ type to separate (I) and (II) and then treated with a cation exchanger of H+ type to remove Ca++ and an inhibitor to glucose isomerase (III). The sepd. (I) soln. was reacted with (III) and (II) was obtd.

In an example, inverted sugar soln. (20 g.) obtd. by hydrolysis of 100 g. cane sugar were fed to a column of Dowex 50-x8 (Ca++) connected with a column of Dowex-50-x8 (H+) and eluted with H2O at 60 degrees; fraction 1,2 and 3 contained (I) 21, 25 and (II) 210, (I) 2083 and (II) 1830 and (I) 125 and (II) 2285 mg. resp. (II) was crystd. from the fraction 3 by concn.

Fraction 2 was concd. and treated with Dowex 50-x8 to separate (II). Fraction 1 was concd. added with 0.005 M MgSO4 and 100 units (III), and reacted at 70 degrees and at pH 6.5. Prodn. of (II) was 1163 mg. after 17.5 hr. reaction, while it was 527 mg. from the fraction 1 without treatment of H+ type resin. (J49042885) (3pp)

TAKA/ D17 76377 W/46 = J8 1041-638
Oligosaccharides prepn. - by UV irradiation under acidic condition of glycosides contg. oligosaccharides

TAKAISHI K 04.10.73-JP-112163
E13 (29.09.81) *J50059-313 + C07h-03/04
04.10.73 as 112163 (JB)

Glycosides contg. oligosaccharides were irradiated with UV light under acidic conditions to give oligosaccharides. For example, 10

UV light to give 1.2 g rutinose. Similarly, amygdalin and apiin were converted to gentiobiose and apiosylglucose, respectively. (J50059313) (2pp)

MOFO= ★ D17 79132 D/43 ★ SU -800-195
Clarification of sugar soln. in sugar mfr. - by sedimentation in presence of wheat or rye bran suspension

MOSC FOOD IND TECHN 29.06.79-SU-782013
(30.01.81) C13d-03

29.06.79 as 782013 (938GW)

Clarification of sugar-contg. soln. in sugar prodn., includes sedimentation in the presence of a flocculating agent contg. starch. The cost of the clarification process is reduced and the sedimentation rate is increased if sugar soln. is treated, before the sedimentation stage, with 0.0005-0.005 wt. % wheat or rye bran in a form of an aq. suspension. The amt. is based on a wt. of soln.

Typically, sugar soln. treated with 10% aq. suspension of bran in amts. of 0.0005 wt. % had sedimentation speed of 2.65cm/min. Bul.4/30.1.81. (2pp)

MOFO= ★ D17 79133 D/43 ★ SU -800-196
Soln. supersaturation coefft. determ. - includes estimation of temp. increase of unsatd. and satd. soln. during vacuum evapn., used in sugar mfr.

MOSC FOOD IND TECHN 16.04.79-SU-755990
(30.01.81) C13f-01/02

16.04.79 as 755990 (938GW)

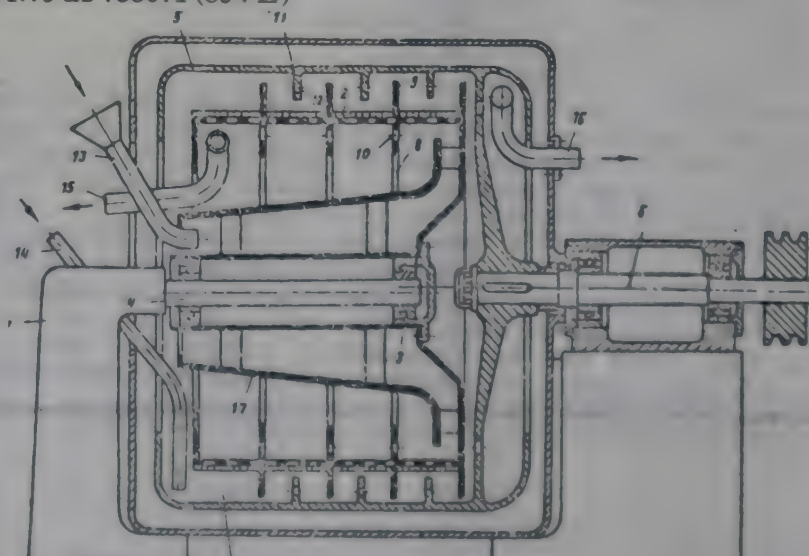
Determination of coefft. of supersaturation of sugar soln. is useful in sugar mfg. etc. industries using e.g. automatic vacuum crystallisers. The coefft. is estimated by measuring the rate of temp. increase of soln. below saturation pt. during its evapn. in vacuo and also the temp. increase of satd. soln. during sugar crystallisation.

The ratio of the rates of temp. increases for given pressures is used to calculate the coefft. of supersaturation of sugar soln. The method can be used for testing solns. at 150-760 mm Hg pressure in 0.8-1.4 supersaturation range and at 60-100% sugar concns. Bul.4/30.1.81. (2pp)

STAR= ★ D17 79134 D/43 ★ SU -800-197
Potato or corn paste starch washing off unit - has rotor with solid cylindrical shell carried by shaft and offset from perforated shell

STARCH PRODUCTS RES 10.04.79-SU-753671
(30.01.81) C13l-01

10.04.79 as 753671 (89VE)



The density of starch washed off from potato or corn paste is increased and water consumption is reduced if the unit has rotor fitted with a solid cylindrical cell (5) supported by drive shaft (6) and is offset from the perforated cylindrical shell (2) held by the bearings (3). The wash water is fed into the revolving shell (5) by tube (13) and the paste moving along the distributor (17) enters the perforated shell (2).

The wash water turned together with the shell (5) imparts rotation to shell (2) through the friction of ribs (9). At the same time, the paste held in shell (2) is moved through ports (10) towards the discharge pipe (15), the movement generated by the draw-off of pulp due to height difference of annular layer of paste between ribs (8). Bul.4/30.1.81. (3pp)

UNVO ★ D17 79509 D/43 ★ US 4293-348
Simulated countercurrent sorption process - employing ion exchange resins with backflushing
 UOP INC 05.11.79-US-091303
 A91 J01 (06.10.81) C13d-03/14
 05.11.79 as 091303 (478KB)

An extract component (I) is sepd. from a feed which also contains a raffinate component (II) in a simulated moving-bed system using a stationary adsorbent (ion exchange resin with greater selectivity for (I) than (II)) as follows: (a) the feed is passed to a column of adsorbent contg. an adsorption zone, purification zone, desorption zone, and backflushing zone (fluid flow in opposite direction to the rest of the column); (b) the feed is fed into the adsorption zone to selectively adsorb (I) while a (II)-contg. stream is withdrawn; (c) a desorbent material is passed into the desorption zone to desorb (I); (d) a stream contg. (I) and desorbent material is withdrawn from the desorbent zone; (e) a backflushing output stream is withdrawn from the back-flushing

zone; and (f) the feed input, raffinate output, desorbent input, extract output, and backflushing output streams are periodically advanced down stream (w.r.t. fluid flow in adsorption zone) to shift the zones through the adsorbent and afford (I) and (II) output streams.

In the simulated moving bed process backflushing of the resin is effected continuously. The process is partic. useful for the sepn. of a saccharide from an aq. mixt. of saccharides. (11pp)

SYND. D17 57882 C/33 = US 4293-412
Plant to purify sugar refinery effluent and produce methane - completely immerses gas collection canopy to reduce fire and explosion hazards

SYND NAT FAB SUCRE 24.01.79-FR-001775
 (D15) (06.10.81) *EP--14-136 C02f-03/28
 22.01.80 as 114426 (006AT)

Appts. for purifying waste water from sugar mfr. comprises an aerobic fermenter-decanter of open inverted truncated-pyramid shape, to which hot sludge is fed, by a pipe passing through a heater, to the tank bottom adjacent a rotary agitator on an upright shaft.

A flexible cover with a central gas outlet extends upwardly from the centre regions of the tank walls, and is connected at the outlet rim to an inverted metal bell with its rim immersed in the sludge. The outlet is connected to a gas evacuation pipe. Clear liq. rises between the rims of the cover and bell, and the tank side walls, for removal. (5pp)

See Also

D16 J5 6116701

D18: SKINS; HIDES; LEATHER; TOBACCO

BRTA D18 60658 T/38 = DS 2210-928
Cigarette filters - formed by bulking and combing synthetic fibre roving

BRIT AMER TOBACCO LTD 12.03.71-GB-006694
 A88 F04 P15 (A94) (15.10.81) *BE-780-529 + A24d-03/02
 07.03.72 as 210928 (39HM)

Filters for tobacco smoke are made of fibrous thermoplastic material, e.g. polypropylene film split into fibres, in a strand consisting of thicker fibres with a longitudinal orientation, and thinner fibres (fibrils) between them with an oblique orientation. This strand is guided along a drum with needles on its circumference in offset rows. This has the effect of severing the oblique fibres and of splitting the thicker longitudinal fibres into further fibrils. Before or after the drum operation, the strand is curled.

Such a strand combines a low packing density with a good filtering efficient and is suitable for use as a tobacco smoke filter. PS (6pp)

FARB D18 29196 W/18 = DS 2348-862
Films and coatings from thermo-sensitised polymer dispersions - made by applicn. to hot substrates or carriers

BAYER AG 27.09.73-DE-348662
 A82 F08 G02 (15.10.81) *DE2348-662 C08j-07/04 C09d-03/48
 D06m-15/16 + C08j-05/18
 27.09.73 as 348662 (260KB)

Substrates and/or intermediated carries are heated to about or above the coagulating point of the thermosensitised polymer dispersions used to coat the substrates by direct or reverse coating. The polymer dispersions are pref. thermosensitised by organopolysiloxanes. The thermosensitised polymer lattices are pref. foamed by heating in air before they are applied to the substrates.

High quality, strongly adhering coatings can be produced economically. A large number of diverse polymers can be applied to a large variety of substrates. PS (5pp)

SCHW. D18 49248 B/27 = EP G002-739
Continuous leather drying press - with back-up rolls around pressure cushion on central roll and perforated carrier belts

SCHWEIZER L CO GMBH 22.12.77-DE-757257
 + P71 Q76 (14.10.81) *DE2757-257 B30b-09/24 C14b-01/34
 F26b-05/14

15.12.78 as 101694 (236AT) (G) DE2052879 DE2220660 DS1030184
 FR-453093 GB-118054 US3699621 US3707749 E(BE DE FR GB IT NL)

A squeezing press (sammier press) for leather and furs

comprises a central pressing roll with an elastic tubular cover forming a pressure cushion, four counter-rolls disposed around this pressing roll, one each and below and one on either side, and a double belt passed between all four of these rolls and the central pressing roll with the fur or leather to be squeezed sandwiched between the double belt. Only the last counter-roll of the four in the direction of conveying is driven.

The double belt and fur pref. enter above one of the side rolls and leave at the top roll.

The arrangement enables sufficient pressure to be exerted for expelling capillary water without damaging the leather or fur. (9pp)

NAGY/ ★ D18 D/43 ★ HU T020-784
Cigarette filter - with filter insert of any desired cross/section in rigid holder

NAGY M 06.12.78-HU-NA1118
 P15 (28.09.81) A24f-13/06

FARB D18 32166 X/18 = J8 1041-751
Coating leather and plastic surfaces - with polyurethane reactive systems contg. a plasticiser to reduce viscosity

BAYER AG 09.10.74-DE-448133
 A82 F08 G02 P42 + P73 (A25) (30.09.81) *DE2448-133 B05d-07/24 C08l-75 + C08j-09/28 D06n-03/14
 09.10.75 as 121442 (HM)

Substrates are coated with a mixture, opt. dispersed in water or contg. water dispersed therein, of a polyisocyanate and cpds. contg. H atoms reactive with respect to isocyanate gps., the polyisocyanate being used in the solvent-free state admixed with 1-100%, calc. on the polyisocyanate of a plasticiser, miscible therewith, comprising a difficultly volatile liq. organic cpd. able to reduce viscosity and being resistant to migration.

Used in coating of leather, split leathers and textile surfaces; also plastics, e.g. polyurethane and PVC, wood, stone, metal and similar surfaces. The coatings are microporous soft flexible and scratch-resistant. (J51063905) (11pp)

LOCA = ★ D18 79135 D/43 ★ SU -800-198
Treatment of raw fur pelts - includes carrying out filling step before pickling step

LOCAL IND RES CONS 24.04.79-SU-759282
 (30.01.81) C14c-01 C14c-11

24.04.79 as 759282 (314VE)
 In the treatment of fur pelts by scraping, soaking, pickling, tanning and filling, a better yield of useable fur is obtd. if the filling step is carried out before the pickling step. Pref. the filling

is carried out after the soaking, using the same bath, at a liquid coefft. of 0.5-0.8.

In a typical process, deerskin is soaked at 15-20 deg. C for 4-6 hrs. at a liquid coefft. of 4-5; scraped and cleaned; and re-soaked at 18-25 deg. C for 6-8 hrs. at a liq. coefft. of 4-5. 2-3 hrs before the end of the second soak, the liq. coefft. of the bath is reduced to 0.5-0.8, and filler compsn. is introduced. After 2-3 hrs. of filling treatment, the bath is then emptied and re-filled with acid pickle liquor. After pickling, the skin is then tanned and finished. Bul.4/30.1.81. (2pp)

LEAT= ★ D18 79136 D/43 ★ SU-800-199
Compsn. for greasing elastic leather - contg. synthetic fat obtd. from fatty acids and polyglycol(s), oil, emulsifier, and oxyethylated fatty acids

LEATHER FOOTWEAR 17.04.79-SU-754155
(30.01.81) C14c-09

17.04.79 as 754155 (314VE)

Compsn. for greasing elastic leather comprises:(in wt. %): synthetic fats (I) 50-60, mineral oil 20-30, sulphonol emulsifier 8-12 and oxyethylated fatty acids the balance. (I) comprises the esterification prod. of 7-25 syntehctic fatty acids and polyglycols. The treated leather has enhanced elasticity and is used typically for footwear.

The compsn. is used pref. as an emulsion at a vat coefft. of 1.0-1.2, the temp. being 60-65 deg. C and the time being 40-60 mins. The take-up is typically 5.0-5.5 wt. % on leather wt. calculated on fats basis. Bul.4/30.1.81. (2pp)

FORR- ★ D18 79414 D/43 ★ US 4292-690
Composite fur pelt mfr. - by sewing together strips cut from slit and stretched pelt to give vertical ribbing

FORREST M INC 21.02.78-US-879059
P21 (06.10.81) A41d-05 C14b-01

21.02.78 as 879059 (135KB)

A composite is made by slitting a pelt with two groups of parallel slits in and on either side of the central area from top to bottom and parallel to the sides, twofurther groups of angular parallel slits at either side extending upwardly and outwardly from the lower end of the first two groups, and fifth and sixth groups outside and parallel to the two further groups and extending into the bottom region of the pelt.

All slits are rectilinear and the pelt is stretched into a rectangular shape, sewn along the slits to give structural stability and sliced lengthwise into equal sized strips. The strips are then sewn side-by-side on base material, pref. leather or suede and made into a garment with continuous fur surface and vertical ribbing. The pelt is pref. of beaver, mink, sable, fisher or rabbit. (6pp)

FORR- ★ D18 79415 D/43 ★ US 4292-691
Composite fur garment - made from pelt strips sewn to material strips to give vertical ribbing effect

FORREST M INC 08.03.79-US-018709 (21.02.78-US-879059)
P21 (06.10.81) A41d-05 C14b-01

08.03.79 as 018709 1358NS)

A garment is made from one or more pelts each slit by parallel longitudinal slits spaced from the sides and angled slits from these to the sides, then stretched to form a rectangular pelt which is sewn to retain structural integrity and sliced into equal sized

strips.

Such strips are sewn side-by-side to base material such that the material is not visible and the resultant composite pelt is cut to form a garment with vertical ribbing. The width of fur strips is pref. 8 mm and these are sewn to material strips 11/32 inch wide to give an overlap. The fur is pref. beaver, mink, sable, fisher or rabbit, and the material is leather or suede. (6pp)

BUTC/ D18 88892 C/50 = US 4292-982
Machine to strip tobacco leaves from their stalk - supports stalk as each leaf is pulled away between nip rollers

BUTCHER L D 01.11.78-US-956667 (28.10.77-US-846664)
X25 P12 P15 (06.10.81) *FR2450-045 + A01d-01

01.11.78 as 956667 (1358JB)

A leaf stripper for tobacco stalks includes horizontal cooperating stripping elements movable to form a horizontal nip, a stalk feed and support to hold a stalk horizontally so that the leaves are engaged by the nip and stripped at an angle to the feed direction.

The stalk feed pref. includes a rotary support table, and the elements may be a pair of collars with conical ends and associated with a guard, or may include at least one endless belt or a stationary platen. The guard pref. includes a pair of leaf guides engaging the ends of respective rollers and of wire flaring outwardly. The stripper can handle delicate leaves without damage and increases efficiency. (11pp)

DAIL D18 81098 B/45 = US 4292-984
Cellulose acetate fibres cigarette filter - comprising fibres aligned at right angles to filter axis and having dissimilar denier values

DAICEL KK 22.04.78-JP-048245

A88 P15 (A11) (06.10.81) *DE2916-062 + A24d-03/02

23.04.79 as 032428 (006AT)

Cigarette smoke filter comprises bundles of cellulose acetate filaments of two more different deniers but with no denier exceeding 4. The filaments run lengthwise but are randomly distributed w.r.t. denier differences.

Pref. the difference in denier sizes is at least 3. Smaller wt. filters have high filtration efficiency without losing stability and hardness. (6pp)

ROHG D18 65497 A/37 = US 4293-647
Dissolving collagen-contg. waste of leather mfr. - by enzymatic hydrolysis with acid proteinase(s) under acid conditions

ROHM GMBH 02.03.77-DE-709035

(D15) (06.10.81) *DE2709-035 + C12p-21/06

28.02.78 as 882616 (974TM)

Collagen-contg. tissue is dissolved to form soluble decomposed prods. of low viscosity. Method consists of enzymatically hydrolysing the tissue by treatment with at least one acid protease at an acid pH and in the presence of 0.01-0.3 mol. urea/litre.

Pref. the acid protease has an optimum activity at pH 1.0-6.0. Pref. it is derived from an Aspergillus, esp. A.oryzae, A.saitoi or A.parasitons. (4pp)

See Also

D13 EP--37644

D21 US 4293543

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

HENK D21 44395 W/27 = DS 2363-871
Hair treatment compsn. - contg. polycondensation prods. of polyamings and epichlorohydrin

HENKEL KG AUF AKTIEN 21.12.73-DE-363871

A96 (15.10.81) *BE-823-562 A61k-07/06

21.12.73 as 363871 (68NS)

Agent for treating and washing hair contains an easily soluble, hardenable polycondensation prod. of a polyamine contg. polyalkylene oxide residues and amino gps. capable of reaction and epichlorohydrin or cpds. contg. more than one epoxide and/or halohydrin gp. The polycondensate is pref. present in an amt. of 0.5-5 wt.% based on the total agent together with anionic surfactants, foam stabilisers, perfumes, etc.

The polycondensate, e.g. prepd. from polyglycol-bis-chlorohydrin ether and dipropylene triamine and then epichlorohydrin, improves the wet combing of hair, its feel and acustatic charge. PS (5pp)

FARB D21 88809 X/48 = DS 2521-280
Gel bases for perfume compsn. - of polyurethane polyures polymer contg. water or an alcohol

BAYER AG 13.05.75-DE-521265

A96 P34 (A25) (15.10.81) *BE-841-735 A61k-07/46 A61l-09/04

13.05.75 as 521265 (260BZ)

Perfume contg. gels contain as carrier a polyurethane/polyures polymer incorporating water and/or alcohols. The gels are pref. produced by reacting usual prepolymers contg. NCO with di- or polyamines or water as chain extenders in water and/or alcohol in presence of perfumes. The prepolymer is derived as usual from polyethers contg. at least 40 wt.% ethylene oxide units.

High quality moulded, perfumed gels can be produced, which do not shrink or run at moderately elevated temps., e.g. 40 deg. C. The gels can be produced by a continuous process. PS (5pp)

HOFF D21 22379 B/12 = DS 2860-825
Cosmetic compsn. having anti-seborrhoea activity - contains amine oxide as solubiliser for pyridoxine tri:palmitate used as active ingredient

HOFFMANN-LA ROCHE AG 14.09.77-CH-011213

E16 (E13) (15.10.81) *EP---1-079 A61k-07/06

28.08.78 as 860825 Based on EPG001079 (47HM)

Antiseborrhoeic cosmetic prepn. contains pyridoxime palmitate (0.2-5.0, esp. 1-2%) as the active component, an amine oxide of formula R1R2R3N (+)O(-) (0.1-10, pref. 0.1-2.0)% as solubiliser, ethanol (up to 50%, pref. up to 20%) and the usual carriers and additives. In the formula, R1 is 16-20C alkyl, and R2 and R3 are each CH2CH2OH or Me. Pref. solubilisers are stearyldimethylamine oxide, cetyldimethylamine oxide, bis(hydroxyethyl)stearinamine oxide, dimethylhexadecylamine oxide and hydrogenated dimethylstearinamine oxide. Prepn. of these compsns. comprises mixing and warming pyridoxime palmitate with the solubiliser, carriers and additives. The prods. are used as an anti-grease facial, scalp and skin lotions shampoos or creams, esp. for the treatment of greasy hair and inhibition of sebaceous gland secretions. (-pp)

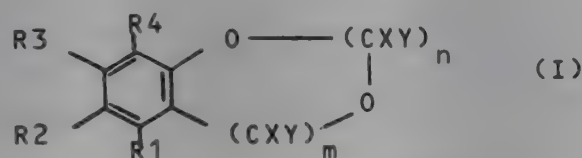
HENK D21 72133 B/40 = DS 2960-453
Hair dyeing compsns. - contain benzodioxole or benzodioxan deriv. coupler and standard developer for oxidn. dyes

HENKEL KG AUF AKTIEN 25.03.78-DE-813076

E13 (15.10.81) *EP---4-366 A61k-07/13 C07d-317 C07d-319

19.03.79 as 960453 Based on EPG005466 (47HM)

Hair tinting compsn. contains benzodioxole or benzodioxane derivs. of formula (I) as oxidative coupling agent, opt. with other coupling agents and/or substantive dyes. In (I), R1 to R4 are each H, 1-4C alkyl, OH or NH2, such that not more than three substituents are not more than two OH's are present, and that at least one OH or NH2 is present, X and Y are each H, 1-4C alkyl or Ph, m is 0 or 1, and n is 1 or 2, but if m is 1, n is 1 also. The proportion of cpds. (I) (or their salts) present in these compsns. is 0.2-5.0 (pref. 1-3) wt.%. (-pp)



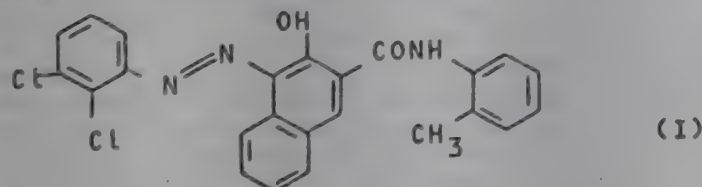
CIBA ★ D21 78126 D/43 ★EP --37-798
Orange paint and printing ink mono:azo pigment - prepd. by coupling diazotised 2,3-di:chloro aniline on 2-hydroxy-3-carboxynaphthalene (2-methyl phenyl)-amide

CIBA GEIGY AG 01.04.80-GB-010884

A97 G02 (A82) (14.10.81) C09b-29/20 C09b-67/46

26.03.81 as 810124 (100AS) (G) 1. Jnl. Ref E(CH DE FR GB IT LI)
New mono-azo pigment of formula (I) is prepd. by coupling diazotised 2,3-dichloroaniline, (II), on 2-hydroxy-3-carboxynaphthalene (2-methylphenyl)-amide (III). (I) can be prepd. in an easily dispersible form. A compsn. (A) is claimed contg. (I) and at least 5 wt.%, w.r.t. (I), of a complex of one or more ethylene oxide-derived nonionic polyether tensides and of a polymeric carboxylic acid having mol. wt. at least 1500.

(I) is orange-coloured and is used in paints and printing inks having high colour-strength and good heat-stability. (15pp)



GRAT/ ★ D21 78136 D/43 ★FR 2477-871
Compsns. contg. antioxidant, organic acid, and surfactant - to prevent hair loss from hormonal causes

GRATADOUR J P C V 14.03.80-FR-005794

E19 (18.09.81) A61k-07/06

14.03.80 as 005794 (520MR)

Liq comprises contg one or more antioxidants (I) one or more di- or polybasic organic acids (II) and one or more surfactants (III) in a predominantly aq medium at pH 3-5.5, which opt contain perfumes, preservatives etc, are new.

The compsn prevent the capture of dihydro testosterone at reactive sites on the scalp and hair follicles and also moderate the action of androgens on the sebaceous glands.

The pref antioxidant (I) is tocopherol, 1-100mg being used per 100 g compsn. The pref organic acid (II) is ascorbic acid, 10mg-1g being used, per 100g compsn. The pref surfactant (III) is cationic, esp quaternary ammonium salts such as lauryl benzyl dimethyl ammonium, cetyl trimethyl ammonium, didecyl

dimethyl ammonium and ammonium lauryl sulphate. Usually 0.1mg-1g (III) is used, per 100g compsn.

Topical application to the scalp prevents hair loss due to seborrhoeic or pellicular homonal causes, especially nascent baldness. (10pp)

FABR ★ D21 78137 D/43 ★FR 2477-872
Natural colourant for use in hair colouring compsns. - prepd. by solvent extracting roots of Borraginaceae family of plants

FABRE P SA 17.03.80-FR-005904

E24 (18.09.81) A61k-07/13

17.03.80 as 005904 (597HM)

Prodn of natural colouring comprises solvent extn of the sub-soil parts of the Borraginaceae (Borage) family selected from Anchusa virginica, Lithospermum tinctorium, Onosma echiodides, Echuim rubrum and Alkanna tinctoria followed by concn of the solvent extract. The colorant is used in cosmetic hair dyeing compsns.

Pref plants are Alkanna tinctoria and Onosma echiodides and the pref pants are the bark of the roots. Solvents are pref 1-3C alcohols, 3-5C ketones, 1-2C halohydrocarbons and mixtures of these or a basic soln. The colourant is pref concentrated by liq/liq extn with a 1-2C halohydrocarbon. For the final concn, the soln is evaporated on a polyol, an animal or vegetable oil, or a surfactant. The compsn also pref contain a salt, esp of Al or Fe.

The colourants are non-toxic, have anti-inflammatory and antibacterial properties, as well as having remarkable dyeing properties. (9pp)

FABR ★ D21 78138 D/43 ★FR 2477-873
5,6-Di:aryl 1,2,4-triazine cpds. used as solar filters - prepd. from di:aryl di:ketone(s) and semicarbazide cpds.

FABRE P SA 17.03.80-FR-005905

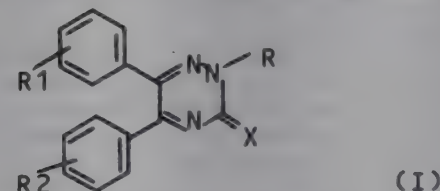
E13 P81 (18.09.81) A61k-07/40 C07d-253/06 G02b-05/22

17.03.80 as 005905 (597HM)

Solar filter comprises at least 1 diaryl triazine of formula (I). In (I) R is H, or an alkyl, aryl, or aralkyl radical opt substd by OH or hal; R1 and R2 are each H, hal, alkyl, alkoxy or dialkylamino; and X is O or S, and tautomers thereof. The cpds are used in cosmetic compsns.

The cpds in which R is H and R is methyl and X is S are prepd from the appropriate diaryl alpha diketones, and semicarbazide, thiosemicarbazide or N-methyl-thiosemicarbazide. The cpds in which R is above except H and X is O are prepd from the cpds (I) in which R is H and a cpd R-hal. Another method for the prepn of cpds (I) in which X is S and R is other than S is by reacting the corresp cpds in which X is O with P2S5.

Used in protective creams etc, the cpds are water insoluble and stable to light and have a U.V absorption range of 2000- 3,100 deg.A. (21pp)



CARS D21 20330 B/11 = GB 1600-807
Setting hair using guanidine hydroxide as active agent - for waving, perming, setting and styling

CARSAN PRODUCTS CO 09.06.77-US-805149

E16 + P24 (21.10.81) *FR2393-572 A61k-07/09 C07c-129

19.05.78 as 020877 (964TM)

Hair is waved by deforming the hair upon a curler, contacting with aq. compsn. contg. guanidin hydroxide, and removing the compsn. from the hair. Pref. the compsn. has a pH of at least 11.8 (12.5-13.5) and is applied for 5-45 (10-25) minutes.

The aq. compsn. is formed by reacting in aq. medium water-soluble inorganic hydroxide with water soluble guanidine salts the anion of which forms water-insol. salt with the cation of the hydroxide. Pref. the hydroxide is calcium hydroxide and the salt is guanidine carbonate.

The compsn. provides high hair strength retention and reduced scalp irritation. (12pp)

FARB D21 87799 A/49 = GB 1600-873
Two/part dental filling paste compsn. - contains synthetic resin binder pref. bisphenol/A deriv. and UV absorbing or diffracting fillers

BAYER AG 25.06.77-DE-728764

A96 + P32 (A14) (21.10.81) *BE-867-576 C08k-03/22 + A61c-05 C08j-05 C08i-33/04

17.05.78 as 020125 (945TM)

Formulated dental filling material comprises a polymerisable organic plastics material contg. inorganic fillers. The material comprises at least 2 pastes, each free of solvent and comprising a monomer. Each paste contains different inorganic fillers with

different chemical constituents, one phase (I) contains fillers with a higher proportion of elements with atomic number of 26 or more than does the other paste (II). (II) contains peroxidic initiator and (I) contains hardening accelerator.

The pastes combine to produce a homogeneous dental filling whose X-ray opacity can be controlled and made high. The material is inert towards dental tissue and surrounding mucous membranes and has good mechanical strength. (9pp)

UNIL ★ D21 78281 D/43 ★ GB 2073-768
Detergent bar contg. halite ion source - for bleaching textiles and for skin treatment in conjunction with ultraviolet irradiation

UNILEVER NV 09.04.81-GB-011147 (11.04.80-GB-012044)

E37 (D25) (21.10.81) C11d-03/04

09.04.81 as 011147 (955MR)

Detergent bars contain at least 10 wt.% soap or anionic, cationic, zwitterionic, semipolar, amphoteric and/or nonionic surfactants, at least 0.1 wt.% of alkali (ne earth) or (subst) ammonium chlorite or bromite to provide halite ions in soln, less than 20 wt.% water, and opt. to 50 wt.% inert filler. An aq. soln. of the compsn. should have a pH of at least 6.

Textiles etc. are bleached when exposed to UV radiation while in contact with a soln. of the compsn. The bars can also be used on the skin, in combination with UV radiation, to give what is described e.g. as a refreshing effect. (6pp)

FERR- ★ D21 D/43 ★ HU T020-800
Hydrating and skin metabolism promoting cosmetic compsn. - contg. tokay wine and essence as active constituents

FERROKEMIA IPARISZ (POLI-POLI-) 20.07.78-HU-VA1527

(28.09.81) A61k-07/02

CSEH/ ★ D21 D/43 ★ HU T021-195
Mouth rinse for gum disorders - comprises ascorbic acid, menthol and aq. alcoholic extract of herb tea

CSEH K 27.11.79-HU-CE1223

B05 (28.09.81) A61k-31/37 A61k-35/78

KANE- ★ D21 78644 D/43 ★ J5 6115-707
Cosmetic compsn. contg. peptide - has skin-protection effect

KANEBO KESHOHIN KK (MITU) 15.02.80-JP-018155

E19 (11.09.81) A61k-07

15.02.80 as 018155 (42AS)

Cosmetic (I) contg. a peptide of formula

A-Pro-B-C-D-E (II)

is new. A is H, benzoyl, l-adamantantyl carbonyl or dansyl; pro is L-proline; B is L-leucine, L-phenyl alanine, L-methionine, L-cystine, L-glutaminic acid, L-tryptophan or L-tyrosine; C is glycine, sarcosine or proline; D is L-proline or pyrrolidine; E is hydroxy, lower alkoxy, aralkyloxy or amino; and when D is pyrrolidine, E is not present.

(I) has a good skin-protecting effect, does not stimulate the skin, and is used as lotion, cream, powder etc. Pref. (II) is produced by condensn. reaction between aminoacids and/or peptides after protection of the amino and/or carboxyl gps. that are not used for the reaction. (6pp)

KANE- ★ D21 78645 D/43 ★ J5 6115-708
Skin-protecting cosmetic - contg. peptide produced by condnsn. of aminoacid s, compsn. may also contain e.g. alcohol or fatty acid

KANEBO KESHOHIN KK (MITU) 15.02.80-JP-018156

E19 (11.09.81) A61k-07

15.02.80 as 018156 (42AT)

Cosmetic (I) contains a peptide (II) of formula A-B-C-D-E-F-OH, where A is H, benzoyl, acetyl, formyl, tosyl or phthaloyl; B is glycine or L-proline; C is L-proline; D is L-phenyl alanine, L-glutamic acid, L-isoleucine, L-leucine, L-valine, L-lysine or glycine; E is glycine or phenyl alanine and F is L-proline.

(II) is produced by condensn. of amino acids and/or peptides after protection of the amino and/or carboxyl that are not used for the reaction. Pref. (II) comprises compsn. where A is H, benzoyl, acetyl, formyl, tosyl or phthaloyl; B is glycine residue; C is L-proline; D is L-phenyl alanine, L-glutamic acid or L-leucine; E is glycine and F is L-proline. The content of (II) in (I) should be 0.001-1wt.%. For prepn. of liq. (I), (II) is dissolved in a solvent e.g. alcohol or fatty acid.

(I) has good skin-protecting effect. (I) does not stimulate skin, and may be used as lotion, cream, powder, etc. (6pp)

DIAS- ★ D21 78646 D/43 ★ J5 6115-710
Nail enamel which can be peeled off - obtd. by mixing pigment and pptn. preventing agent with viscous polymer that forms an elastic film

DIA SEIYAKU KK 15.02.80-JP-018168

A96 G02 (11.09.81) A61k-07/04

15.02.80 as 018168 (42RH)

A nail enamel (I) is claimed which is prepd. by mixing pigment

forms an elastic film, is new.

As examples of (II), synthetic rubber, acryl resin, polyurethane resin, low-density polyethylene resin, and polyisobutylene resin, e.g. (styrene-butadiene rubber), are listed.

In order to remove painted (I), (I)-removing liq. has been used. The (I)-removing liquid roughen nails and fingerskin because it is usually composed of organic solvents. Recently adhesive films or plastics having a nail enamel layer on one of its surfaces have been developed. This can be peeled off without use of (I)-removing liq., but it is troublesome to cut the film adjusting the shape to each nail. The present (I) is painted on nails and then can be peeled off as occasion demands. (2pp)

KURS ★ D21 78751 D/43 ★ J5 6116-46
Polymeric agent for removing tattoo marks on skin - comprise PVA-maleic anhydride or acrylic acid copolymer, polysaccharide-acrylic acid or acrylonitrile grafted polymer, or bridged sodium a

KURARAY KK (KURA-) 14.02.80-JP-017676

A96 P34 (12.09.81) A611-15/* A61n-05/06

14.02.80 as 017676 (117)

A tattoo marks removing aid consists of a polymer having a water absorbability of 10-500 times as heavy as its own weight and capable of forming hydro gel when being applied on wound surface (or tattoo-marked portion) of the skin. The polymer, e.g., a PVA deriv. obtd. from reaction of PVA with a cyclic acid anhydride, e.g., maleic anhydride, to introduce carboxyl gps into side chains and at the same time to introduce bridged bonds an acrylic acid-vinyl alcohol copolymer; a polysaccharide acrylic acid or acrylonitrile grafted polymer; or a bridge sodium polyacrylate.

The use of the polymer can completely remove the dyes or tattoo marks from the skin and at the same time to cleanly heal the wound surface of the skin, partic. when applied on the tattoo marked portion already subjected to laser irradiation treatment. (3pp)

SOYU= ★ D21 78995 D/43 ★ SU-799-78
Cosmetic skin cream compsn. - contg. wax emulsion, glycerol, spermaceti, lanolin, alcohol, herb extracts, stearic acid, triethanolamine and water

SOYUZBYTKHIM PERFUM (ORTO=) 28.04.79-SU-762434

(30.01.81) A61k-07

28.04.79 as 762434 (938GW)

Cosmetic skin cream compsn. of improved biological activity and storage stability contains (in wt. %): emulsified waxes 2-6, glycerol 2-3; spermaceti 2-3; lanolin 2-3; ethyl alcohol 2-4; camomile extract 3-5; cummin or anis extract 4-6; dill or fennel extract 2.5-4; stearic acid 2-4; triethanol-amine 0.5-1.5 and water to 100.

The oil extract of herbs gives skin cream with natural herbal aroma and improves its biological activity. Bul.4/30.1.81. (2pp)

ERAP D21 29321 D/17 = US 4293-54
Dyeing keratin substances, e.g. skin, nails, hair, fur - with compsns. contg. ketone or aldehyde dye and sulphony-aminoacid SOC NAT ELF AQUITAINE 26.09.80-FR-020720 (03.10.79-FR-024627)

E16 (D18) (06.10.81) *DE3037-497 A61k-07/42

02.10.80 as 193397 (965PW)

Colouration of keratin contg. substance or material (I) comprise using a colouration agent (II) having a ketone or aldehyde function, favouring the development of colour in (I). An amino acid (III) is applied to (I) before, during or after application of (II). (III) contains a sulphony gp. Pref. (III) is methionine-sulphoxide or the mono or di-sulphoxide of cystine. Pref. 1-10 (1) moles (II) are applied per 1-10 (1) moles (III), the resultant pH of the mixt being 7-8. Pref. (I) is skin, hair, nails, fur, feathers, horns or shells.

The process gives uniform colouration, which resists washing, and develops more rapidly than the prior art, and can be used cosmetically for colouring human hair or nails. (-pp)

FINE- ★ D21 79602 D/43 ★ US 4293-54
Sun tan oil compsn. - including benzoate ester(s) carrying sun screening agent to give non-greasy feel

FINETEX INC 06.12.79-US-100917 (07.03.79-US-018250)

E14 (06.10.81) A61k-07/44

06.12.79 as 100917 (295KB)

A sunscreening compsn. contains a sunscreening agent and liquid vehicle either in which the agent is dissolved, or is emulsified with it. The vehicle comprises esters of benzoic acid or a mixture of 12-15C linear prim. alcohols. The alcohol mix comprises 23-31 wt.% 12C alcohol, 32-44 wt.% 13C alcohol, 17-2 wt.% 14C alcohol and 12-18 wt.% 15C alcohol.

The compsn. is for use on the skin as a sun tan oil. The use of the

benzoate esters gives the composition a non-greasy satiny feel. (6pp)

See Also

D13 J8 1041667 D23 FR 2478084

D22: BANDAGES; DRESSINGS

LICH/ ★ D22 77955 D/43 ★ DE 3013-913
Disposable nappy - has a bottom plastics layer an absorbent
intermediate layer and a top perforated layer together with cover

LICHTMANNEGGER E 11.04.80-DE-013913

P21 (15.10.81) A41d-13/02

11.04.80 as 013913 (318DH)

Nappy consists of an underneath plastics layer, an intermediate absorbent layer, and at least one top wadding layer for retaining non-liquid excrement. The top layer is joined to the main part of the nappy along the two opposite lengthwise sides.

The top layer can be sepd. easily from the rest of the nappy. The layer of wadding has perforations near one edge, or all four edges. The upper surface has a covering strip and a case. (10pp)

GLAS/ ★ D22 77988 D/43 ★ DE 3029-770
Sanitary tampon with deep central hollow core - and slots on
Introductory end

GLASSMAN J A 09.04.80-US-138501

P32 (15.10.81) A61f-13/20

06.08.80 as 029770 (39AT)

A sanitary tampon consists of moisture absorbing material which has been shaped to an elongated element with a flat introductory end and a rounded opposite end, carrying an extraction cord. At the introductory end the tampon has a hollow core which continues down to near the other end.

The tampon is made of cotton or other high-absorptivity non-woven material, pref. two separate flat square pads, with an impermeable layer between them. The pads are folded over and compressed to the elongated shape. Such a tampon ensures a max. absorption capacity for body fluids and a longer useful period. Spill-overs and soak-throughs are now eliminated. (16pp)

SNAM D22 68925 A/38 = DS 2812-174
Biocompatible fibres contg. anticoagulant or antithrombotic -
which may also contain active materials, such and antibodies,
enzymes, or adsorbing ion exchangers

SNAMPROGETTI SPA 22.03.77-IT-021482

A96 B07 F01 P34 + P32 (B04) (15.10.81) *BE-865-192 A61f-01
A61k-09/70 A61l-15/03 A61l-17

20.03.78 as 812174 (47HM)

Polymer material which is biologically compatible and does not coagulate blood comprises (a) nontoxic polymer; (b) 4,5-diphenyl-2-bis- (2-hydroxyethyl)- amino-oxazole; 4,8-dipiperidino -2,6-diethanol-amino- pyrimido-(5,4)-pyrimidine; and/or dicumarol; and opt. (c) antibodies, antigens, antisera, chelatable enzymes, adsorbent ion exchange resins and/or other biologically active substances. Prepn. of these materials comprises dispersion of one or more additives (b) and (c) with a polymer soln., followed by coagulation (e.g. wet spinning) or evapn. of solvent.

The prods. are useful in surgery for implanted endoprosthesis, binding tissues and covering wounds, or as dialysis materials. PS (5pp)

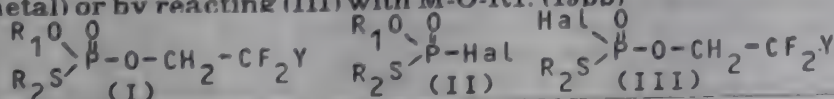
NITN D22 05746 C/04 = EP G007-020
O-Poly(haloalkyl)-O,S-di(alkyl) phosphono:thiolate derivs. - useful
as insecticides, acaricides and nematocides

NIHON TOKUSHU NOYAK 05.07.78-JP-080934

C01 (14.10.81) *EP---7-020 A01n-57/12 C07f-09/16

20.06.79 as 102038 (922BZ) (G) DD-107581 DE2630561 FR2359846
1.Jnl.Ref E(BE CH DE FR GB IT NL)

Novel insecticidal, acaricidal and nematocidal organic phosphoric acid esters are of formula (I): (where each of R₁ and R₂ are 1-4C alkyl and Y is 1-4C fluoroalkyl). They may be prepared either by reacting (II): (where hal is halogen) with a haloalcohol of formula M-O-CH₂-CF₂Y (where M is H or an alkali metal) or by reacting (III) with M-O-R₁. (19pp)



BADI **D22** **73983 D/41 = EP --37-468**
Fungicides contg. 1,2,4-triazole deriva. - including new 1,2-
di:aryl-1-triazolyl-8-butanone cpds., used e.g. as wood
preservative and additives for paint and PVC

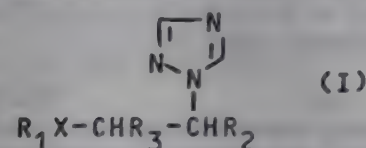
BASF AG 24.03.80-DE-011258

A60 C02 E13 (14.10.81) *DE3011-258 A01n-43/64 C07d-249/08
+ A01n-47/20

10.03.81 as 101742 (367NS) (G) No-Citns. E(AT BE CH DE FR GB
IT LI NL SE)

New fungicidal compsns. contain 1-(CHR2-CHR3-XR1)-1,2,4-triazoles of formula (I) or their salts or metal complexes (where R1 and R2 are 1-6C alkyl, naphthyl, or phenyl opt. substd. by F, Cl, Br, 1-4C alkyl or 1-4C alkoxy; R3 is 1-4C alkyl, or a benzyl or phenyl gp. opt. substd. by F, Cl, Br or 1-4C alkyl; X is CO or CHOR4; R4 is H, 1-4C alkyl, 2-4C alkenyl, opt. Cl- or Br-subst. benzyl, COR5 or CONHR5; R5 is 1-4C alkyl, or phenyl opt. substd. by Cl, Br or 1-4C alkyl). Also claimed are (I; R1 is Me, R2 is R3 is Ph, X is CO) and (I; R1 is Me, R2 is Ph, R3 is 4-chlorophenyl, X is CO).HCl.

(I) have high activity against a wide range of phytopathogenic fungi, esp. Ascomycetes and Basidiomycetes (e.g. *Erysiphe graminis*), and good plant compatibility. Their activity is systemic in some cases, and they can be used as foliar or soil fungicides, seed dressings, wood preservatives, additives for paints and PVC, etc. (24pp)



MINN ★ D22 78080 D/43 ★EP --37-677
Orthodontic bracket adhesive and abrasive for removal - both
compsns. contg. inorganic fillers of controllers Mohs' hardness

MINNESOTA MINING CO 25.07.80-US-172218 (07.04.80-US-137631)

(14.10.81) A61k-06

24.03.81 as 301258 (478BZ) (E) No-citns. E(CH DE FR GB IT LI)

Orthodontic brackets are applied to tooth surfaces using a polymerisable compsn., and are removed (together with the adhesive compsn.) using a solid abrasive tool. The polymerisable adhesive compsn. contains a finely divided inorganic material (I) (non-toxic, insol. in mouth fluids, and with Mohs hardness less than 4.5) mixed with a polymerisable resin (III). The solid abrasive tool consists of another inorganic material (II) which is non-toxic, and which has a Mohs hardness greater than that of (I) but less than 5. The orthodontic bracket adhesive system has high strength, good workability and rapid set time, but is readily and rapidly removed without excessive damage to tooth enamel. In addn., the abrasive is very effective in general dental work. (28pp)

COMS ★ D22 78112 D/43 ★ EP --37-759
Cement compsn. for bonding bone prosthesis - comprising epoxy resin pref. polybutadiene with terminal hydroxy gp. as flexibilising resin, hardener and inorganic filler

COMMISS ENERGIE ATOMIQUE 24.03.80-FR-006479

A96 G03 P32 P34 (A21) (14.10.81) A61f-01 A61k-06 A61l-02/08
C08l-63/02 C09l-03/16

18.03.81 as 400421 (950RH) (F) No-Citns. E(CH DE GB IT LI SE)

A cement compsn. for securing bone prosthesis is obtd. by hardening a mixt. of (a) a bisphenol A glycidyl ether diepoxide resin having a high reactivity and very low toxicity, (b) a reactive and non-toxic resin imparting flexibility and contg. reactive functional gps. from amine, COOH, OH and epoxy gps., (c) an inorganic powdery filler, (d) a hardener for the epoxy resin and (e) a hardening accelerator. The compsn. comprises 100 pts. (wt.) of (a) + (b), 50-80 pts. (c), 10-20 pts. (d) and 5-10 pts. (e).

The compsn. is partic.. for securing prosthesis to the hips. It has the consistency of a mastic which facilitates handling, improved flexibility, low shrinkage, does not generate too much heat on hardening, can be hardened at below 55 deg. C, is non toxic, hardens rapidly, is compatible with biological medium and has stable mechanical props. The components can be easily sterilised without degradation and can be stored separately for long periods. (13pp)

BIOT. ★ D22 78122 D/43 ★ EP --37-785
Sound absorbent inert for an artificial anus - to suppress noise from uncontrolled postoperative wind

LABS BIOTROL SA 04.04.80-FR-007774

A96 P32 (14.10.81) A61f-05/44

03.04.81 as 400548 (515NS) (F) US2931353 DS2919467 FR2417291 FR2410999 FR2337545 GB2014857 E(AT BE CH DE GB IT LI LU NL SE)

Device comprises a hollow envelope made of or coated with material which will not adhere to the tract walls and perforated to allow gas or liquid to pass through a block of open cell foam contained in the envelope to absorb noise. To assist social rehabilitation of persons following neterostomy. The envelope can be extracted using an external cap linked by a rigid or semi-rigid stalk and secured by an external adhesive patch.

Pref. the acoustic plug is of expanded rubber or polyurethane foam. Pref. the envelope is an elastic gel prepd. from an aqueous blend of gelatine, glycerine. The plug may be associated with a flexible bag for collecting draining from an abdominal operation which also acts as a gastric vent. Applicable to a greater proportion of such applications than prior art plugs involving electromagnetic relief valves. (17pp)

AABE- D22 48338 B/26 = GB 1600-768
Absorbent underlay sheet impermeable to discharged body fluids - used esp. in hospitals for babies

KONINIC AABE FAB BV 09.12.77-NL-013694

A96 F07 P27 P73 (A18) (21.10.81) *NL7713-694 B32b-27/12 + B32b-05/06

31.05.78 as 025652 (1376KB)

Underlay consists of binder-free needle felt having both surfaces formed by fluid absorbent fibres and parallel spaced threads internally of the felt between the surfaces. An impermeable backing layer is adhered to one face.

All the materials are pref. thermally and chemically resistant. The backing is pref. of polyethylene terephthalate. Underlay can be used in hospital beds. (4pp)

BENE D22 68978 A/39 = GB 1600-844
Composite absorbent sheet for hygienic and medical uses - e.g. wound dressing, has skin contacting surface which always feels dry

BENECKE J H GMBH 20.05.77-DE-722860

A87 P34 P73 + P32 (21.10.81) *BE-867-265 + B32b-05/26

26.04.78 as 016397 (963)

Moisture-absorbent composite flat structure for medical and hygiene purposes comprises at least 2 layers of differing moisture absorption characteristics, one layer being a cover comprising non-woven, synthetic, bonding agent-free fibres and another of the layers being a storage layer. The cover layer, in use, lies between the storage layer and the liq. to be absorbed, the storage layer having a higher absorption capacity than the cover.

The cover has a moisture absorption capacity such that after adaption to normal climate (according to DIN 53802) it has a moisture content of less than 6% relative to its dry wt. (according to DIN 53800). The fibres of (at least) the part of the cover between liq. and storage layer are formed of water-repellent fibres treated with a wetting agent.

Wetting agent for cover is pref. present in amts. of 0.1-10 mg/g of fibre wt. Pref. wetting agent comprises reaction prod. of castor oil and ethylene oxide reacted in mol ratio of 1:40.

Arrangement ensures rapid removal of body secretions e.g. ensuring the wound exudations are taken away from skin to ensure drying of damaged skin or wound. (5pp)

TAKE D22 62114 A/35 = GB 1601-028
Broad spectrum antibacterial cephalosporin cpds. - effective against Gram negative bacteria and used to disinfect surgical instruments

TAKEDA YAKUHIN KOGY 17.02.77-JP-016995

B02 (21.10.81) *DE2805-590 A61k-31/54 C07d-501/20

17.02.78 as 006363 (937TM)

7-(2-(2-Amino thiazol-4-yl)-1 (syn) methoxy imino acetamide) cephem carboxylic acid is a novel cpd. of formula (I) where R1NH is opt. protected amino gp; COOR2 is opt. esterified carboxyl gp; X is O,S or opt. substd. imino gp; B is H or hydroxyl, amino, thiol or opt. substd. hydrocarbon gp.

Pref. R2 is 1-5 (alkyl, aralkyl, alkanoyloxymethyl, di- or tri-alkylsilyl, alkoxysilyl, aryl, alkoxyalkyl, alkenyl, haloalkyl, alkylsulphonyl, alkyl, acylmethyl, aralkyloxymethyl, alkylthiomethyl or alpha-acyloxy alpha-substd. CH3 gp.



(I) is low in toxicity, beta-lactamase resistant, has broad spectrum antimicrobial activity and is used as disinfectant or therapeutic agent. (I) is used at dosage of 0.5-80 mg to treat infectious diseases. (16pp)

KIMB ★ D22 78235 D/43 ★ GB 2073-597
Sanitary napkin with impermeable baffle below pad - and with one thermoplastic layer fused to pad and cover layer

KIMBERLY CLARK CORP 11.04.80-US-139580

P32 (21.10.81) A61f-13/16

13.04.81 as 011694 (1358DH)

A napkin has a permeable body contact layer, an adsorbent pad and an impermeable baffle under the pad and with at least two layers, one thermoplastic and fusible at below 180 deg.C., and the other non-fusible at above this temp. The baffle is pref. fused to the contact layer and to the pad which includes fusible thermoplastics.

The contact layer pref. overwraps the baffle and has an adhesive strip with a release liner for attachment to an undergarment. When not overwrapped, the baffle pref. has a friction surface for contacting an undergarment. Fusing is pref. by embossing in a spaced pattern over the napkin surface and occupying not more than 10% of surface area. (7pp)

STKA- ★ D22 78581 D/43 ★ J5 6115-377
Volatile dispersant comprises thermoplastic elastomer - partly with large intermolecular bonding power and partly without, and also volatile chemical, e.g. perfume, insecticide etc.

STKAGAKU KOGYO KK 16.02.80-JP-018021

A96 C03 P34 (A97) (10.09.81) A01n-25/10 A61k-07/46 A61l-09/00 C09k-03

16.02.80 as 018021 (136NS)

Solid volatilising matter is prepd. by adding (1) one or more volatile chemicals e.g. perfume, antiseptics, insecticide, steriliser, antimould agent and opt. (2) diluent to (3) thermoplastic elastomer (rubber) comprising the polymer molecule contg. (a) polymer part having large intermolecular bonding power and (b) polymer part having small intermolecular bonding power in the block form.

The thermoplastic elastomer has excellent miscibility retention and shape-maintenance. (b) absorbs easily (1) and (2) at room temp. (b) comprises polybutadiene, polyisoprene, polyether, ethylene-propylene polymer. (a) contributes to maintenance of the initial shape. (a) comprises, e.g. polystyrene, polyester, polyurethane, polypropylene, (2) includes, e.g. isoparaffin hydrocarbon, limonene. (5pp)

MITQ ★ D22 78616 D/43 ★ J5 6115-61
Removing sulphide(s), sulphur oxide(s) and organic cpds. from air - by treating with UV rays and passing to active carbon filter contg. bromide ions

MITSUBISHI ELECTRIC CORP 20.02.80-JP-020134

J01 (10.09.81) B01d-53/02

20.02.80 as 020134 (26PW)

Appts. is claimed for cleaning dirty air containing sulphides such as methyl sulphide, methyl di-sulphide, etc. in addition to sulphur oxides and other organic cpds. such as acetone. The object is to improve the adsorptive efficiency of dirty substances contained in air contaminated with exhaust gas from engine-drive vehicles.

An irradiator for irradiating the UV ray to the air is followed by an active C filter charged with active carbon, to which a bromide is added to be reacted with ozone produced in the air excited by irradiation with the UV ray, resulting in prodn. of bromide ion reactive with the sulphides which are difficult to remove from the air. (3pp)

TOKE ★ D22 78617 D/43 ★ J5 6115-61
Purificn. of malodorous gas contg. hydrogen sulphide - by treating with alkali active carbon suspension, washing with oxidising contg. soln. and neutral active carbon suspension

TOKYO SHIBAURA ELECLTD 16.02.80-JP-018164

J01 (10.09.81) B01d-53/34

16.02.80 as 018164 (55AT)

Process for purifying malodorous gas contg. hydrogen sulphide comprises treating it with an alkali active carbon suspension (the pH of which is about 10) then washing with a soln. contg. oxidising agent, then washing with a neutral active carbon suspension (the pH of which is pH 6-8). The waste liq. from the said neutral active carbon suspension treatment process is then added to the alkali active carbon suspension.

In this process, hydrogen sulphide, methyl mercaptane, methyl sulphide, ammonia trimethylamine etc. are mainly removed from reducing malodorous gas contg. the given cpds. In the process, with the min. amt. of the chemical reagents, high removal efficiency is obtd. (7pp)

TOKE ★ D22 78618 D/43 ★ J5 6115-618
 Cleaning malodorous gas contg. hydrogen sulphide - using alkaline activated carbon suspension in presence of oxygen and reacting with soln. contg. oxidising agent and alkali soln.
TOKYO SHIBAURA ELEC LTD 16.02.80-JP-018165
J01 (10.09.81) B01d-53/34
 16.02.80 as 018165 (96PW)

Method comprises (a) cleaning reductive malodorous gas contg. hydrogen sulphide with alkaline activated carbon suspension in presence of oxygen, (b) cleaning the gas from first process with soln. contg. oxidising agent, and (c) cleaning the gas from second process with alkali soln. Alkaline activated carbon suspension drawn from the first cleaning process is sepd. into activated carbon and soln. The carbon is returned to the first cleaning process and the residual soln. is used as cleaning soln. at the third process.

The process efficiently removes malodorous gas components such as hydrogen sulphide, methyl mercaptan, methyl sulphide, ammonia, trimethylamine, etc., with less consumption of activated carbon. (6pp)

TOKE ★ D22 78619 D/43 ★ J5 6115-619
 Decolourising and deodorising gas - by mixing with ozone-contg. gas and contacting with alkaline-activated carbon suspension and with soln. contg. oxidising agent
TOKYO SHIBAURA ELEC LTD 16.02.80-JP-018166
J01 (10.09.81) B01d-53/34
 16.02.80 as 018166 (96AT)

Decolourising and deodourising gas, comprises mixing reductive malodorous gas from pollutant treating plant and gas contg. unreacted ozone formed by decolourisation and cleaning of water used for treating pollutant, with ozone, and treating the mixed gas by contacting it with alkaline activated carbon suspension, then with soln. contg. oxidising agent and finally gas-solid contact with activated carbon.

The method comprises washing using first, second and third washing zones, and a granular activated carbon packed layer. Reductive malodorous gas is introduced into the first zone of the washing appts., together with unreacted ozone to remove ammonia and trimethylamine. The gas released from the first zone is fed into the second zone where gaseous hydrogen sulphide is absorbed into alkaline activated carbon suspension and oxidised in the presence of unreacted ozone and molecular oxygen. The alkaline activated carbon suspension contg. thiosulphate ions formed by oxidn. of hydrogen sulphide is fed to alkaline activated carbon suspension prepn. chamber. The gas leaving the second zone is supplied to the third zone, where thioether contained in the gas is oxidised with sodium hypochlorite soln. and removed. Gas released from the third zone is exhausted into the air through activated carbon packed layer, where 0.5-2 ppm of oxidative gas contg. chlorine and unreacted ozone formed by decomposition of oxidising agent at the third zone is removed.

The process considerably reduces consumption of both activated carbon and oxidising agent, and exhibits good effect for deodorisation of discharging waste water and redn. of COD. (4pp)

ALLR D22 06522 V/04 = J8 1040-807
 Cleaning of contact lens - using aq. soln. of complex salt and a chloride

ALLERGAN PHARM INC 31.01.72-US-222379
+ P81 (24.09.81) *J48085-158 + A01n-25/32 A01n-59/02 C11d-07/38 G02c-07/04 G02c-13
 29.01.73 as 011248 (RP)

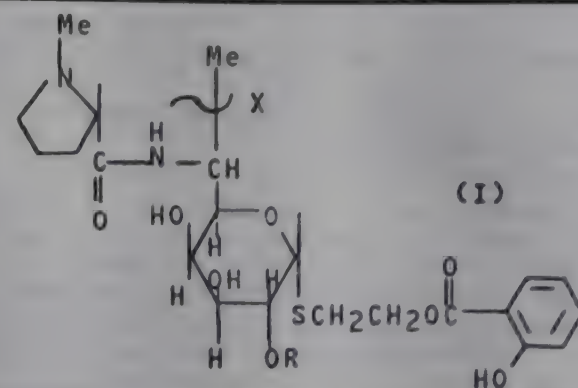
A contact lens is cleaned and sterilised by contacting it with a homogeneous aq. soln. contg. a non-toxic water-sol. cpd. (I) which discharges oxygen gas, and opt. also a water-sol. chloride salt (II).

(I) is pref. a cpd. of S or Cl, esp. a peroxy monosulphate partic. the complex salt 2 KHSO₄, KHSO₄, K₂SO₄. (II) is pref. NaCl, KCl or CaCl₂. The lens may be hard or soft, e.g. of (partially) hydrophilic crosslinked plastics hydrogel.

The soln. is non-irritating to the eye. (J48085158) (7pp)

UPJO D22 45992 U/33 = J8 1041-238
 7-O-demethylcelesticetine derivs - antibiotics and disinfectants
UPJOHN CO 03.01.72-US-215119
B03 P34 (D16) (26.09.81) *NL7217-796 A61k-31/71 C07h-15/16 C12p-19/64 C12r-01/46
 25.12.72 as 129426 (TM)

7-O-Demethylcelesticetine derivs. are of formula (I), where X = R = H, M = CH₃, and salts of (I) are new, and are prepd. by incubating *Streptomyces caelestis* 22227a (NRRL 5320) 2-10d at 18-40 deg., isolating from the filtered broth with a resin e.g., Amberlite (RTM) XAD-1, eluting with 95% MeOH, and purifying by chromatography on SiO₂-G, with 6:1 CHCl₃-MeOH. (J48077091) (12pp)



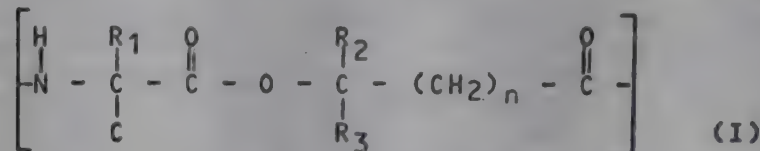
SUTU D22 72276 T/45 = J8 1041-249
 Hydrolysable copolymers - of amino acids and hydroxy acids useful as absorbable sutures

SUTURES INC 09.06.71-US-151577

A23 F01 + P34 (26.09.81) *ZA7107-572 A611-17 C08g-69/44

01.05.72 as 042660 (RH)

Hydrolysable film and fibre-forming polymer has repeating units of formula (I), where R is lower alkyl, aryl, alkaryl or aralkyl, R₁, R₂ and R₃ are each H or lower alkyl, with the proviso that at least 1 of R₁, R₂ and R₃ is H; and n is 0, 1 or 2. (J48014798) (8pp)



MITQ D22 26464 W/16 = J8 1041-293
 Apparatus for purification of polluted air - by catalytic oxidation in presence of ozone

MITSUBISHI ELECTRIC CORP (MITS) 20.12.72-JP-127952

E36 (28.09.81) *J49084-953 + B01d-53/34

20.12.72 as 127952 (DH)

An app. composed of an O₃ generator and a catalytic oxidn. tower is useful for purifying gas mixts. contg. oxidisable pollutants. The combination of O₃ and oxidn. catalyst improves the efficiency of the oxidn. process, and thus the appts. is useful for continuous oxidn. of CO in air.

In an example, active carbon (4-6 mesh) was placed in the bottom of a column (100 mm. dia.) to form a O₃ decompsn. bed (approx. 30 mm.), then Al₂O₃-supported AgO catalyst (6-8 mesh) was placed above the active carbon to form an oxidn. bed (30 mm.), and a porous polyester plate was provided at the top of the column.

Then air contg. 40-48 ppm. CO was led into the reaction column from the top conduit while ozonised air was led into the column through the porous plates so that the O₃ content in the mixt. was 60-74 ppm. The CO to CO₂ conversion efficiency was at least 90% when the space velocity of the mixt. through the catalytic bed was max. 2.7 x 10 power 4 per hr. When O₃ was not added, the conversion efficiency was approx. 18% at the space velocity of 2.7 x 10 power 4 per hr. (J49084953) (3pp)

SQUI ★ D22 79450 D/43 ★ US 4292-972
 Haemostatic, adhesive, bio-absorbable hydrocolloid foam sponge - contg. gelatin, sodium carboxymethyl cellulose, and pectin, possesses wet-tack, useful in skin grafting

SQUIBB & SONS INC 09.07.80-US-167257

A96 P32 (A11) (06.10.81) A61f-13

09.07.80 as 167257 (478MR)

Medically useful lyophilised sponge prod. of density 0.01-0.1 g/cc consists of (by wt.): 10-50% pectin (I); 10-50% Na carboxymethyl cellulose (II); and 20-80% gelatin (III). Pref. sponges contain (by wt.) 15-35% (I), 15-35% (II), and 30-70% (III).

A colloidal dispersion contg. pref. 3-9% by wt. of the (I)-(III) blend and 10-100% (by wt. of solids) of a surface tension modifier in water is aerated or foamed (to 10-85% pref. ca 60% by vol. entrapped gas), then freeze-dried at below 20 deg. C/ 50-150 mu. The prod. is then kept at relative humidity less than 50%.

Opt. sponge prods. can be cross-linked with HCHO, or glutaraldehyde, etc. (added at 0.1-10% by wt. of (I)-(III)) to aerated colloidal dispersion etc.) to reduce its water-solubility. In addn., plasticisers (propylene glycol, etc.) can be included at up to 30% by wt. of (I)-(III).

The sponge is capable of absorbing many times its wt. of blood or body exudates, possesses wet-tack, and is bioabsorbable. The prod. is thus useful as a haemostatic agent or as an adhesive in e.g. skin grafting procedures. (7pp)

JOHJ ★ D22 79517 D/43 ★ US 4293-367
Applying elastic strip to leg region of disposable diaper - along nonlinear edge by articulated head

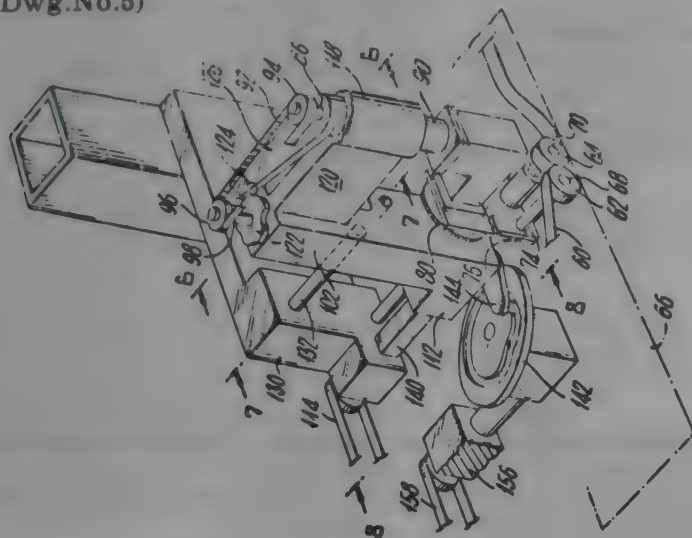
JOHNSON & JOHNSON 16.05.80-US-150516

P73 (06.10.81) B32b-31/08

16.05.80 as 150516 (295DH)

Pair of pinch rollers feed elastic strip onto a web to which the strip is subsequently secured. The pinch rollers are mounted on an articulated head which deposits the strip in a non-linear fashion which typically follows a cut-out section of the web. Lateral movement of the head with respect to the web is controlled by a cam, while a second cam causes the head to skew to maintain the pinch rollers perpendicular to the deposited elastic strip.

Pref. the web is used to form a disposable diaper and the elastic strip is applied to the edges of the cut-outs which receive the legs of the wearer. The elastic may be applied in a pre-stretched or relaxed condition to hold the diaper round the legs of a wearer. (11pp Dwg.No.5)



BUCL ★ D22 79610 D/43 ★ US 4293-559
Synergistic bactericidal and fungicidal compsn. e.g. for slime control - comprises 2-(thiocyanomethylthio) benzothiazole and 2'-hydroxyethyl 2-bromo-acrylate or -2,3 di-bromo-propionate

BUCKMAN LABS INC 29.03.78-US-891435

C02 F09 H01 (C03 D15) (06.10.81) A01n-43/78

29.03.78 as 891435 (914AS)

Synergistic bactericidal and fungicidal compsn. consists of 15-85 wt.pts. 2-(thiocyanomethylthio)benzothiazole (I) and 85-15 wt.pts. 2'-hydroxyethyl 2,3-dibromopropionate (II) or 2'-hydroxyethyl 2-bromoacrylate (III). A synergistic bactericidal and fungicidal mixt. of 20-30 wt.pts. (I) and 5-10 wt.pts. (II) is also claimed.

The compsn. can be used to control slime-forming microorganisms (such as *Enterobacter aerogenes*, *Aspergillus niger*, *Penicillium roqueforti* and *Chaetomium globosum*) and algae (e.g. *Chlorella pyrenoidosa*, *Chlorococcum hypnosporum* and *Phormidium inundatum*) in pulp and paper mills, fresh water supplies, cooling towers, etc.; and also to control sulphate reducing bacteria (e.g. *Desulphovibrio desulphuricans*) in sec. recovery petroleum operations. (5pp)

COFF/ ★ D22 79629 D/43 ★ US 4293-602
Compression moulded fragrant ornament - of powdered flowers, essential oil and fluorocarbon resin binder

COFFEY J P 17.12.79-US-104010

A86 P23 (06.10.81) A01n-03 A44c-25

17.12.79 as 104010 (1358AS)

An ornament is moulded from a mixture of particulate botanical fragrant material, an essential oil absorbed on the material or on a fixative, and a fibre-reinforced fluorocarbon resin binder which binds without masking or sealing the material, allowing release of fragrance and oil.

The binder is pref. dispersed throughout the material from an aq. suspension the material is rose, lavender, tuberose or orange flowers and the oil is from the same flower. The fixative may be

dried powdered *Vetiveria zizanicoides* root, oak moss lichen *Evernia prunastri*, or orris root. The ornament is pref. a jewelry piece and contains 95-98% material and 2-5% resin. (4pp)

DOWC ★ D22 79632 D/43 ★ US 4293-604
Flexible absorbent laminate - comprising crushed hydrophilic plastics film layer between wicking layers

DOW CHEMICAL CO 30.06.80-US-164644 (09.07.79-US-055586)

A94 F07 P73 (06.10.81) B32b-07

30.06.80 as 164644 (525JB)

A laminate comprises a central layer, of crushed water-swellaable hydrophilic polymer film and outer wicking layers. Pref. the film is aerated and has a density of 1.1-0.3 gms/cc. Pref. film is of lightly cross-linked carboxylic polyelectrolyte and wicking layers are woven fabrics, paper tissues, non woven fabrics or polymeric foams.

The laminate may be incorporated in a pad having wicking layers and an impermeable bottom sheet of e.g. polyethylene and a permeable top sheet of e.g. non woven mat. The laminate is made by drying a laminate to less than 8% by wt. water and then crushing the central polymeric film by passing it between rollers.

The laminate finds use as diaper material for both children and adults and has a tissue like feel at low relative humidities with rapid absorption. (7pp)

UNIS- D22 60456 D/34 = WP 8102-891
Suppressing ammoniacal odour from animal excrement - by contact with mono-or polybasic acids or salts and an absorbent filler

UNISCOPE INC (MOMM) 02.04.80-US-136553

E36 P14 P34 (15.10.81) *BE-888-237 + C05f-03/04 C05f-07 C05f-11/02 C23f-11/10

27.03.81 as U00391 (513JB) (E) US2218695 US2714553 J51018666 J50013539 FR2401120 N(AT AU BR CH DE DK FI GB JP LU NL NO SE) E(FR)

In a process for suppressing and limiting the ammoniacal odour of organic waste, esp. animal and human excrement, the waste material is contacted uniformly with an anti-ammoniacal agent comprising (a) monobasic salts or dibasic acids, monobasic or dibasic salts of tribasic acids, etc., mono-, di- or tribasic acids etc., with a dissociation constant pKa of less than the corresponding dissociation constant of the aq. ammonia, and (b) a sufficient amt. of an absorbent filler.

(a) is e.g. oxyacids of sulphur or phosphorus, monobasic alkali metal salts of oxyacids of sulphur, dibasic salts of oxyacids of phosphorus and alkaline earth dibasic salts of oxyacids of sulphur and phosphorus, or organic acids such as acetic acid, formic acid, EDTA, citric acid, etc. (b) is e.g. straw, sawdust, ground peanut shells, rice husks, alfalfa, diatomaceous earth, calcium sulphate and silicious materials.

The materials can be applied in liq. or granular form, e.g. to suppress unpleasant odour formation in pigstys, animal cages, zoos, etc. (22pp)

INME- ★ D22 D/43 ★ ZA 8005-40
Wound dressing - uses woven edge type bandage used in combination with synthetic plastics foam pad

IND MED SERVICES 02.09.80-ZA-005402 (17.08.79-ZA-004323)

P32 P34 (15.07.81) A61f A61I

02.09.80 as 005402 (DH)

Wound dressing includes a bandage adapted to be used in combination with a synthetic plastics foam pad, the bandage is of the woven-edge type. The pad can be an open-cell type foam or the foam pad is of the closed-cell type.

The dressing is assembled and stitched in a sterile room, and gamma ray irradiated to ensure sterility and with a roll of paper around the dressing on which is printed a form for making out a standardised accident report (14pp)

See Also

D13 EPG 004956 D16 US 4293651

D23: OILS; FATS; WAXES

BADI D23 56667 T/36 = DS 2106-245
Aldehydes prepn by hydroformylation - in presence of rhodium carbonyl complex as catalyst

BASF AG 10.02.71-DE-106243

C03 E17 (15.10.81) *DE2106-243 C07c-47/02 + C07c-45/50

10.02.71 as 106243 (47HM)

R1R2CHCH(CHO)CHR3R4 and R1R2CHC(CHO)=CR3R4

comprises hydroformylation of allyl alkanoates of formula R1R2C=CHCR3R4OCOR5 (but excluding but-2-ene-1,4-di-bismonocarboxylates) with CO and H2 in the presence of a rhodium carbonyl complex and opt. an inert solvent, at 50-150 deg. and 50-1500 atm.

with substituents, which are inert to the reaction conditions; and R5 is -3C alkyl. The reaction is pref. conducted in the presence of a substance which yields nucleophilic anions; or such substances are added after hydroformylation, the mixt. is heated to 60-130 deg., and the prods. are isolated by fractional distn.

The prods. are intermediates for terpene derivs., perfumes and plant pesticides. PS (3pp)

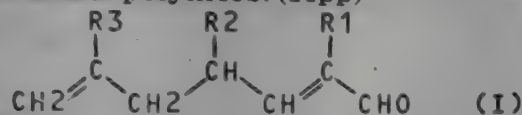
CONE ★ D23 78038 D/43 ★EP --37-584
2,6-Hepta:dien-1-al derivs. useful e.g. as odorants - prepd. by thermal rearrangement of 2-allyl-4-penten-1-a cpds.

CONSORT ELEKTROCHEM IND 09.04.80-DE-013672
A11 C03 E17 (14.10.81) A231-01/22 A231-02/26 A61k-07/46 C07c-45/67 C07c-47/21 C11b-09

08.04.81 as 102651 (280AT) (G) DE2439140 CH-479515 US4010207 DS2759425 E(BE CH DE FR GB IT LI NL)

New hepta-2,6-dienal derivs. are cpds. of formula (I), (where R1, and R2 are opt. branched aliphatic residues; and R3 is H or CH3).

(I) are useful as odorants and flavourings with citrus, woody or floral notes. They are also useful as intermediates for insecticides, insect attractants, and juvenile hormones, and as monomers for useful polymers. (14pp)



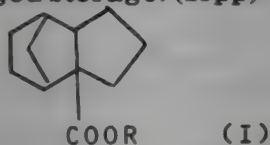
KAOS ★ D23 78164 D/43 ★FR 2478-084
Alkyl tri:cyclodecane-2-carboxylate derivs. - useful as perfume components for detergent, soap, shampoo etc.

KAOSOAP KK 11.03.81-FR-004884 (14.03.80-JP-032434)
E15 (D21 D25) (18.09.81) A61k-07/46 C07c-69/74

11.03.81 as 104884 (1251HM)

Esters of formula (I) are new. In (I) (R is 2-3C alkyl, specifically ethyl. (I) can exist in the endo- or exo-trimethylene isomeric forms. Also new are perfumes compsns contg (I). (I) are made e.g. by esterifying the corresp carboxylic acid with a dialkyl sulphate (a) in a lower alcohol solvent without an acid or alkaline catalyst, or (b) in aq soln in the presence of alkali.

(I) impart a woody rate to e.g. perfumes, soaps, shampoos, acidic or alkaline detergents etc. They have excellent stability towards heat, alkaline and acidic conditions, and do not discolour or decompose upon prolonged storage. (18pp)



INFL D23 83955 A/46 =GB 1600-678
Substd. oxy:acetaldehyde(s) and their acetal(s) prepn. - in fewer stages using phase transfer catalyst

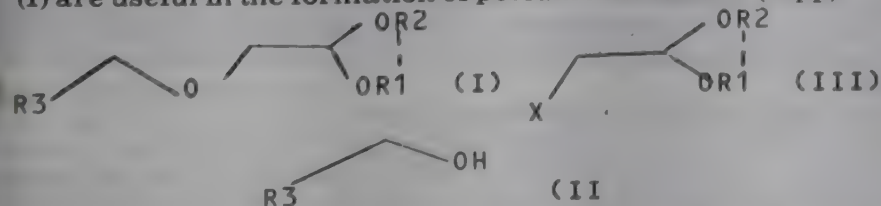
INT FLAVORS & FRAGR INC 30.06.77-US-811480
E17 (21.10.81) *US4124-644 C07c-47 + A61k-07/46 C07c-43/30
17.05.78 as 020261 (964TM)

Substd. oxyacetaldehyde cpds. of formula (I) are produced by reacting a hydroxy cpd. of formula (II) with a haloacetaldehyde of formula (III). In the formulae X is Cl or Br. R3 is alkyl, alkenyl or alkadienyl, and R1 and R2 are each 1-4C alkyl or together are 2-4C alkylene.

Reaction is in the presence of a base and a phase transfer agent of formula (NR4R5R6R7) (+) Q(-)(IV) (where at least one of R4-R7 is 6-14C aryl, 6-10C alkenyl, 6-20C alkyl or 6-20C alkenyl and the others are 1-8C alkyl and Q is halogen or hydroxyl ion). The reaction temp. is at 120-200 deg.C using a mole ratio of (II) to (III) of 0.5:1 - 2:1 with the mole ratio of hydroxy cpd. to base being 1:1 - 1:2.

The concn. of (IV) in the reaction mass based on the amt. of halogenated oxyacetaldehyde is 0.5g - 25 g (IV) per mole of halogenated oxyacetaldehyde. The prod. is fractionally distilled to produce (I).

(I) are useful in the formation of perfume materials. (22pp)



ANVR D23 80463 A/45 =GB 1600-942
Essential oil mfr. from fragrant plant - by disintegration with progressive heating, distillation and condensation (NL 31.10.78)

AGENCE NAT VALORISA 27.04.77-FR-012831
+P41 (21.10.81) *DE2817-963 C11b-09/02 + B01d-03 B02c-18/06 B02c-21

21.04.78 as 015936 (006AT)

High-speed extraction of aromatic essential oils from perfume-

generating vegetation, seeds, flowers, involves comminution in a reactor to form slurry, simultaneously with heating as the slurry is being formed, and with temp. control, so that oil-rich vapours are generated for rectification and condensing.

Pref. the material is comminuted in an extracting agent such as water, volatile organic solvent, or their mixts., to form the slurry. (10pp)

ASAE ★ D23 78588 D/43 ★J5 6115-399
Improving quality of fat from Shorea Robusta - by crystallising from n-hexane, acetone, or mixt. of n-hexane and ethanol

ASAHI DENKA KOGYO 14.02.80-JP-016870
(10.09.81) C11b-07

14.02.80 as 016870 (126RH)

The fat from Shorea Robusta is dissolved in at least 2 times weight based on wt. of fat, of an organic solvent, and the soln. is cooled to crystallise 90-98 wt.% of the fat, and the crystals are sepd. Pref. solvent is n-hexane, acetone, or mixt. consisting of n-hexane and ethanol. The cooling temp. is pref. 0-40 deg.C.

The fat extracted from the seeds of Shorea Robusta contains a large amt. of natural colouring matters and is dark green. Moreover, a characteristic taste is contained in the crude fat. Such colours and taste are removed and the regeneration of the taste of once purified fat is prevented.

In an example, degumming of the crude fat of Shorea Robusta (5.3 acid value and 40.1 iodine number) using 0.2% phosphoric acid and deacidification thereof using 1.25 equivalent NaOH based on the amt. of free fatty acid, were carried out by the usual process. 100g obtd. deacidified fat was mixed with 500g acetone and the mixt. was warmed at ca.50 deg.C while stirring to accomplish the dissolution of the fat completely. It was cooled in a dry ice/methanol coolant to -30 deg.C over ca 2 hr, and maintained for ca 1 hr. at this temp. to crystallise. Crystals were sepd. and washed with acetone cooled to -40 deg.C. 97.6 g crystals were obtd. The crystals were decolourised with activated clay and deodorised by the steam distn. under vacuum. The purified fat was stood for 10 days in an air thermostat at 63 deg.C. By the result of a sensory test (10 person panel) no one detected the characteristic odour and only one person felt the characteristic taste. (4pp)

ASAH ★ D23 78667 D/43 ★J5 6115-735
Jasmon(s) prodn. from opt. 3-methyl substd. 2-cyclopentenone - by reaction with halogenated hydrocarbon in polar solvent in presence of Gp/IA alkoxide, gives few by/products

ASAHI CHEMICAL IND KK 18.02.80-JP-017756
E15 (11.09.81) C07c-45/68 C07c-49/64 C07c-79/36

18.02.80 as 017756 (57NS)

Process comprises reacting 2-cyclopentenone or 3-methyl-2-cyclopentenone with halogenated hydrocarbon of formula (R1)X (R1 is alkyl, alkenyl, or alkynyl gp. X is Cl, Br or I), in polar non-proton type solvent (III) in the presence of alkali metal alkoxide (II) of formula (R2)OM (R2 is alkyl gp.; M is alkali metal atom). As (II) sodium (m)ethoxide, sodium propoxide, potassium methoxide, potassium tert-butoxide, lithium methoxide etc. are pref. Pref. (III) is DMF, DMSO, hexamethyl phosphoro triamide, and/or N-methyl pyrrolidone.

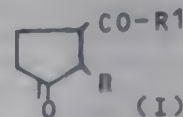
As alkali metal alkoxide, which can be obtd. cheaply, is used as base, jasmones can be mfd. cheaply. The process has good selectivity. The reaction time is short and temp. control is easy. (5pp)

POLA D23 32772 T/21 =J8 1041-609
2-alkyl-3-subst-cyclopentanones - useful in perfume compsns

POLAK'S FRUTAL WORKS INC 04.11.70-GB-052389
E15 (29.09.81) *DE2154-215 C07c-45 C07c-49/39

04.11.71 as 087977 (RH)

Title cyclopentanones of formula (I): (where R1 is methyl, ethyl or propyl and R is 4-7C alkyl), which have interesting fragrance properties (floral odours with exalting and fixative effect), are prepd. by reacting a 2-R-2-cyclopentanone with R1-CH2-NO2 in the presence of OH- and subjecting the resulting cpd. to a Nef reaction. (J47011024) (5pp)



POLA D23 64260 U/43 =J8 1041-630
Mercaptoalcohols and esters - for perfumery and flavours prepd from monoolefinic aldehydes or ketones and thioacetic acid

POLAK'S FRUTAL WORKS INC 06.04.72-GB-015807
E17 (D13) (29.09.81) *DE2316-456 A231-01/22 A61k-07/46 C07c-148 C07c-149/18

06.04.73 as 039412 (TM)

D25: OTHER DETERGENTS

NIL ★ D25 77846 D/43 ★ CA 1109-485
 High purity carboxy-methyl-oxy-succinic acid prodn. - by acidifying sodium salt and extracting with alcoholic solvent
UNILEVER LTD 15.05.78-US-906521 (15.05.78-US-905628)
E17 (D13) (22.09.81) C07c-59/30
 4.05.79 as 327570 (558HM)

Carboxy-methyl-oxy-succinic acid (I) is prepd. by reacting Ca carboxy-methyl-oxy-succinate with Na₂CO₃ in an aq. medium; removing pptd. CaCO₃; acidifying the obtd. carboxy-methyl-oxy-succinic acid tri-Na salt soln. with H₂SO₄; extracting (I) with a 4 or 5 C aliphatic alcohol and/or cyclohexanol; and sepg. (I) from the solvent. The use of 2-methyl-butanol-2 or tert.-butanol as the extractant is claimed.

Cpd. (I) is a detergent builder and a food acidulent. (I) of higher purity than that obtainable by conventional methods is produced without the use of an expensive ion exchange resin. CaCO₃ can be recycled to form the starting material. Na₂SO₄ is also a useful by-prod. (7pp)

JUNG/ ★ D25 77872 D/43 ★ DD -149-809
 Aq. glass cleanser compsn. prepn. - by adding ammonia soln. to aq. surfactant and opt. alcohol and reacting with magnesium chloride

JUNGK P 12.03.80-DD-219599
E33 (E35) (29.07.81) C11d-07/12
 12.03.80 as 219599 (200AS)

Liq. glass-cleanser compsn. is prepd. by (a) working an NH₃ soln. into a surfactant or surfactant-alcohol soln. and then (b) reacting with excess MgCl₂ waste liquor. The MgCl₂ waste liquor may be centrifuged or stored before use, to separate opacifying coloured clays. A glass cleanser can contain 0.2-0.4 % anion-active surfactant or surfactant mixt., 25% NH₃ soln., 25% MgCl₂ waste liquor, 0-10% 1-4C alcohols, and water to 100%.

Compsn. is used for cleaning solid glass surfaces, e.g. window panes, mirrors and table tops. Lower alcohol content can be obviated or reduced by adding an inexpensive incombustible material. (5pp)

BADI ★ D25 77899 D/43 ★ DE 3013-292
 Foam suppressor for washing powder - produced by later addition of carrier material after prior agglomeration with part of carrier material

BASF AG 05.04.80-DE-013292
(15.10.81) B01d-19/04
 05.04.80 as 013292 (236RH)

Prepn. of a low-melting foam suppressor in fine particulate form comprises spraying the foam suppressor melt onto fine particles of inert, inorganic support material 0.2-4 pts. wt. of foam suppressor melt and one pt. wt. of carrier material having a mean particle dia. less than 100 micron are used; the carrier particles are at a higher temp. than the m.pt. of the foam suppressor and spraying is carried out until the mixt. agglomerates to particles of dia. 100-1500 micron; there after 0.02-0.3 pts. fine particles having a softening point above the temp. of the mixt. are added and the mixt. is allowed to cool to below the melting temp. of the suppressor.

Used as a foam suppressor for household washing powders where the basic anionic constituents tend to excessive foam prodn. Method enables a low-melting foam suppressor to be produced in a powdered form which has a long shelf life. The later addn. of the quantity of powder, which may be the same material as the original carrier material, results in stabilisation of the agglomerated material. (10pp)

SHELL D25 23360 U/17 = DS 2248-308
 Monoalkylolamides of alpha alkyl branched carboxylic acids - foam promoters in washing compsns

SHELL INT RES MIJ BV 04.10.71-GB-046077
E16 (15.10.81) *NL7213-282 C07c-103/38 + C11d-03/32
 02.10.72 as 248308 (68NS)

New cpds. are alpha- methyl fatty acid- (N-beta hydroxyethyl) amides of formula CH₃-(CH₂)_n-CH(CH₃)-CO-NH-CH₂CH₂-OH (where n = 8-11). Such cpds. may be prepd. by reacting monoethanolamine with an alpha-methylalkanoic acid and heating the resulting amine salt.

Cpds. are useful as foam promoters in cleansing mixts., e.g. for dish washers. PS (4pp)

BATT D25 44432 B/24 = EP G002-428
 Automatic washing machines - with integral electrolytic peroxide generators, for efficient bleaching action without subsequent pollution problems

BATTELLE MEMORIAL 06.12.77-CH-014876

E36 F06 J03 (14.10.81) *EP---2-423 C01b-15/* C25b-01/30 D06f-35

04.12.78 as 810028 (922AT) (F) FR1335541 US3616442 US3969201 E(BE CH DE FR GB IT LU NL SE)

In a process for washing and bleaching textiles with an aqs. bath contg. a detergent compsn. free of bleaching agents, the bleaching is carried out by incorporation of a freshly prepd. aqs. alkaline oxidising soln. contg. hydrogen peroxide ions at the required stage, the soln. having been prepd. immediately before its incorporation by electro-redn. of oxygen. Plant for carrying out the process is also claimed.

The fresh, in situ. prepd. peroxy ions are more effective for bleaching so that lower temps. are usable and bleaching agent storage problems avoided. Environmental pollution is also lower (than when using perborate bleaches). (18pp)

BADI D25 64303 C/37 = EP G016-344
 Storage-stable aq. zeolite-type aluminosilicate suspension prepn. - by wet-grinding the moist reaction prod. without drying or after adding water

BASF AG 23.02.79-DE-907108

E33 (14.10.81) *DE2907-103 C01b-33/28 C11d-03/12

20.02.80 as 100828 (913MR) (G) DE2333068 DE2412836 DE2412838 DE2615698 DS2744784 DS1218415 DS2447021 E(AT BE CH DE FR IT NL SE)

Storage-stable, pourable and pumpable aq. suspension is produced contg. 20-60 wt.% finely divided, water-insol. aluminium silicates with Ca-exchangeable cations. Aluminosilicates obtd. in aq. suspension after prepn. are sepd. of mechanically (e.g. filtration), and the moist mass is wet-milled with intermediate drying. This is effected either directly or after having added water to bring the coater-content to 80 wt.%. The milled material, where necessary, is brought to the desired solids content.

Pref. starting material is produced by (a) mixing alkali metal silicate and aluminate, alkali metal silicate donor, aluminate donor or aluminium silicate and alkali metal hydroxide in an aq. medium, (b) mixt. passed through a reactor cascade of not less than 2 stages with a total residence time of 0.1-8 hrs., (c) aluminium silicate sepd. from the mother liquor, and (d) mother liquor recycled. Reactants are replenished as consumed so that at no later than the last stage, the molar compsn. corresponds to Me₂O:SiO₂ 1.0-2.5, SiO₂:Al₂O₃ 1.5-2.2, H₂O:Me₂O 25-100. Reaction temp. is 30-100 deg.C with at least the last stage at 80-100 deg.C.

Dispersant and stabilising auxiliaries are not used. The amorphous and crystalline zeolite-type aluminosilicates produced are used as phosphate substitutes in cleaners and detergents, with decreased environmental pollution problems. (10pp)

HENK ★ D25 78029 D/43 ★ EP -37-542
 Foam inhibitor for aq. system, esp. detergent compsn. - is prepd. by mixing branched prim. alcohol with water-repellent silicic acid and heating

HENKEL KG AUF AKTIEN 05.04.80-DE-013391

E17 F09 J01 (F06) (14.10.81) B01d-19/04 C11d-03

28.03.81 as 102369 (200AT) (G) No-citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Anti-foaming agents (A) for aq. systems are prepd. by mixing an 18-30C chain-branched prim. alcohol (I), with a colloidal silicic acid (II), rendered water-repellent, in (I):(II) ratio 100:2 to 100:20 (100:3 to 100:10) and heating to 100-240 deg.C with stirring, pref. in an inert gas atmos. for 1-5 hrs.

Anti-foaming agent (A) use as foam-inhibitors for aq. systems is pref. esp. in detergent and cleansing compsns. but also in paper industry, petroleum extn., sugar refining, textile industry, waste water treatment, cutting oil emulsions, in distn. and flotation. (A) have high foam-inhibiting activity and can be used in small concns., e.g. 0.01-1 (0.05-0.2) wt.% in a washing machine detergent compsns. contg. 5-30 wt.% surfactant. (A) are stable to alkalies and are not inactivated by aq. alkali or surfactant solns. (15pp)

KAOS ★ D25 78139 D/43 ★ FR 2477-874
 Perfume compsn. contg. methyl tri:cyclodecane carboxylate - giving stable, grassy note in detergent, shampoo, soap etc.

KAOSOAP KK 10.12.80-JP-174247 (14.03.80-JP-032435)

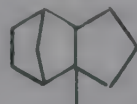
E15 (18.09.81) A61k-07/46

11.03.81 as 104885 (1251AT)

Compsns contg ester of formula (I) to impart a grassy note or essence are new. (I) can exist in the exo- or endo- trimethylene forms. (I) is prepn by esterification of the corresp acid with dimethylsulphate, (a) in lower alcohol solvent in absence of acidic or alkaline catalyst, or (b) in aq soln in presence of alkali.

The isomers have slightly different odours; esp exo-(I) has a piney-green-grassy odour and endo-(I) a comphorminty-grassy odour. They can be sepd by fractional distillation. (I) are pref made by gradual addn of aq alkali, esp 10-30% NaOH or KOH at 1-1.2 moles per mole acid, to a mixt of acid and dimethyl sulphate.

(I) are useful in perfumes, soaps, shampoos, acidic or alkaline detergents etc. They have high stability towards acids, alkalis and heat, and do not discolour or decompose during long-term storage. (I) are already known as intermediates for antiviral agents. (10pp)



COOCH₃ (I)

UNIL ★ D25 78171 D/43 ★ FR 2478-123
Dishwashing compsn. contg. sodium triphosphate - of specified moisture and pyrophosphate contents, sodium metasilicate and chlorine bleach

UNILEVER NV 13.03.80-FR-005676

E34 (18.09.81) C11d-07/14

13.03.80 as 005676 (1251MR)

Alkaline compsn comprises 15-70wt % Na triphosphate (I), 15-70 wt % Na metasilicate (II); 1-30 wt % chlorine bleach and opt a surfactant. The new feature is that (I) contains at least 5 wt % water and has Na pyrophosphate (III) content not over 10 wt % based on (I), and no hydrated (III) is present. Pref (I) contains 8-15 wt % water and not over 5 wt % (III), and is esp used as particles completely covered by (I) hexahydrate.

The compsns are made by simply any-mixing the components, esp using (I) which has been hydrated at 40-100 (40-50)deg C then dried for 1-2 hr with air at 50-70 (50-60)deg C.

The compsn are useful in domestic and industrial dishwashers and are storage stable without agglomeration. Bleaches are e.g. 1-5 wt % polychloroisocyanurate type bleaches or 20-30 wt % chlorinated trisodium phosphate type. Pref surfactants are low-foaming alkoxylated alcohols. (8pp)

COLG D25 55126 A/31 = GB 1600-907
Antistatic textile softening compsn. esp. for nylon - contains cationic softener and specified phosphoric acid ester

COLGATE PALMOLIVE CO 28.03.77-US-777994

A60 E11 F06 (A23) (21.10.81) *BE-865-367 D06m-13/32 D06m-13/46

23.03.78 as 011721 (945PW)

Fabric softening and antistatic compsn. comprises (1) 0.1-5 wt.% phosphoric acid ester or salt and (2) 0.1-10 wt.% nonpolymeric cationic softening agent. Cpd. (1) may be

R'O(CH₂CH₂O)_mPO(OM)₂ (I)

(R'O(CH₂CH₂O)_m)₂POOM (II)

ROPO(OM)₂ (III)

or (RO)₂POOM (IV)

where R' is 14-20C alkyl, m is 1-10; M is H, alkali metal or NH₄, and R is 6-10C alkyl. Pref. (1) is a mixt. of (I) and (II) in mol. ratio 4:1-2:3.

Suitably (2) is a quat. ammonium cpd. or imidazolium cpd. The compsn. may be an aq. soln. dispersion or emulsion. It is effective on nylon as well as other materials. (6pp)

ICIL D25 89619 A/50 = GB 1600-981
Liquid detergent compsn. used as washing powder substitute - contg. nonionic polyether surfactant, active additive and dispersant

IMPERIAL CHEM INDS LTD 26.09.77-GB-039906 (09.06.77-GB-024083)

A97 E34 (21.10.81) *BE-867-827 C11d-01/66 C11d-03/02

25.05.78 as ----- (393PW)

Detergent compsn. which is liq. at room temp. comprises a dispersion of 1 or more builders in water-free nonionic liq. surfactant and contains a dispersant for the builder.

Pref. the dispersant is Na or K CMC, a phosphate, Na or K carbonate, a clay, a Na or K borate, Na or K perborate, Na or K metasilicate, Na or K sulphate or Na or K chloride. The surfactant is pref. an alkoxylate of an amide, alkylphenol or alkanol.

The dispersion is partic. stable in the surfactant. (8pp)

RHON D25 87857 A/49 = GB 1601-040
Type 4A aluminosilicate prepn., esp. as detergent additive - by mixing recycle sodium silicate soln. with sodium aluminate soln. in stream esp. in venturi tube

RHONE-POULENC INDUSTRIES 03.06.77-FR-016991

E33 (21.10.81) *BE-867-781 C01b-33/28

31.05.78 as 025810 (924AS)

Prepn. of a crystalline Na aluminosilicate of the 4 Angstrom high cation exchange capacity type comprises mixing a Na silicate soln. and a Na aluminate soln. to form a gel, and crystallising the gel. The mixing is effected by introducing at least a part of at least one of the solns. in line in a recycled liquor flow from the region where the gel is formed before crystallisation.

Pref. Na silicate soln. is introduced into the recycled liquor flow. Specifically, the Na silicate soln. is injected into the axis of a Venturi while aluminate soln. from the region where the gel is formed is injected coaxially into the same venturi. The soln. is recycled from the gel-formation region in such a way that the rate of flow of the recycled soln. is 5-50 times the rate of flow of Na silicate soln.

The prod. has a grain size partic. suitable for producing aluminosilicates for use in detergents. The prod. contains little amorphous material and virtually no hydroxysodalite. (9pp)

BUDA ★ D25 D/43 ★ HU T021-23
Bleaching cellulose-contg. fibrous materials - using compsn. contg. singlet and active oxygen

BUDAPESTI MUSZAKI EGYETE 24.08.79-HU-BU0949

F06 (28.09.81) D06l-03/02

AJIN ★ D25 78589 D/43 ★ J5 6115-40
Detergent compsn. - contg. salts of N-long chain acyl mixed acidic, neutral and basic aminoacid(s)

AJINOMOTO KK 18.02.80-JP-018921

E19 (10.09.81) C11d-01/10

18.02.80 as 018921 (126RH)

Novel detergent compsn. contains salts of N-long chain acyl mixed aminoacid of the following compsn. as a foam increasing agent: 40-60wt.% acidic aminoacid; 20-59wt.% neutral aminoacid; 1-20wt.% basic aminoacid.

Although fattyacid alkanolamides have been used as the foam increasing agent for shampoo, soap, and kitchen detergent, it is considered that the use of fattyacid alkanolamides is to be avoided because they may contain organic amines e.g. diethylamine, triethanolamine etc. as impurities or decomposition prods. and such organic amines are the precursors for carcinogenic nitrosamines. The novel detergent has excellent frothing effect and non-irritative effect to the skin or hairs without using fattyacid alkanolamides. (6pp)

NIHS ★ D25 78626 D/43 ★ J5 6115-6
Emulsion compsn. of oil-poly:ol or poly:ol-oil type - using hydrophilic ester obtd. by esterifying polyoxyalkylene poly:ol emulsifying agent

NIPPON SURFACTANT KK 19.02.80-JP-019532

A97 E19 (10.09.81) B01f-17/44 C10l-01/32 C11d-01/72

19.02.80 as 019532 (96BZ)

Emulsion compsns. which comprises oil/polyol or polyol/oil type emulsion consisting of one or more kinds of polyhydric alcohol, one or more kinds of water-insoluble liquids and hydrophilic ester obtd. by esterifying polyoxyalkylene polyol with one or more kinds of fatty acid or amino acid. The added polyalkyleneoxide less than 10 mole to 1 mole of polyhydric alcohol having more than 3 of hydroxy gps.

Among polyhydric alcohol are included ethylene glycol, polyethylene glycol, glycerin, polyglycerin, pentaerythritol, sorbitol, sorbitan, cane sugar, lactic acid, and starch-decomposed sugar. Among water-insoluble liquid are included animal and vegetable oils, mineral oil, and silicone oil. Among fatty acid are included stearic acid, ricinoleic acid, lactic acid, citric acid and fumaric acid. Among amino acid are included aspartic acid, aminobutyric acid, alanine, isoleucine, glycine, glutamic acid, cystine, serine, tyrosine, typtophan, valine, phenylalanine, methionine, lysine and leucine.

The ester exhibits superior characteristics to commercial available emulsifying agent. (4pp)

HUBE D25 47364 U/34 ★ J8 1041-50
Alkali metal polysilicate - complexes as detergent auxiliary replacing polyphosphates

HUBER J M CORP 28.10.71-US-193484 (23.03.73-JP-034012)

E34 (29.09.81) *FR2157-942 C01b-33/32 C11d-03/08

23.03.73 as 034012 (TM)

Complex is prepd. by (1) heating at 138-210 deg. C an aq. dispersion contg. an alkali metal hydroxide, finely divided silica and an alkali metal sulphate long enough to form an at least partially polymerized silicate.

A complex prepd. thus with a wt. ratio $\text{SiO}_2:\text{Na}_2\text{O}$ of 1.8-2.7:1, a volumic mass 0.48-0.96 g/cm³ and greater than 25% water is claimed. Washing compsn. contains anionic, nonionic or amphoteric surfactants and the complex in the wt. ratio 1:10-10:1. (J49123200) (12pp)

BALL- D25 65979 C/38 = US 4293-318
Purificn. of gas mixts. contg. detergent powder from spray drying - by washing with strong salt soln.

BALLESTRA CHEM SPA 16.05.79-IT-012598

E34 J01 (06.10.81) *BE-883-123 B01d-47

06.05.80 as 147244 (924PW)

Wet purificn. of a gaseous mixt. from the prodn. of detergent insoluble in a saline soln. and contg. detergent powder in suspension in a gas, is described. The process comprises washing

the gaseous mixt. with an aq. NaCl soln. contg. 18-22 wt.% NaCl to form a solid-liq. suspension of the powder in NaCl soln., sepg. detergent from the suspension and recycling the soln., and exhausting the washed gas from which detergent powder has been removed by the washing.

Pref. the NaCl soln. is supplied at a rate of 0.1-1/h for each cu.m/h of the gaseous mixt. Pref. the speed of the gaseous mixt. to be purified is 2-5m/sec. The process gives good extrn. results. (4pp)

See Also

D21 GB 2073768 D23 FR 2478084

- AABE- 09.12.77 KONINIC AABE FAB BV A96 D22 F07 (A18) = GB 1600-768
Absorbent underlay sheet impermeable to discharged body fluids - 48338B/26
- * ABBO 29.03.79 ABBOTT LABORATORIES B03 D16 *US 4293-689
3-O-demethyl fortimicin B prodn. - 79675D/43
- * ABBO 03.04.80 ABBOTT LABORATORIES B04 D16 *EP --37-687
Recombinant dna segment for insertion into plasmid - 78085D/43
- ADIB/ 14.03.80 ADIBIS B05 D13 = FR 2477-843
Nutritional soln. contg. di- or tri-peptide cpds. - 53481D/30
- AGAN- 19.09.79 AGAN CHEM MFG LTD C03 D15 = BR 8006-039
Rapid decomposition of herbicide residues in aq. waste - D/43
- * AGAN- 19.09.79 AGAN CHEM MFS LTD C03 D15 *ZA 8005-800
Rapid decomposition of herbicide residues in aq. waste - D/43
- AGEN 05.09.72 AGENCY OF IND SCI TECH D17 E13 (D16) = J8 1041-233
Fructose enzymatic production - 60604V/34
- AGEN 09.08.74 AGENCY OF IND SCI TECH D15 = J8 1041-314
Electrolytic oxidation of pulp waste water - 25132X/14
- AGEN 27.12.76 AGENCY OF IND SCI TECH B05 C03 D23 E14 = HU T020-914
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- * AGEN 18.02.80 AGENCY OF IND SCI TECH A96 B04 D16 J04 *J5 6115-950
Enzyme electrode for determining urea - 78709D/43
- AGRO- 29.04.80 AGROBER MEZOGAZDASA D22 = HU T020-780
Conveyor for continuous can steriliser, esp. hydrostatic - 66090D/37
- * AGRO- 05.06.80 AGROBER MEZOGAZDASA D14 *HU T020-781
Can sterilising container - D/43
- AIRP 09.10.79 AIR PRODUCTS & CHEM INC D15 = ZA 8006-238
Waste water treatment with activated biomass - 29374D/17
- * AJIN 18.02.80 AJINOMOTO KK D25 E19 *J5 6115-400
Detergent compsn. - 78589D/43
- ALFA 01.10.79 ALFA-LAVAL AB D16 = ZA 8006-079
Ethanol prodn. - 28421D/16
- ALFA 15.01.80 ALFA-LAVAL AB D13 S02 = DK 8100-149
Appts. for weighing and mixing powder and liq. - 55492D/31
- ALKU 04.03.77 AKZO NV B04 C03 D16 = CA 1109-393
Egg drop disease vaccine prodn. - 65275A/37
- ALKU 26.10.78 AKZO NV A82 D23 G02 = US 4293-345
Compsn. for replacing montan or carnauba wax - 36909C/21
- ALLR 31.01.72 ALLERGAN PHARM INC D22 = J8 1040-807
Cleaning of contact lens - 06522V/04
- * ALTA= 17.08.79 ALTAI ANIMAL HUSBAN C03 D13 *SU -801-832
Mixer for urea and molasses - 79352D/43
- AMAN 24.12.79 AMANO PHARM KK B04 D16 = DE 3048-875
Microbial poly:amine oxidase DC-3 - 66826D/37
- * AMBI= 10.04.79 A MED BIOL MODELS D16 *SU -800-192
Microorganisms anaerobic culture unit - 79129D/43
- AMCY 18.04.78 AMERICAN CYANAMID CO A91 D15 (A14) = HU T020-890
Dewatering lime disinfected sewage sludge - 56195B/30
- * AMMA 11.04.80 AMF INC D11 *GB 2073-647
Rounder bar for shaping dough pieces - 78248D/43
- AMSA 01.08.79 AMERICAN STERILIZER D22 #CA 1109-368
Ultrasonic cleaning and biocidal treatment in same vessel - 23576C/13
- * ANDI= 27.07.79 ANDIZHAN AGRIC SUPP D13 *SU -801-831
Synthetic milk production unit - 79351D/43
- * ANIM= 28.03.79 ANIM HUSB FODDER C03 D13 S03 *SU -800-856
Residual humidity measurer in dried granular material - 79319D/43
- ANVR 03.12.76 AGENCE NAT VALORISATION B05 C03 D21 E19 (D13 D24) = HU T020-924
Alpha-amino acid prodn. from amino nitrile - 38450A/22
- ANVR 27.04.77 AGENCE NAT VALORISA D23 = GB 1600-942
Essential oil mfr. from fragrant plant - 80463A/45
- APOT 06.10.76 APOTHEKERNES LAB FU A/S C01 D13 = HU T021-192
Animal feed additive contg. zinc bacitracin - 10348A/06
- APVC 15.01.80 APV-CARLSON LTD B05 D16 J01 = DK 8100-144
Filtering liquids. with electrically conducting high surface area bed - 55439D/31
- * ARAK/ 10.03.80 ARAKAWA S B04 D16 *EP --37-441
Compsn. contg. attenuated strain of vaccinia virus - 77997D/43
- ARBE 09.11.78 ARBED SA D16 = HU T020-904
Aerobic prodn. of compost from household rubbish - 39385C/22
- ARBE 16.11.78 ARBED SA D16 = HU T020-736
Inertia sepn. of non-degradable impurities from aerobic compost - 22117C/13
- * ASAE 14.02.80 ASAH DENKA KOGYO D23 *J5 6115-399
Improving quality of fat from Shorea Robusta - 78588D/43
- * ASAG 20.02.80 ASAH GLASS KK D15 J04 *J5 6115-692
Solidification of sludge or its incinerated residue - 78637D/43
- * ASAH 18.02.80 ASAH CHEMICAL IND KK D23 E15 *J5 6115-735
Jasmane(s) prodn. from opt. 3-methyl substd. 2 cyclopentenone - 78667D/43
- * ASBI= 09.11.78 AS USSR BIOLOG INSTR D16 *SU -800-191
Microbial cell disintegrating unit - 79128D/43
- * ASBI= 08.01.79 AS USSR BIOCHEM INST D16 *SU -799-707
Brown colourant for brandy and foodstuffs - 78990D/43
- * ATAR- 15.01.79 ATARA CORP D15 *US 4293-506
Liq. circulation device submerged in liq. - 79584D/43
- BADI 10.02.71 BASF AG C03 D23 E17 = DS 2106-243
Aldehydes prepn by hydroformylation - 56667T/36
- BADI 23.02.79 BASF AG D25 E33 = EP G016-344
Storage-stable aq. zeolite-type aluminosilicate suspension prepn. - 64303C/37
- BADI 01.09.79 BASF AG C02 D22 E13 F09 = ZA 8005-327
Fungicide 1-phenyl-propyl-imidazole and -1,2,4 triazole derivs. - 21614D/13
- BADI 16.01.80 BASF AG C03 D16 = DK 8100-165
Fungicide intermediate optically active 3-phenyl 2-methyl derivs. - 55258D/31
- BADI 22.03.80 BASF AG A97 D25 E17 = DE 3011-237
Isopropyl end-modified alkoxylated fatty alcohol surfactant prepn. - 74070D/41
- BADI 24.03.80 BASF AG A60 C02 D22 E13 = EP --37-468
Fungicides contg. 1,2,4-triazole derivs. - 73933D/41
- * BADI 05.04.80 BASF AG D25 *DE 3013-292
Foam suppressor for washing powder - 77899D/43
- BALL- 16.05.79 BALLESTRA CHEM SPA D25 E34 J01 = US 4293-318
Purificn. of gas mixts. contg. detergent powder from spray drying - 65979C/38
- * BALO/ 02.04.80 BALOGH A D15 *WP 8102-905
Pond contg. filtered water alongside polluted stream - 79738D/43
- BATT 06.12.77 BATTELLE MEMORIAL D25 E36 F06 J03 = EP G002-423
Automatic washing machines - 44432B/24
- BATT 14.12.79 BATTELLE INSTITUTE A97 C04 D15 = J5 6115-697
Sewage sludge conversion into soil improving agent and fertiliser - 49832D/28
- BENE 20.05.77 BENECKE J H GMBH A87 D22 = GB 1600-844
Composite absorbent sheet for hygienic and medical uses - 68978A/39
- BERG/ 10.01.72 BERGNER H C03 D13 = DD --94-124
Fodder pellets prodn - 06765U/06
- BIOR- 01.11.79 BIO-RESPONSE INC B04 D16 = ZA 8006-506
Monoclonal antibody prodn. - 38549D/22
- * BIOT- 04.04.80 LABS BIOTROL SA A96 D22 *EP --37-785
Sound absorbent inert for an artificial anus - 78122D/43
- * BIOT= 25.04.79 BIOTECH RES INST D16 *SU -800-193
Air microbiological analyser - 79130D/43
- BOEF 07.12.73 BOEHRINGER MANNHEIM GMBH B04 D16 S03 S05 = SE 8103-735
Activating cholesterol oxidase with surfactants - 40938W/25
- BOEF 20.08.79 BOEHRINGER MANNHEIM GMBH B04 D16 = ZA 8005-072
Cholesterol esterase prodn. from specific Pseudomonas species - 23782D/14
- BOEF 20.08.79 BOEHRINGER MANNHEIM GMBH B04 D16 = ZA 8005-073
Microbiological cholesterol oxidase prodn. pref. from Pseudomonas - 17691D/11
- BOEF 29.02.80 BOEHRINGER MANNHEIM GMBH A96 B04 D16 S03 = DE 3007-764
Turbidimetric determination of beta-lipoprotein - 68239D/38
- BOLI 05.03.80 BOLIDEN AB D15 E37 = SE 8001-720
Heavy metals removal from acidic aq. solns. - 73713D/40
- * BOMB- 10.04.80 BOMBAY HALWA LTD D11 *GB 2073-573
Spiral depositor for depositing batter in hot oil - 78229D/43
- * BRET- 11.03.80 GRP OST BRETAGNE SUD D12 *FR 2477-842
Opening oyster shells to extract oysters for treatment - 78132D/43
- BRIM 23.08.79 BRISTOL MYERS CO A96 D21 (A26) = ZA 8005-193
Silicone polymer compsn. for hair treatment - 17456D/11
- BRIY 13.09.72 BRISTOL BANYU KK B04 D16 = J8 1041-236
Anti-biotic complex BU 1975 - 02618W/02
- * BROL 10.04.80 BROOKE BOND FOODS C03 D13 *GB 2073-574
Cheese compsn. contg. powdered alpha-cellulose - 78230D/43
- BROW- 30.08.79 BROWN CO D14 = US 4293-354
Ice-cream container sealing machine - 19576D/12
- BRPE 17.01.80 BP CHEMICALS LTD C01 D22 E12 L02 (D11) = DK 8100-176
Solid di:potassium penta:propionate - 57279D/32
- BRPE 17.01.80 BP CHEMICALS LTD C01 D22 E12 L02 (D11) = FI 8100-086
Solid di:potassium penta:propionate - 57279D/32
- BRTA 12.03.71 BRIT AMER TOBACCO LTD A88 D18 F04 (A94) = DS 2210-928
Cigarette filters - 60658T/38
- BRTA 13.11.79 BRIT AMER TOBACCO LTD D18 E14 J01 = ZA 8006-693
Filter for removing nitric oxide, esp. from tobacco smoke - 21478D/13
- BRTO 18.12.79 BOC LIMITED D15 = ZA 8007-896
Dissolving oxygen in flowing waste water - 51653D/28
- BRYA/ 26.02.80 BRYANT B J B04 C03 D16 #ZA 8001-087
Prodn. of male-specific antibodies - 66565D/37
- * BUCL 29.03.78 BUCKMAN LABS INC C02 D22 F09 H01 (C03 D15) *US 4293-559
Synergistic bactericidal and fungicidal compsn. e.g. for slime control - 79610D/43
- * BUDA 24.08.79 BUDAPESTI MUSZAKI EGYETE D25 F06 *HU T021-233
Bleaching cellulose-contg. fibrous materials - D/43
- * BUDA/ 21.12.79 BUDA B D13 (D12) *HU T020-778
Bakeable meat substitute with high protein content - D/43
- * BUDV- 04.08.78 BUDAPESTI VEGYIPARI D15 E32 L03 *HU T021-208
Lead oxide recovery from storage battery plant wastes and effluents - D/43

BUTC/ 28.10.77 BUTCHER LD D18 X25 = US 4292-982
Machine to strip tobacco leaves from their stalk - 88692C/50

- *CAIE/ 31.10.77 CAIELLO JA D11 *US 4293-296
Cheese block mould - 79488D/43
- CALO- 13.11.79 CALOR AGRIC RES INC C03 D13 E12 = FR 2478-079
Solidified, fermented, ammonia-treated condensed milk - 38424D/22
- CARS- 09.06.77 CARSAN PRODUCTS CO D21 E16 = GB 1600-807
Setting hair using guanidine hydroxide as active agent - 20330B/11
- CEPA 29.08.79 CELLULOSE PAPER IND RES D15 F09 #HU T020-889
Waste water clarifier for cellulose industry - 15740D/10
- *CETU- 25.05.79 CETUS CORP B04 D16 *US 4293-652
Sequential synthesis of DNA - 79657D/43
- CHCC 21.05.73 CHISSO CORP D15 J01 L02 = J8 1041-316
Chromium-contg. waste acid treatment - 02435X/02
- CHFS 27.12.78 CHEM FAB STOCKHAU A41 D15 E16 F09 (A14 A97) = EP -- 37-590
Quat. (meth)acrylyl urea cpds. and their (co)polymers - 48329C/28
- *CHIM- 02.04.79 CHIMICASA GMBH D13 *US 4293-570
Confectionery prod. including cryptocrystalline sweetener - 79615D/43
- CHRI/ 14.10.76 CHRIST C D13 = US 4293-655
Ensilage process for vegetable or animal substances - 30451A/17
- CHRI/ 31.10.78 CHRIST C D13 = HU T021-190
Fermented vegetables in hermetic synthetic packagings - 35890C/20
- CIBA 28.09.79 CIBA GEIGY AG D25 E19 = ZA 8005-979
Soaking, washing or rinsing compsn. for textile brightening - 27749D/16
- *CIBA 01.04.80 CIBA GEIGY AG A97 D21 G02 (A82) *EP --37-798
Orange paint and printing ink mono:azo pigment - 78126D/43
- *CLAV/ 12.03.80 CLAVEL R D12 *FR 2477-839
Abattoir conversion of waste blood into paste for pet foods - 78131D/43
- CNSM 22.11.79 CENTRALE SUIKER MIJ NV D15 #HU T020-888
Anaerobic effluent treatment tank with reaction and settlement zones - 85962B/48
- *COFF/ 17.12.79 COFFEY J P A86 D22 *US 4293-602
Compression moulded fragrant ornament - 79629D/43
- COKE 11.07.78 COCA-COLA CO D13 E13 = EP G007-095
Anthocyanin coloured food - 05783C/04
- COLG 19.08.76 COLGATE PALMOLIVE CO D22 = CA 1109-203
Tape fastener for disposable diaper - 68422Y/38
- COLG 19.08.76 COLGATE PALMOLIVE CO D22 = CA 1109-204
Disposable diaper - 68423Y/38
- COLG 18.11.76 COLGATE PALMOLIVE CO D22 = CA 1109-206
Disposable diaper with edge fastening tapes - 06082A/03
- COLG 26.11.76 COLGATE PALMOLIVE CO A96 D22 F07 = CA 1109-205
Disposable nappy with absorbent facing fabric - 23396A/13
- COLG 28.03.77 COLGATE PALMOLIVE CO A60 D25 E11 F06 (A23) = GB 1600-907
Antistatic textile softening compsn. esp. for nylon - 55126A/31
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E12 J01 = DK 8005-022
Extracting oil from aq. detergents, esp. sodium lauryl sulphate - 25436D/15
- COLG 20.12.79 COLGATE PALMOLIVE CO A96 D22 = J5 6115-637
Absorbent pad for immobilising liquids - 34324D/19
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = FI 8100-237
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = FI 8100-238
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- *COMS 24.03.80 COMMISS ENERGIE ATOMIQUE A96 D22 G03 (A21) *EP -- 37-759
Cement compsn. for bonding bone prosthesis - 78112D/43
- CONE 09.04.80 CONSORT ELEKTROCHEM IND A11 C03 D23 E17 = DE 3013-672
2,6-Hepta:dien-1-al derivs. useful e.g. as odorants - 78038D/43
- *CONE 09.04.80 CONSORT ELEKTROCHEM IND A11 C03 D23 E17 *EP --37-584
2,6-Hepta:dien-1-al derivs. useful e.g. as odorants - 78038D/43
- CORO/ 19.06.78 CORONEOS J H D12 = CA 1109-325
Chopped beef discs possessing high cohesion for roasting - 00173C/01
- CORP 30.01.80 CPC INTERNATIONAL INC D13 = FI 8100-071
Cheese spreads prodn. with good shelf life - 60776D/34
- CORP 15.02.80 CPC INTERNATIONAL INC B04 D16 = FI 8100-425
Recombinant DNA contg. amylase coding gene - 62878D/35
- *CSEH/ 27.11.79 CSEH K B05 D21 *HU T021-195
Mouth rinse for gum disorders - D/43
- *CSMA= 20.12.77 CONS MATER IND SAFE D15 *SU -801-848
Industrial aq. waste settling tank - 79357D/43
- CURT- 12.02.80 CURTIS H IND INC A96 D21 (A14) #FI 8000-422
Water-based creme rinse compsn. for hair - 51483C/29
- DAAN- 31.01.80 DANSK ANDELS KODFOD C03 D13 = FI 8004-084
Mfg. powdered protein prods. from animal material - 60723D/34
- *DAGE= 03.04.79 DAGESTAN POLY D16 *SU -800-184
Prod. of dry brewing wort concentrate - 79121D/43
- DAIL 22.04.78 DAICEL KK A88 D18 (A11) = US 4292-984
Cellulose acetate fibres cigarette filter - 81098B/45

- *DAIR= 10.01.79 DAIRY IND RES INST D13 S03 *SU -800-872
Prod. of milk sample for use as colorimetric standard - 79328D/43
- DCAF 02.04.80 DCA FOODS INDS INC D14 = BR 8101-984
Machine to remould ice lolly etc. on stick - 75743D/42
- *DEAK 10.03.80 AKAD WISSENSCHAFT DDR D16 *DD -149-810
Protein-contg. biomass prepn. by HB 201-ZIMET B 612 cultivation - 77873D/43
- DERA- 17.08.76 DERAL SA D13 = HU T021-193
Silaging process for plants for animal feeds - 90092Y/51
- *DIAS- 15.02.80 DIA SEIYAKU KK A96 D21 G02 *J5 6115-710
Nail enamel which can be peeled off - 78646D/43
- DIEP- 16.03.77 DIEPAL D11 = GB 1600-783
Double-screw extruder outlet for paste strips - 51657A/29
- *DNII 20.02.80 DAINIPPON INK INST CHEM D15 J04 *J5 6115-692
Solidification of sludge or its incinerated residue - 78637D/43
- *DNIN 20.02.80 DAINIPPON INK CHEM KK D15 J04 *J5 6115-692
Solidification of sludge or its incinerated residue - 78637D/43
- *DONE= 30.03.79 DON MED INST D16 *SU -800-194
Microbial cells cultivating chamber - 79131D/43
- DORN- 26.04.78 MASCHFAB DORNHAN GM D12 = EP G004-933
Band saw for meat and bones - 42497B/23
- *DOWC 09.07.79 DOW CHEMICAL CO A94 D22 F07 *US 4293-609
Flexible absorbent laminate - 79632D/43
- DRED 24.01.72 VEB ARZNEIMITTEL DRESDEN B01 D16 = DD -94-363
Conversion of digitoxigenin glycosides into digoxin and gitoxin - 11188U/09
- DSOH- 22.05.75 DSO HRANMASCH D16 (D13) = HU T021-010
Mycelium culture growth of polyporus species - 94585X/51
- DUPO 13.06.75 DU PONT DE NEMOURS CO D13 (D16) = US 4293-575
Mycelium conversion to human food - 00324Y/01
- DUPO 09.04.76 DU PONT DE NEMOURS CO D16 = CA 1109-407
Prod. of water-soluble amylose - 45053Y/25
- *DUPO 18.04.80 DU PONT DE NEMOURS CO A88 D15 J01 (A23) *US 4293-420
Storage of reverse osmosis membranes - 79543D/43
- EBAI 10.04.74 EBARA INFILCO KK D15 J01 = HU T020-816
Sepn of solids from suspensions - 72707W/44
- *EBAI 15.02.80 EBARA INFILCO KK D15 J01 *J5 6115-684
Removal of impurities from condensate - 78635D/43
- EFFE- 15.08.77 EFFEM FOODS PTY C03 D13 = US 4293-576
Animal food, esp. for cats and dogs, based on animal blood - 14161B/08
- *EGYI 29.03.79 EGYESULT IZZOLAMPA VILLA D15 *HU T020-885
Ion exchange columns for water softeners - D/43
- EIKM/ 01.10.79 EIKMAN EA D16 S05 = EP --37-416
Automatic fluid contamination monitor - 29048D/16
- EKAA- 05.03.80 EKA AB D25 E19 = SE 8001-698
Anti-redeposition agent for preventing greying of polyester - 68335D/38
- ELCL 21.01.80 UK ELECTRICITY COUNCIL D14 X25 = DK 8100-230
Ohmic heating of electrically conductive flowable material - 57294D/32
- ELCL 21.01.80 UK ELECTRICITY COUNCIL A88 D14 J04 X25 = DK 8100-231
Heating electrically conductive flowable media - 55494D/31
- ELCL 21.01.80 UK ELECTRICITY COUNCIL D14 J09 X25 = DK 8100-232
Heating electrically conductive flowable material - 55583D/31
- ELIL 13.12.79 ELI LILLY & CO B02 C02 D22 = DK 8005-281
Re-acylated derivs. of cyclic peptide antibiotics - 45990D/26
- ELIL 13.12.79 ELI LILLY & CO B02 C02 D22 = J5 6115-754
Re-acylated derivs. of cyclic peptide antibiotics - 45990D/26
- *ELIL 21.02.80 ELI LILLY & CO B02 C02 D16 *US 4293-649
Antibiotic A-33853 prodn. - 79655D/43
- *EMBL- 14.04.80 EMBLEUROPAISCHES L B04 D16 *DE 3014-189
Mfg. highly immunogenic detergent, and lipid-free sub-unit vaccines - 77974D/43
- *ENDO/ 19.02.80 ENDO A B04 D16 *J5 6115-717
Monacolin K or ML-236B derivs. prepn. - 78653D/43
- ENFO/ 05.03.80 ENFORS S D16 J04 S03 = SE 8001-711
Enzyme electrode using oxygen consuming enzymes - 68336D/38
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = US 4293-333
Recovery of metals from low concn. aq. solns. - 60922D/34
- ENGH 12.02.80 ENGELHARD MINERALS CORP D16 M25 = US 4293-334
Recovery of metals from low concn. aq. solns. - 60923D/34
- ENIE- 01.02.80 ENIENTE NAZ IDROCA D16 (D17) = FI 8004-090
Alpha-galacto:oxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- ENIN- 15.02.79 ENI ENTE NAZ IDROCA B03 D16 E13 (D17) = HU T021-011
Fructose prodn. - 90861C/51
- *ENTE- 07.03.74 ENTENMANN INC D15 *US 4293-416
Clarifier tank for treating cake baking plant effluent - 79540D/43
- ENVI- 11.03.77 ENVIRONMENTAL ELEME D15 J01 = CA 1109-402
Multicelled granular filter - 07675B/04
- ERAP 03.10.79 SOC NAT ELF AQUITAINE D21 E16 (D18) = US 4293-543
Dyeing keratin substances, e.g. skin, nails, hair, fur - 29321D/17
- ESPE 19.04.77 PARSONS ENGG A96 D21 (A14) = CA 1109-597
Dental filling of high pressure resistance - 61913A/35
- ESSE- 17.01.80 ESSEX LAAKKEET OY B02 D16 = FI 8100-078
Kijanamicin from *Actinomyces kijanici* ATCC 31588 - 62579D/35

ESSO 10.03.80 EXXON RES & ENG CO D15 H03 = US 4293-348
Removal of floating oil from water in a tank - 70387D/39
*EZAK/ 01.11.79 EZAKIN D11 *US 4292-917
Automatic cake topping dispenser - 79444D/43

*FABR 17.03.80 FABRE P SA D21 E24 *FR 2477-872
Natural colourant for use in hair colouring compsns. - 78137D/43
*FABR 17.03.80 FABRE P SA D21 E13 *FR 2477-873
5,6-Diaryl 1,2,4-triazine cpds. used as solar filters - 78138D/43
FARB 27.09.73 BAYER AG A82 D18 F08 G02 = DS 2348-662
Films and coatings from thermo-sensitised polymer dispersions - 29196W/18
FARB 09.10.74 BAYER AG A82 D18 F08 G02 (A25) = J8 1041-751
Coating leather and plastic surfaces - 32166X/18
FARB 13.05.75 BAYER AG A96 D21 (A25) = DS 2521-265
Gel bases for perfume compsns. - 88809X/48
FARB 25.06.77 BAYER AG A96 D21 (A14) = GB 1600-873
Two/part dental filling paste compsn. - 87799A/49
FARB 25.06.77 BAYER AG A96 D21 (A14) = HU T020-799
Two/part dental filling paste compsn. - 87799A/49
FARB 07.03.78 BAYER AG A88 D15 J01 (A14) = CA 1109-474
Semipermeable membranes based on acrylonitrile copolymer - 68262B/38
FARB 26.04.78 BAYER AG B02 C02 D13 E13 (D22) = EP G004-956
Imino-acetamido beta-lactam antibiotic derivs. - 79405B/44
FARB 10.08.78 BAYER AG B03 C02 D13 = US 4293-551
N-Amino-3,4,5-trihydroxy-piperidine derivs. - 15063C/09
FARB 31.03.78 HOECHST AG A92 D12 = US 4292-711
Tubular package sheath - 73767B/41
FARB 12.03.79 HOECHST AG D15 E36 = DD -149-795
Converting phosphoric acid purificn. extrn. residue to solid waste - 69851C/40
FARB 19.04.79 HOECHST AG C03 D13 = HU T020-779
Alkaloid and lipid cpd. extrn. from ground lupin - 80976C/46
FARB 04.09.79 HOECHST AG D16 J01 = ZA 8005-435
Liquid-gas reactor with better bubble coalescence - 19691D/12
FARB 07.09.79 HOECHST AG D16 = ZA 8005-502
Reducing sulphur di:oxide requirement of wine - 21798D/13
FARB 16.02.80 HOECHST AG B04 D16 = FR 2478-124
Microbiologically produced interferon poly:peptide - 64373D/36
FARB 03.03.80 HOECHST AG D25 E19 = NO 8100-698
Detergent compsn. builder combination - 68205D/38
FARB 28.03.80 HOECHST AG A97 D12 (A11 A32) = DE 3012-064
Hydrated cellulose hose with outer coating - 76063D/42
FARB 28.03.80 HOECHST AG A11 D12 (A32 A97) = EP --37-494
Cellulose hydrate tube with impermeable lining esp. for sausage skin - 75877D/42
FARB 05.04.80 HOECHST AG A97 D12 (A11) = DE 3013-320
Sausage skin made from sheet with glued seam - 78030D/43
*FARB 05.04.80 HOECHST AG A97 D12 (A11) *EP --37-543
Sausage skin made from sheet with glued seam - 78030D/43
*FARR- 28.03.80 FARRER ACTIV SLUDGE D15 *GB 2073-602
Diffuser for aerating and agitating liq. - 78236D/43
*FATR= 13.09.77 FAT RES INST D23 J01 *SU -801-861
Recovery of oil-extracting solvents from exhaust gas - 79369D/43
FEIL/ 21.09.79 FEILER H D13 = HU T020-782
Preserving perishable prods. esp. foods - 07832D/06
FEIL/ 21.09.79 FEILER H D13 = ZA 8005-824
Preserving perishable prods. esp. foods - 07832D/06
*FERM= 24.03.79 FERMENTATION PRODS D16 *SU -800-185
Glucosylase microbiological prodn. - 79122D/43
*FERM= 26.04.79 FERMENTATION PRODS D16 *SU -800-186
Molasses alcoholic fermentation slop utilisation - 79123D/43
*FERR- 20.07.78 FERROKEMIA IPARISZ D21 *HU T020-800
Hydrating and skin metabolism promoting cosmetic compsn. - D/43
FIND- 06.03.80 PROD FINDUS SA D11 = NO 8100-578
Machine to roll up pancakes, croissants, meat rolls etc. - 72061D/40
FIND- 06.03.80 PROD FINDUS SA D11 = SE 8001-770
Machine to roll up pancakes, croissants, meat rolls etc. - 72061D/40
*FINE- 07.03.79 FINETEX INC D21 E14 *US 4293-544
Sun tan oil compsn. - 79602D/43
FINN- 17.01.80 FINNPIPETTE O SUOVA B04 D16 S03 (S05) = FI 8000-140
Detection of faecal human haemoglobin specifically - 57266D/32
*FOOD= 09.04.79 FOOD IND CORRESP D16 *SU -800-189
Brandy-type spirit prodn. - 79126D/43
*FORR- 21.02.78 FORREST M INC D18 *US 4292-690
Composite fur pelt mfr. - 79414D/43
*FORR- 21.02.78 FORREST M INC D18 *US 4292-691
Composite fur garment - 79415D/43
*FOVA- 23.02.78 FOVAROSI CSATORNAZA D15 *HU T020-884
Aerator for mixing liquids - D/43
*FREQ- 11.03.80 SOC FR EQUIP COLLEC D12 *FR 2477-842
Opening oyster shells to extract oysters for treatment - 78132D/43
*FREU- 04.04.80 FREUND IND CO LTD D14 *DE 3026-367
Food preservation in vessel contg. preservation device - 77986D/43

FRRR 22.11.79 FERRERO P & CIA SPA D13 = US 4293-577
Saccharose-free caries risk-reducing diet confectionery - 40437D/23
*FURN/ 15.02.78 FURNICHENKOV V A97 D14 J01 *SU -801-849
Fine solid suspension sepn. flocculation unit - 79358D/43

*GADO/ 24.06.81 GADOTTI W D16 *BR 8103-964
Thermo-centrifugal rectifier-distiller - D/43
GENE- 05.07.79 GENENTECH INC B04 D16 = DK 8100-973
Cloning vector contg. semi-synthetic gene - 03727D/04
*GENO 04.04.80 GENERAL FOODS CORP D13 *EP --37-676
White, bland, fibrous protein prod. - 78079D/43
*GENO 09.04.80 GENERAL FOODS CORP D13 *EP --37-675
Dry, water soluble, macroporous edible particles - 78078D/43
*GHEZ/ 12.03.80 GHEZAIL F D15 *FR 2477-896
Purificn. of water by up-flow through sludge in decanter - 78142D/43
GKSS- 11.04.80 GKSS-FORSCH GEESTHA D15 = WP 8102-887
Organic cpd.-contaminated waste water purificn. - 62553D/35
*GLAS/ 09.04.80 GLASSMAN J A D22 *DE 3029-770
Sanitary tampon with deep central hollow core - 77988D/43
GLAS/ 09.04.80 GLASSMAN J A D22 = GB 2073-592
Sanitary tampon with deep central hollow core - 77988D/43
*GOOS/ 12.06.81 GOOSSENS J B R D12 X25 *BE -889-206
Automatic animal stunning machine in slaughter house - 77836D/43
GORA/ 04.10.79 GORANSON B D12 = EP --37-405
Appts. for disintegrating and mixing foodstuffs - 32554D/18
GOUP/ 19.02.76 GOUPIL J J B03 D21 = CA 1109-471
Hydrohalide salts of disubstd. piperazines - 39883Y/23
GRAC 01.02.78 GRACE W R CO B02 C02 D16 = CA 1109-406
Fermentative prodn. of monordene - 40690B/22
*GRAN/ 03.04.80 GRANTRA C03 D15 (C04 D13) *WP 8102-888
Prepn. of solid prods. from humus sludges - 79725D/43
*GRAT/ 14.03.80 GRATADOUR J P C V D21 E19 *FR 2477-871
Compsns. contg. antioxidant, organic acid, and surfactant - 78136D/43
GREC 22.01.80 GREEN CROSS CORP A96 D22 #FI 8000-175
Perfusate for preserving organs to be transplanted - 11125C/06
*GREE/ 30.04.80 GREEN A W D15 *US 4293-421
Upflow anaerobic filter surrounding septic tank - 79544D/43
*GUIT/ 29.03.79 GUITARD L D13 *FR 2477-844
Laxative chocolate prod. contg. wheat bran - 78133D/43
*GUOT/ 04.03.78 GUOTH J C03 D13 *HU T021-196
Feed supplement for vertebrate animals - D/43

HABE/ 05.04.80 HABERLP D11 = EP --37-454
Bread and pastry mfr. - 75986D/42
HAGG 16.06.77 HAG AG D13 = CA 1109-324
Decaffeinating vegetable materials esp. coffee - 76360A/43
HAGG 08.12.78 HAG AG D13 E17 = EP G012-365
Decaffeination of coffee - 46321C/27
*HAMW- 23.02.77 HAMWORTHY ENG LTD D15 *GB 1600-979
Anaerobic digestion of organic waste - 78215D/43
HARV- 17.03.80 HARVARD COLLEGE B04 D16 = FR 2478-125
Optimisation of polypeptide prodn. by microorganisms - 55162D/31
HASE 07.03.77 HASEGAWA KK D13 E24 = J8 1041-664
Natural colouring material - 78791A/44
HENK 21.12.73 HENKEL KG AUF AKTIEN A96 D21 = DS 2363-871
Hair treatment compsns. - 44395W/27
HENK 16.07.77 HENKEL KG AUF AKTIEN D18 E33 = HU T021-015
Additives for defatting and tanning in leather mfr. - 10088B/06
HENK 25.03.78 HENKEL KG AUF AKTIEN D21 E13 = DS 2960-453
Hair dyeing compsns. - 72133B/40
HENK 01.10.79 HENKEL KG AUF AKTIEN D18 E19 = ZA 8006-066
Leather and pelt impregnation and dubbing - 27629D/16
HENK 05.04.80 HENKEL KG AUF AKTIEN D25 E17 F09 J01 (F06) = BR 8102-047
Foam inhibitor for aq. system, esp. detergent compsn. - 78029D/43
*HENK 05.04.80 HENKEL KG AUF AKTIEN D25 E17 F09 J01 (F06) *EP --37-542
Foam inhibitor for aq. system, esp. detergent compsn. - 78029D/43
*HITA 21.02.80 HITACHI KK D16 E36 (D17) *J5 6116-701
Pretreatment of cellulosic material for biochemical decomposition - 78767D/43
HOFF 09.11.72 HOFFMANN-LA ROCHE AG B04 D16 = J8 1041-230
Carcinoma-embryonic antigen prodn. in-vitro - 40217V/22
HOFF 14.09.77 HOFFMANN-LA ROCHE AG D21 E16 (E13) = DS 2860-825
Cosmetic compsn. having anti-seborrhoea activity - 22379B/12
HOFF 30.01.80 HOFFMANN-LA ROCHE AG B03 C02 D16 = FI 8100-252
Antibiotics X-14868 A, B, C and D from Nocardia sp. ATCC 31585 - 56870D/31
HORI- 31.12.77 HORIBA SEISAKUSHO D15 E32 J04 M25 (S03) = J8 1041-065
Electrochemical determ. of cadmium ion concn. esp. in waste water - 65336B/36
*HORZ/ 12.04.79 HORZINEK M C B04 C03 D16 *US 4293-653
Propagation of feline infectious peritonitis (FIP virus - 79658D/43
HUBE 23.03.73 HUBER J M CORP D25 E34 #J8 1041-568
Alkali metal polysilicate - 47364U/34

*HULE/ 25.08.80 HULETT D J L D16 *ZA 8005-237
Alcohol still - D/43

ICIL 09.06.77 IMPERIAL CHEM INDS LTD A97 D25 E34 = GB 1600-981
Liquid detergent compsn. used as washing powder substitute - 89619A/50
ICIL 31.01.80 IMPERIAL CHEM INDS LTD D22 E16 F09 (D15) = FI 8100-243
Protecting aq. media from microbial fouling - 72048D/40
*ICIL 03.04.80 IMPERIAL CHEM INDS LTD D15 *EP --37-659
Waste-water treatment with oxygen under hydrostatic pressure - 78072D/43
INFL 30.06.77 INT FLAVORS & FRAGR INC D23 E17 = GB 1600-678
Subsid. oxy:acetaldehyde(s) and their acetal(s) prepn. - 83955A/46
INFL 30.05.78 INT FLAVORS & FRAGR INC D23 E19 = CA 1109-396
Diluted liq. perfume compsn. - 68152B/38
INFL 30.05.78 INT FLAVORS & FRAGR INC D23 E19 = CA 1109-397
Diluted liq. perfume compsn. - 68152B/38
INFL 30.05.78 INT FLAVORS & FRAGR INC D23 E19 = CA 1109-398
Diluted liq. perfume compsn. - 68152B/38
*INFL 24.11.78 INT FLAVORS & FRAGR INC D13 E13 *US 4293-579
Enhancing flavour of foodstuffs - 79619D/43
*INFL 16.11.79 INT FLAVORS & FRAGR INC D23 E15 *US 4293-453
Augmenting the aroma of colognes and perfumes - 79561D/43
*INME- 17.08.79 IND MED SERVICES D22 *ZA 8005-402
Wound dressing - D/43
INMR 17.03.80 INST MERIEUX B04 D16 = FR 2478-104
Partially deacylated N-acyl ganglioside(s) and glyco:lipid(s) - 72187D/40
INTE- 18.11.77 INTEROX A97 D15 E33 = US 4293-426
Polymer coated calcium peroxide particles - 47500B/26
INTE- 18.10.79 INTEROX CHEM LTD D25 E12 = ZA 8006-101
Magnesium mono:peroxy-di:carboxylate salts - 32939D/19
INTE- 01.04.80 INTEROX CHEM LTD D25 E36 = BR 8101-853
Aq. hydrogen peroxide bleach compsns. - 74330D/41
INTE- 01.04.80 INTEROX CHEM LTD D25 E19 = BR 8101-906
Stable liq. detergent compsn. contg. hydrogen peroxide - 76131D/42
*INTF 25.03.80 INST TEXTILE DE FRANCE B05 D13 E15 (D18) *EP --37-644
Augmenting aroma of foodstuffs, medicinal prods. etc. - 78067D/43
*INTT 28.02.78 INT TELEPH & TELEG CORP D11 *US 4293-572
Moisture barrier compsn. for baked or fried foods - 79616D/43
*ITEN- 07.04.80 INT ENVIRONMENT INC D15 *WP 8102-886
Disinfection of waste water with sulphur di:oxide - 79724D/43

JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 = FI 8100-296

Wood preserving and protection cpd. and antiseptic detergent compsn. - D/37

JANC 04.02.80 JANSSEN PHARMACEUT NV C03 D22 E19 F09 = FI 8100-297

Wood preserving and protection cpd. and antiseptic detergent compsn. - D/37

JENO- 04.03.80 JENOS INC D11 = SE 8101-338

Non-docked fried dough crusts prodn. - 68433D/38

JOHJ 05.01.79 JOHNSON & JOHNSON D13 #CA 1109-321

Preventing the Maillard reaction in synthetic dietary compsns. - 23907B/12

*JOHJ 16.05.80 JOHNSON & JOHNSON D22 *US 4293-367

Applying elastic strip to leg region of disposable diaper - 79517D/43

*JOUR/ 17.03.80 JOURNO C D11 *FR 2477-838

Method of packaging stacked pancakes interleaved with sepg. papers - 78130D/43

*JUNG/ 12.03.80 JUNGK P D25 E33 (E35) *DD -149-809

Aq. glass cleanser compsn. prepn. - 77872D/43

KALI 13.03.80 KALI-CHEMIE AG C03 D13 E36 (C04) = FR 2478-062

De-fluoridation of phosphoric acid - 40229D/23

KALL/ 05.03.80 KALLNIUS G B04 C03 D16 S03 = SE 8001-748

Therapeutic and diagnostic compsns. - 68337D/38

KALO- 28.01.80 KALOCSAI SUTO-ES ED D11 = FI 8100-203

Wheat bread of long storage stability prodn. - 42113D/24

KANA/ 12.11.71 KANAIM D15 = J8 1041-315

Fluorine removal from water - 66288U/44

*KANE- 15.02.80 KANEBO KESHOHIN KK D21 E19 *J5 6115-707

Cosmetic compsn. contg. peptide - 78644D/43

*KANE- 15.02.80 KANEBO KESHOHIN KK D21 E19 *J5 6115-708

Skin-protecting cosmetic - 78645D/43

KANF 12.01.74 KANEGAFUCHI CHEM KK D16 = J5 0100-281

Increasing growth rate of yeast culture - 24211W/15

KANF 12.01.74 KANEGAFUCHI CHEM KK D16 = J8 1041-229

Increasing growth rate of yeast culture - 24211W/15

KANS- 06.03.78 KANSAI DENRYOKU KK D15 L02 = J5 4118-429

Concrete mix - 78955D/43

*KANS- 06.03.78 KANSAI DENRYOKU KK D15 L02 *J8 1041-591

Concrete mix - 78955D/43

*KAOS 14.03.80 KAO SOAP KK D25 E15 *FR 2477-874

Perfume compsn. contg. methyl tri:cyclodecane carboxylate - 78139D/43

*KAOS 14.03.80 KAO SOAP KK D23 E15 (D21 D25) *FR 2478-084

Alkyl tri:cyclodecane-2-carboxylate derivs. - 78164D/43

KASH/ 01.09.79 KASHIWAYAMA S B04 D16 (D21) = ZA 8005-361

New microorganism Trichosporon Kashiwayama - 19705D/12

*KAWJ 19.02.80 KAWASAKI HEAVY IND KK D15 E36 *J5 6115-685

Detoxifying cyanide liquor abid. by absorbing hydrogen cyanide - 78636D/43

*KDPO= 27.04.79 KRASD POLY D16 *SU -800-187

Prod. of red table wine - 79124D/43

*KECS- 31.10.79 KECSKEMETI MEZO GAZD D14 *HU T020-783

Cleaning raw materials for canning - D/43

KEND 15.04.80 KENDALL CO A96 D22 F07 = GB 2073-594

Disposable nappy with upper textile layer - 62361D/35

*KIMB 11.04.80 KIMBERLY CLARK CORP D22 *GB 2073-597

Sanitary napkin with impermeable baffle below pad - 78235D/43

*KINW- 08.11.79 KINWAT PTY LTD C04 D15 J04 T06 (S02) *ZA 8005-526

Appts. for prodn. of solns. of predetermined concn. - D/43

*KOBM 16.02.80 KOBE STEEL KK D15 J01 *J5 6115-603

Pretreating raw water to be filtered - 78608D/43

*KOLT/ 07.05.76 KOLTO G D15 *HU T021-206

Accurate control of water and chemicals mixing - D/43

*KOMA- 02.04.80 KOMAROM MEGYEI TANA D15 *WP 8102-905

Pond contg. filtered water alongside polluted stream - 79738D/43

*KONZ- 06.02.80 KONZERVES PAPRIKAI D14 S02 X15 *HU T021-113

Determination and control of liquid level - D/43

*KOOL- 15.01.79 KOOLAJ-ES GAZIPARI D15 *HU T021-207

High-efficiency appts. purifying industrial aq. effluents - D/43

*KSVC- 09.04.80 KSC-CHEMICALS OY B04 D16 *EP --37-583

Fluorimetric determ. of lipase activity in serum etc. - 78037D/43

KUBA/ 17.01.80 KUBASOV V L D15 E36 J03 X25 #FI 8000-145

Electrode for electrochemical processes - 25210D/14

KUBI 27.08.77 KUBOTA KK D15 J01 = J8 1041-284

Absorption appts. for heavy metal and organic(s) removal from liq. - 32439B/17

*KURA- 14.02.80 KURASHIKI CHUO BYOIN ZH A96 D21 *J5 6116-464

Polymeric agent for removing tattoo marks on skin - 78751D/43

*KURS 14.02.80 KURARAY KK A96 D21 *J5 6116-464

Polymeric agent for removing tattoo marks on skin - 78751D/43

KURS 19.02.80 KURARAY KK A96 B04 D16 X16 (A14) = J5 6115-727

Support for immobilising antigens, enzymes etc. - 70287D/39

*KYOW 23.10.79 KYOWA HAKKO KOGYO KK B04 D16 (B02) *J5 6059-777

Antibiotic XK-213 used also as antitumoural agent - 78330D/43

*KYOW 15.02.80 KYOWA HAKKO KOGYO KK B04 D16 *J5 6115-794

Antitumour agent DC-11-A-2 - 78703D/43

KYPO= 15.04.80 KRASNOYARSK POLY B01 D23 #GB 2073-767

Purificn. of wool grease to prepare lanolin - 77052C/44

LAIT- 02.03.78 LAITERIES TRIBALLAT A97 D13 = HU T020-776

Acidulation of milk using cationic resin followed by acid - 68506B/38

*LAIT- 08.04.80 LAITERIES TRIBALLAT D13 *BE -888-269

Cheese with spices rolled in like jam in swiss roll - 77812D/43

*LAND- 03.04.80 INST LANDBOUWPRODUK C04 D16 (D15) *EP --37-612

Anaerobic decomposition of solid animal and vegetable waste - 78053D/43

LANG/ 05.06.78 LANG J L C03 D13 H09 = EP G005-703

Fuel e.g. alcohol and plant and animal nutrient - 89704B/50

*LEAT= 17.04.79 LEATHER FOOTWEAR D18 *SU -800-199

Compsn. for greasing elastic leather - 79136D/43

*LEIT/ 05.11.79 LEITGEB J D15 *HU H002-678

Truck-mounted collector-processor for liq. faeces - D/43

*LICH/ 11.04.80 LICHTMANNEGGERE D22 *DE 3013-913

Disposable nappy - 77955D/43

LIFE- 24.09.79 LIFE SAVERS INC A97 D13 = ZA 8005-472

Prepn. of sugar coated chewing gum - 15513D/09

*LIFE- 24.09.79 LIFE SAVERS INC D13 *ZA 8005-473

Sugarless coating application to chewing gum etc. - D/43

LIFE- 26.09.80 LIFE SAVERS INC D13 #ZA 8005-991

Long-lasting flavoured chewing gum prodn. - 13576D/08

*LIGG/ 01.02.80 LIGGETT J J D15 X25 *US 4293-400

Electrolytic treatment of water - 79532D/43

LICY 18.12.79 LION CORP D25 E37 (E16) = DE 3047-653

Liq. detergent compsn. - 63358D/35

*LIOY 20.02.80 LION DENTIFRICE KK A96 B05 D16 *J5 6115-712

Orally administrable compsn. e.g. dentifrice - 78648D/43

LIPP/ 05.04.80 LIPP X D16 E17 = BR 8101-883

Fermenting vessel for methane prodn. has rotary agitator shaft - 58798D/33

*LOCA= 24.04.79 LOCAL IND RES CONS D18 *SU -800-198

Treatment of raw fur pelts - 79135D/43

*LOMP/ 27.12.76 LOMTADZE B A D12 *SU -801-830

Edible fish meat stuffing production unit - 79350D/43

*LUCK- 07.03.80 LUCKE & DRUCKER GMB D12 *DE 3008-742

Food processing work table - 77882D/43

- * MACH- 12.03.80 MACHINES CHAMBON D17 *FR 2477-959
Fixing mould cleaning hammer to cam disc of sugar press - 78155D/43
- * MACL/ 08.11.77 MACLENNAN ME D12 (D16) = CA 1109-322
Mycelial meat analogues and extenders - 37610B/20
- * MAED- 25.04.80 MAGYAR EDESIPARI VA D13 *HU T020-774
Chocolate-coated cherry or morello cherry confectionery products - D/43
- * MAGA= 29.08.78 MAGARACH WINE MAKIN D16 *SU -800-188
Prodn. of brandy-type spirit - 79125D/43
- * MAGA= 08.01.79 MAGARACH WINEMAKING D16 *SU -799-707
Brown colourant for brandy and foodstuffs - 78990D/43
- * MAGY 29.05.78 MTA IZOTOP INTEZETE D15 K07 *HU T020-817
Filter for liquids, partic. radioactive aq. effluents - D/43
- * MAGY 21.12.79 MTA SZEGEDI BIOLOGI C03 D13 = HU T020-775
Improved utilisation of proteins in foods by acid treatment - 30803D/18
- * MASI 11.11.76 MASSACHUSETTS INST TECH A96 B04 C03 D16 *US 4293-654
Cell culture micro-carriers bearing charged chemical moieties - 79659D/43
- * MASI 31.03.80 MASSACHUSETTS INST TECH D12 *WP 8102-826
Pneumatically powered dog fish skinning machine - 79711D/43
- * MASZ- 05.03.80 INST MASZYN SPOZYWC D12 = HU T020-772
Meat and bone separating screw - 73786D/41
- * MAYR 23.11.79 MARYLAND CUP CORP D13 *US 4293-580
Whipped and frozen fruit or vegetable juice concentrates - 79620D/43
- * MAZN 29.02.80 MARUZEN KASEI KK B03 D13 E13 = J5 6115-797
18:alpha glycyrrhizinic acid - 62757D/35
- * MEIJ 24.12.79 MEIJI SEIKA KAISHA B03 D16 = DE 3048-421
SF-2080A substance of apparent pyrrole structure - 52156D/29
- * MELY- 15.06.79 MELYEPTERV MELYEPIT C04 D16 (D15) *HU T020-902
Aerobic and anaerobic fermenter for fertiliser prodn. - D/43
- * META- 21.07.81 METAL LEITZKE LTDA D14 *BR 8104-780
Par boiling and pre cooking machine - D/43
- * MEZE- 04.12.79 MEZEPSZER MEZOGAZDA D15 *HU T020-887
Small-scale biological purifier for waste water - D/43
- * MEZO- 01.03.79 MEZOHEGYESI MEZOGAZ D17 *HU T021-014
Adding heated molasses to sugar processing by/product paste - D/43
- * MINN 07.04.80 MINNESOTA MINING CO D22 *EP --37-677
Orthodontic bracket adhesive and abrasive for removal - 78080D/43
- * MITO 03.12.74 MITSUBISHI HEAVY IND KK D15 J01 = J8 1041-283
Preventing contamination of water treatment appts. - 55161X/29
- * MITO 14.10.77 MITSUBISHI HEAVY IND KK B01 D16 = EP G001-622
Steroidal alcohol(s) prodn. by fermentation with Mycobacterium species - 33713B/18
- * MITQ 20.12.72 MITSUBISHI ELECTRIC CORP D22 E36 = J8 1041-293
Apparatus for purification of polluted air - 26464W/16
- * MITQ 20.02.80 MITSUBISHI ELECTRIC CORP D22 J01 *J5 6115-614
Removing sulphide(s), sulphur oxide(s) and organic cpds. from air - 78616D/43
- * MITU 15.02.80 MITSUBISHI CHEM IND KK D21 E19 *J5 6115-707
Cosmetic compsn. contg. peptide - 78644D/43
- * MITU 15.02.80 MISUBISHI CHEM IND KK D21 E19 *J5 6115-708
Skin-protecting cosmetic - 78645D/43
- * MNKN 07.04.80 MINAMI NIPPON RAKUNO KYO A97 D13 *EP --37-447
Acid-resisting whipping cream powder - 78000D/43
- * MOEN= 26.12.78 MOSC ENG CONS INST D23 L02 *SU -800-158
Structural concrete mortar compsn. - 79095D/43
- * MOFA= 26.12.78 MOSC FATS RES INST D23 L02 *SU -800-158
Structural concrete mortar compsn. - 79095D/43
- * MOFO= 23.03.79 MOSC FOOD IND TECHN INST D16 *SU -800-183
Prodn. of rye malt for beer etc. mfr. - 79120D/43
- * MOFO= 16.04.79 MOSC FOOD IND TECHN D17 *SU -800-196
Soln. supersaturation coefft. determ. - 79133D/43
- * MOFO= 16.04.79 MOSC FOOD IND MECHN D11 S03 *SU -800-873
Apparatus to determine gassing of bread dough - 79329D/43
- * MOFO= 29.06.79 MOSC FOOD IND TECHN D17 *SU -800-195
Clarification of sugar soln. in sugar mfr. - 79132D/43
- * MOME= 26.03.79 MOSC MEAT DAIRY IND D14 S03 *SU -800-871
Determn. of water activity in food products - 79327D/43
- * MOOR- 03.05.79 MOORE A PTY LTD D14 *ZA 8002-598
Industrial cooking pot - D/43
- * MOPA= 06.04.79 MOSC PAEDIAT CHILD B04 D16 S03 (S05) *SU -800-878
Diagnosis of destructive process in urinary tract tissues - 79333D/43
- * MOSN 19.04.79 MOSCOW NAT ECONOMY INST D16 E36 *SU -800-190
Contaminated wine purificn. - 79127D/43
- * MULL/ 27.07.79 MULLER H D15 *DE 3027-454
Settlement tank for sewage sludge - 77987D/43
- * MULL/ 11.04.80 MULLER H D15 = WP 8102-887
Organic cpd.-contaminated waste water purificn. - 62553D/35
- * NADI 03.04.80 NATIONAL DISTILLERS CORP D16 *BR 8101-780
Continuous ethanol fermentation - D/43
- * NAGY/ 06.12.78 NAGY M D18 *HU T020-784
Cigarette filter - D/43
- * NATR 28.09.77 NATIONAL RES DEV CORP B04 C03 D16 = DS 2960-459
Increasing the immunogenicity of an antigen - 29725B/15
- * NATU- 07.06.77 NATUMIX FERTILISERS C03 D15 *GB 1600-901
Fertiliser mfr. by mixing sewage sludge with burnt lime - 78214D/43
- * NEME/ 07.04.81 NEMESKERY T C03 D13 (D16) *HU H002-668
Rearing calves to give sterile blood useful in medicine - D/43
- * NEST 20.07.78 SOC PROD NESTLE SA D13 S02 = US 4293-049
Gravimetric dispenser for ice cream container filling machine - 09506C/06
- * NEST 03.11.78 SOC PROD NESTLE SA C03 D13 = US 4293-581
Animal feed prodn. from coffee grounds - 35022C/20
- * NEST 26.01.79 SOC PROD NESTLE SA D13 = US 4293-583
Removing bitter components from protein hydrolysate - 60835C/35
- * NEST 09.03.79 SOC PROD NESTLE SA D13 = US 4293-571
Prepn. of purified protein hydrolysate for dietetic use - 62286C/36
- * NEST 12.03.80 SOC PROD NESTLE SA D13 = FR 2477-845
Moulding composite confection on ice cream etc. - 67971D/38
- * NETI- 19.11.79 N EASTERN TIMBER US D13 *US 4293-292
Candy floss machine - 79486D/43
- * NEVI= 15.04.80 NEVINNOK WOOL IND B01 D23 #GB 2073-767
Purificn. of wool grease to prepare lanolin - 77052C/44
- * NIHS 19.02.80 NIPPON SURFACTANT KK A97 D25 E19 *J5 6115-629
Emulsion compsn. of oil-poly:ol or poly:ol-oil type - 78626D/43
- * NIPS 04.07.72 NIPPON SODA KK A91 D15 H06 M25 = J8 1041-673
Heavy metal adsorbent - 01489V/01
- * NIPS 27.12.76 NIPPON SODA CO LTD B05 C03 D23 E14 = HU T020-914
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- * NISI 13.10.79 NISSHIN STEEL KK D15 J04 *J5 6056-221
Ferrous sulphate soln. dispenser for waste waters - 78323D/43
- * NISW 10.08.79 NISSHIN OIL MILLS KK D13 = US 4293-574
Mayonnaise prod. contg. soya bean protein emulsifier - 15887D/10
- * NITE- 31.10.79 NIPPON TELEVI HOSOMO KK D15 *J5 6065-683
Processing waste water contg. low nitrogen content organic matter - 78336D/43
- * NITL 31.03.80 NITTO ELECTRIC IND KK A88 B05 D15 J01 (A26 A32 D13 D16) = GB 2073-654
Selective permeable membrane from polyimide paste - 58804D/33
- * NITN 05.07.78 NIHON TOKUSHU NOYAK C01 D22 = EP G007-020
O-Poly:haloalkyl-O,S-di:alkyl phosphono:thiolate derivs. - 05746C/04
- * NMHB 15.11.79 NORDISCH MASCH R BAADER D12 = DD -149-773
Fish filleting apparatus - 40672D/23
- * NMHB 11.03.80 NORDISCHER MASCHINE D12 #FR 2477-841
Fish filleting appts. - 55133D/30
- * NONA= 23.03.79 NON ALCOHOLIC BEER D16 *SU -800-183
Prodn. of rye malt for beer etc. mfr. - 79120D/43
- * NORD 16.10.79 NORDEN LAB INC B04 C03 D16 = ZA 8005-986
Live feline infectious peritonitis virus vaccine - 31178D/18
- * NORD 31.03.80 NORDEN LAB INC B04 C03 D16 = US 4293-545
Vaccine of modified live pasteurella multocida of haemolytica - 76051D/42
- * NUCM- 29.10.79 NUC-MED INC B04 D16 K08 = DK 8004-557
Antibody labelled with technetium-99m - 34792D/20
- * NUCM- 29.10.79 NUC-MED INC B04 D16 K08 = ZA 8005-813
Antibody labelled with technetium-99m - 34792D/20
- * NYEG 09.04.80 NYEGAARD A/S B01 D16 J04 S03 (S05) *EP --37-742
Reagent for determ. of hydroxy-steroid in serum samples - 78105D/43
- * ODCI= 20.06.77 ODESS CIVIL ENG D15 J01 *SU -801-844
Hygroscopic water distillation plant - 79353D/43
- * OHIS 18.12.79 OHIO STATE UNIV B04 C03 D16 = ZA 8007-876
Vaccines against feline leukaemia - 48063D/27
- * OHTA- 31.01.79 OHTAKE WORKS CO D16 S03 *US 4293-643
Rotary appts. for shaking culture - 79652D/43
- * OREA 13.11.75 L'OREAL SA A96 D21 (A26) = SE 8103-572
Polymers contg. quat. ammonium groups - 34501Y/20
- * OREA 03.05.76 L'OREAL SA D13 E13 = US 4293-542
Cosmetics contg. amino-pyridine (N)-oxide derivs. - 85028Y/48
- * OREA 12.07.78 L'OREAL SA D21 S03 S05 = CA 1109-375
Assessing surface oxidn. of keratin fibres - 06066C/04
- * OREA 01.04.80 L'OREAL SA A96 D21 G02 (A14) = BR 8101-928
Nail varnish compsn. contg. copolymer - 75734D/42
- * OREA 02.04.80 L'OREAL SA D21 = BR 8101-965
Coffee oil for use as solar filtering agent - 75741D/42
- * ORLO/ 21.08.78 ORLOV LM D15 J01 *SU -801-873
Sorbent for removal of oil from steam condensate - 79379D/43
- * ORSZ- 28.03.80 ORSZAGOS ERC ASVANY D15 *HU T020-824
Complex mineral composites for clarifying liquids - D/43
- * ORTO= 28.04.79 ORTO ERSTC CHEM COMBINE D21 *SU -799-758
Cosmetic skin cream compsn. - 78995D/43
- * OXFA- 03.04.80 OXFAM C03 D15 (C04 D13) *WP 8102-888
Prepn. of solid prods. from humus sludges - 79725D/43
- * OZAW/ 08.04.80 OZAWA J A88 D15 J01 #DE 3013-897
Mfg. reverse osmosis membrane - 68769C/39

OZOD-

OZOD-11.04.80 OZODYNE INC D15 #GB 2073-727
Treatment of waste water with ozone - 58564C/33

- *PANY/ 30.05.78 PANYUSHKIN YU A D13 J04 S03 *SU -801-878
Organic material nitrogen content estimation - 79384D/43
- *PAPA- 07.02.80 PAPAI HUSKOMBINAT D13 *HU T020-773
Marinating compsn. - D/43
- PERF- 05.03.80 PERFORA A/S D13 = NO 8100-712
Battery moulds in cheese mfr. - D/43
- *PERF- 05.03.80 PERFORA ROSSEN H AS D13 *SE 8101-310
Battery moulds in cheese mfr. - D/43
- PERB 21.01.80 PERSONAL PRODUCTS CO A96 D21 (A11 A14) = DK 8100-253
Absorbent compsn. consisting of hydrocolloid - 55586D/31
- *PEST- 03.11.79 PEST MEGYEI TERVEZO D15 *HU T020-903
Rotary drum composting appts. - D/43
- PFIZ 12.11.76 PFIZER INC D23 E13 (D13) = CA 1109-478
Gamma pyrone(s) esp. maltol and ethyl maltol prepn. - 34952A/20
- PFIZ 28.09.79 PFIZER INC D16 E17 = ZA 8005-980
Fermentative prodn. of 2,5-di:keto-gluconic acid - 25774D/15
- PFIZ 21.01.80 PFIZER INC B05 D16 E16 = DK 8004-957
2-Keto-L-gulonic acid prodn. - 07732D/05
- PFIZ 21.01.80 PFIZER INC B05 D13 E19 = DK 8100-245
L-Aspartyl-D-amino acid di:peptide amide(s) - 66370D/37
- PFIZ 21.01.80 PFIZER INC B05 D13 E19 = FI 8100-148
L-Aspartyl-D-amino acid di:peptide amide(s) - 66370D/37
- PIHL 13.05.75 PILKINGTON BROS LTD A96 D22 L01 (D21) = CA 1109-579
Bandage stiffener for splints - 90931X/49
- PIKE/ 11.10.79 PIKE BR D16 S03 (S05) = ZA 8006-109
Culture strip for medical samples - 31073D/18
- PLAK/ 31.01.77 PLAKAS C J B04 D16 H04 S03 = GB 1601-031
Determining bacterial concn. by luminescence - 57199A/32
- PLAK/ 31.01.77 PLAKAS C J B04 D16 H04 S03 = GB 1601-032
Determining bacterial concn. by luminescence - 57199A/32
- *PLAN= 29.05.79 PLANT PROTECT RES C03 D13 *SU -801-827
Nutrient for breeding Harmonia axyridis Pall insects - 79347D/43
- POLA 04.11.70 POLAK'S FRUTAL WORKS INC D23 E15 = J8 1041-609
2-alkyl-3-subst-cyclopentanoes - 32772T/21
- POLA 06.04.72 POLAK'S FRUTAL WORKS INC D23 E17 (D13) = J8 1041-630
Mercaptoalcohols and esters - 64260U/43
- *POLI- 20.07.78 POLITUR VEGYIBARI SZOVET D21 *HU T020-800
Hydrating and skin metabolism promoting cosmetic compsn. - D/43
- *POLI- 20.07.78 POLITUR VEGYIPARI SZOVET D21 *HU T020-800
Hydrating and skin metabolism promoting cosmetic compsn. - D/43
- *POSE/ 31.08.73 POSEVITZ V C03 D13 *HU T021-191
Animal feed mixt. with additives - D/43
- *POST- 09.04.80 POSTMEIER K MASCH G D11 *DE 3013-590
Dough kneading machine - 77914D/43
- *POST/ 08.04.80 POSTADEK H D11 *DE 3013-476
Creme applicator for wafers - 77906D/43
- RAAT/ 25.01.80 RAATZ G J D13 = DK 8100-322
Onion peeler - 59006D/33
- RAIS 21.01.80 RALSTON PURINA CO C03 D13 = DK 8100-244
Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
- RAIS 21.01.80 RALSTON PURINA CO C03 D13 = FI 8003-383
Dry, expanded, extruded fibrous feed for domestic animals e.g. dogs - 40243D/23
- RAIS 11.06.80 RALSTON PURINA CO D13 = BE -889-178
Soy protein of low solubility - 56840D/31
- *REGC 07.04.80 UNIV OF CALIFORNIA B04 D16 *EP --37-723
Cloned DNA segments for expression in eucaryotic cells - 78097D/43
- RHON 03.06.77 RHONE-POULENC INDUSTRIES D25 E33 = GB 1601-040
Type 4A aluminosilicate prepn., esp. as detergent additive - 87857A/49
- RHON 01.07.77 RHONE-POULENC INDUSTRIES D13 = CA 1109-317
Drying process for heat sensitive feedstuffs - 05449B/03
- RHON 07.10.77 RHONE-POULENC INDUSTRIES B03 C02 D16 = US 4293-650
Antibiotic 37454 RP for control of coccidiosis - 30048B/16
- RHON 09.06.78 RHONE-POULENC INDUSTRIES A14 D15 = EP G006-777
Organic, partic. acrylic polymer prepn. - 03914C/03
- RHON 10.08.78 RHONE-POULENC INDUSTRIES C03 D13 #CA 1109-318
Agglomerated mineral supplement for animals - 68928A/39
- *RHON 24.03.80 RHONE-POULENC INDUSTRIES D11 *EP --37-753
Powdered compsn. contg. sucro-glyceride, caseinate and malto:dextrin - 78111D/43
- *RIKA 18.02.80 RIKAGAKU KENKYUSHO B04 D16 *J5 6115-796
Oligosaccharide C - 78705D/43
- *RIKA 19.02.80 RIKAGAKU KENKYUSHO B04 D16 *J5 6115-795
Antibiotic muco:peptin B - 78704D/43
- ROHG 02.03.77 ROHM GMBH D18 (D15) = US 4293-647
Dissolving collagen-contg. waste of leather mfr. - 65497A/37
- ROHM 24.08.79 ROHM & HAAS CO A97 D18 = ZA 8005-251
Two-stage tanning of leather - 19772D/12

- ROLN- 31.03.77 AKAD ROLNICZO-TECHN D13 (D12) = HU T020-986
Heat-stable texturised milk protein meat substitute prepn. - 73140A/41
- ROQF 17.10.79 ROQUETTE FRERES SA B07 D13 = EP --37-407
Hard dragee production using sorbitol to replace sugar - 30821D/18
- ROUS 30.08.79 ROUSSEL UCLAF A97 B07 C03 D16 = ZA 8005-240
Stable microcapsule powder or suspension with variable porosity - 19571D/12
- ROUS 01.02.80 ROUSSEL UCLAF B04 D16 = FI 8100-174
Recovering peptide and phospho-peptide from casein materials - 60791D/34
- ROUS 01.02.80 ROUSSEL UCLAF B04 D13 = FI 8100-175
Phospho:peptide prodn. from caseinate - 62670D/35
- *SACH- 12.04.80 SACHS SYSTEMTECH GM D15 X25 *DE 3014-082
Water sterilisation appliance - 77960D/43
- *SACH- 12.04.80 SACHS SYSTEMTECH GM D15 X25 *DE 3014-130
Water sterilisation appliance based on anodic oxidation - 77967D/43
- SALE/ 24.01.79 SALETE-GARCES F D13 = US 4292-890
Rice grain polishing machine - 57115C/33
- SANE 28.04.78 SAN EICHEM IND KK D13 E24 = J8 1041-665
High purity paprika pigment prodn. - 90385B/50
- SANE 18.07.78 SAN EICHEM IND KK D13 E24 = J8 1041-666
Colour stable, anthocyan colourant compsn. - 19056C/11
- SANK- 27.12.76 SANKO CHEM CO LTD B05 C03 D23 E14 = HU T020-914
Oxidn. of alkoxy-toluene cpds. to aldehyde and alcohol - 50047A/28
- *SANY 07.04.80 SANKYO KK B04 D16 (B02) *EP --37-736
Antibiotic mycoplanecin derivs. prepn. - 78102D/43
- SANY 08.04.80 SANKYO KK B05 D16 = BE -888-332
Carboxylic acids, salts and ester(s) of ML-236 and MB-530 - 76364D/42
- SAOK 30.01.79 SANYO KOKUSAKU PULP B07 D13 E02 (D21) = J8 1041-667
Carmine colouring compsn. - 66769C/38
- SCHD 17.01.80 SCHERING AG B02 D16 = DK 8100-125
Kijanimicin from Actinomadura kijaniata ATCC 31588 - 62579D/35
- *SCHD 10.04.80 SCHERING AG D15 *DE 3013-881
Waste water aeration in equaliser and storage basins - 77951D/43
- SCHM/ 18.01.77 SCHMIDT M D11 = GB 1600-551
Waffle filled with honey and corresp. honey depositor - 35000A/20
- SCHW- 22.12.77 SCHWEIZER LCO GMBH D18 = EP G002-739
Continuous leather drying press - 49248B/27
- SCMZ 05.06.78 SCM CORP D13 = CA 1109-327
Compsn. contg. confectionery hard butter - 89838B/50
- *SEAR 05.04.79 SEARLE G D & CO B05 D16 E14 (D13) *US 4293-648
Enzymatic esterification of alpha-L-aspartyl-L-phenylalanine - 79654D/43
- SEAW/ 06.09.79 SEAWELL A C B04 C03 D16 = ZA 8005-505
Preventing and treating Chlamydia psittaci infections - 25990D/15
- *SECH/ 11.04.80 SECHER DS B04 D16 S03 *WP 8102-899
Mono-clonal antibody having specificity to interferon-alpha - 79733D/43
- *SEKI- 20.02.80 SEKITAN GIJUTSU KENKYUSH D15 J01 *J5 6115-608
Continuously operating filter for aq. effluent - 78612D/43
- *SEKI- 20.02.80 SEKITAN GIJUTSU KENKYUSH D15 J01 *J5 6115-609
Filter for treatment of sewage etc. - 78613D/43
- SHEL 04.10.71 SHELL INT RES MIJ BV D25 E16 = DS 2248-308
Monoalkylolamides of alpha alkyl branched carboxylic acids - 23360U/17
- SHEL 22.05.72 SHELL INT RES MIJ BV C02 D16 = J4 9054-588
Fermentative prodn of brefeldin -a - 76594U/50
- SHEL 22.05.72 SHELL INT RES MIJ BV C02 D16 = J8 1041-232
Fermentative prodn of brefeldin -a - 76594U/50
- SHEL 30.11.76 SHELL INT RES MIJ BV D25 E12 = HU T021-217
Sec. mono:alkyl sulphuric acid salts, useful detergents - 38493A/22
- SHIM- 12.06.78 SHIMOSE SHOKUHHN KK D12 = CA 1109-326
Fish meal prodn. with recovery of all usable constituents - 91320B/51
- *SHIS 21.02.80 SHISEIDO KK D24 E17 *J5 6116-800
Transparent soap prepn. - 78837D/43
- *SHMC 31.10.79 SHIMIZU CONSTRUCTION D15 *J5 6065-683
Processing waste water contg. low nitrogen content organic matter - 78336D/43
- *SIMP- 09.06.80 SIMPLOT J R CO D13 *US 4293-582
Potato dough for extrusion and forming - 79621D/43
- SLAW- 28.08.79 ST LAWRENCE TECH LT D17 = ZA 8005-264
Continuous prodn. of modified liquid carbohydrate - 02046D/03
- SMAL/ 02.07.79 SMALL S H D15 = DK 8100-931
Waste disposal appts. for vacuum sewer system - 09729D/06
- SMIK 16.10.79 SMITHKLINE CORP B04 D16 = ZA 8005-849
Recombined type/A influenza virus for vaccine prodn. - 31136D/18
- *SMIK 04.04.80 SMITH KLINE-RIT B04 C03 D16 *EP --37-522
Crosslinked Escherichia coli thermostable enterotoxin derivs. - 78020D/43
- *SMIK 24.07.80 SMITHKLINE CORP B05 D16 *US 4293-546
Anthra:cycline antibiotic fragilomycin A - 79603D/43
- *SMIT/ 26.04.76 SMITH K O A96 B04 D16 S03 (S05) *US 4292-920
Magnetic transfer device for solid phase immunoassay particles - 79446D/43
- SNAM 03.12.75 SNAMPROGETTI SPA D15 H03 = HU T020-883
Biological treatment of oil pollution in sea water etc. - 39853Y/23

- SNAM 22.03.77 SNAMPROGETTI SPA A96 B07 D22 F01 (B04) = DS 2812-174
 Biocompatible fibres contg. anticoagulant or antithrombotic - 68925A/39
- SNKM 31.12.79 SANKIN IND CO LTD A96 B05 D21 S03 (S05) = DE 3048-705
 Compsns. for dental caries diagnosis - 50222D/28
- *SOLA- 31.03.80 SOLARGIZER INT INC D16 *WP 8102-898
 Prodn. of cultures and metabolites - 79732D/43
- SOLB 27.09.79 SOLCO BASEL AG B06 D21 E33 = ZA 8005-990
 Formulation for topical treatment of skin abnormalities e.g. warts - 27670D/16
- SOLL- 03.06.77 SOLLICH SPEZIALM KG D13 = GB 1600-536
 Sugar coating machine - 89901A/50
- *SOLO/ 13.12.79 SOLOMON RW D12 *ZA 8101-594
 Meat extraction from crustacean legs - 79759D/43
- *SOYU= 28.04.79 SOYUZBYTKHIM PERFUM D21 *SU -799-758
 Cosmetic skin cream compsn. - 78995D/43
- SPET- 05.04.78 ST PETERS RES TRUST A96 B04 D13 J04 (D15 D16 S03 S05) = US 4293-307
 Helically grooved cylinder for analysis of liquids - 75721B/42
- SQUI 04.08.72 SQUIBB E R & SONS INC B02 C02 D22 = J5 6115-766
 Cyano-methylthio-acetamido-cephalosporanic acids - 11360V/07
- *SQUI 09.07.80 SQUIBB E R & SONS INC A96 D22 (A11) *US 4292-972
 Haemostatic, adhesive, bio-absorbable hydrocolloid foam sponge - 79450D/43
- *STAR= 10.04.79 STARCH PRODUCTS RES D17 *SU -800-197
 Potato or corn paste starch washing off unit - 79134D/43
- STER 12.09.79 STERLING DRUG INC D15 E36 = ZA 8005-649
 Waste treatment with ozone disinfection - 25216D/14
- *STKA- 16.02.80 ST KAGAKU KOGYO KK A96 C03 D22 (A97) *J5 6115-377
 Volatile dispersant comprises thermoplastic elastomer - 78581D/43
- STOE- 19.01.79 STOELTING INC D14 = CA 1109-281
 Frozen sweets dispenser - 55453C/32
- *STON/ 31.03.80 STONE E W D12 *US 4293-578
 Storage of shrimp before processing - 79618D/43
- STRK 11.05.79 STORK PMT BV D12 = US 4292-709
 Plucking element for stripping feathers from fowl carcasses - 85623C/48
- STUS/ 10.11.77 STUSSI W E D13 = CA 1109-323
 Filling containers with fruit on top yogurt - 40944B/22
- *SUMB 18.02.80 SUMITOMO BAKELITE KK A88 D15 J01 (A26) *J5 6115-602
 Polysulphone sepn. membrane - 78607D/43
- *SUMH 20.02.80 SUMITOMO HEAVY IND D15 J01 *J5 6115-608
 Continuously operating filter for aq. effluent - 78612D/43
- SUMO 26.07.72 SUMITOMO CHEMICAL KK A91 D15 (A21) = J8 1041-645
 Heavy metals from waste water removing agents - 73424V/42
- SUMO 18.09.72 SUMITOMO CHEMICAL KK A91 D15 = J8 1041-646
 Waste-waters heavy metals removing adsorbent - 08095W/05
- SUMO 25.01.80 SUMITOMO CHEMICAL KK A88 D15 J01 = DK 8100-318
 Tubular semipermeable membrane element - 58993D/33
- *SUMO 04.04.80 SUMITOMO CHEMICAL KK D16 *EP --37-667
 Immobilised lactase from aspergillus oryzae - 78075D/43
- SUNC- 30.01.78 SUNCOR INC A97 D15 H01 J01 #CA 1109-408
 Flocculation of colloidal sludge suspensions from tar sands - 15922C/09
- *SUNH 20.02.80 SUNDSTRAND CORP D15 J01 *J5 6115-609
 Filter for treatment of sewage etc. - 78613D/43
- SUTU 09.06.71 SUTURES INC A23 D22 F01 = J4 8014-798
 Hydrolysable copolymers - 72276T/45
- SUTU 09.06.71 SUTURES INC A23 D22 F01 = J8 1041-249
 Hydrolysable copolymers - 72276T/45
- SVEN/ 20.11.79 SVENSSON T D15 X25 = NO 8102-444
 Sludge robot for removing sludge from sedimentation tanks - 44035D/24
- SYND- 24.01.79 SYND NAT FAB SUCRE D17 (D15) = US 4293-412
 Plant to purify sugar refinery effluent and produce methane - 57382C/33
- *SYST- 20.04.79 SYSTEMS CONSULTANTS A11 C03 D12 J01 (D13 D15) *US 4293-098
 Recovery of chitin from shellfish wastes - 79466D/43
- SYST- 23.01.80 SYSTEMATE BV D12 = DK 8100-274
 Poultry jointing appts. - 59005D/33
- *SZAL/ 01.07.76 SZALKAI S D15 *HU T020-733
 Processing liquid manure - D/43
- *SZEN- 19.01.79 SZENTENDREI VAS KAZ D15 *HU T020-818
 Appts. for purifying raw or contaminated water - D/43
- *SZOL- 03.12.79 SZOLESZETI ES BORAS D13 *HU T021-012
 Herb-extract concentrate for soft drink prodn. - D/43
- *SZOL- 08.05.80 SZOLESZETI ES BORAS D16 E31 *HU T021-013
 Wine stabilisation - D/43
- TAKA/ 04.10.73 TAKAISHIK D17 E13 = J8 1041-638
 Oligosaccharides prepn. - 76377W/46
- TAKE 09.07.73 TAKEDA CHEMICAL IND KK B04 D16 = J8 1041-235
 3'-and 5-phosphoric acid esters of xylostasine - 08506W/05
- TAKE 17.07.73 TAKEDA CHEMICAL IND KK B02 D16 = J8 1041-237
 Macrolide antibiotic prepn - 54752W/33
- TAKE 17.02.77 TAKEDA YAKUHIN KOGY B02 D22 = GB 1601-028
 Broad spectrum antibacterial cephalosporin cpds. - 62114A/35
- *TAKG 15.02.80 TAKI KAGAKU KK A97 D15 J01 (A14) *J5 6115-694
 Water treating agent esp. for dewatering sludge - 78638D/43
- *TANI- 19.02.80 TANII KOGYO KK D15 J01 *J5 6115-606
 Appts. for sepg. liq. e.g. muddy water - 78611D/43
- TEEP 02.04.80 TEE PAK INC D12 = BR 8101-982
 Shirring sausage casings by typically 6 radial wheels - 76150D/42
- *TEEP 07.04.80 TEE PAK INC A97 D12 *EP --37-661
 Viscose coating of tubular fibrous sausage casing - 78073D/43
- TEEP- 02.04.80 TEEPAK INC D12 = GB 2073-575
 Shirring sausage casings by typically 6 radial wheels - 76150D/42
- *TEPR- 24.03.80 CENT RECH DEV TEPR A D16 S03 *GB 2073-882
 Measuring colloidal stability of nutritional liquids - 78309D/43
- TETR 05.04.78 TETRA PAK INT AB D22 = CA 1109-226
 Packaging strip sterilising device - 75582B/42
- THET- 11.11.77 THETFORD CORP D15 = GB 1601-036
 Bacteriological closed loop toilet waste system - 40979B/22
- *THME 14.05.80 THERMO ELECTRON CORP D15 E31 J01 M25 *US 4293-527
 Extraction of uranium from sea water - 79594D/43
- *THOE 02.04.80 THORN CASCADE LTD D15 W05 *EP --37-670
 Bottled water carbonating unit - 78076D/43
- *TIBI- 12.03.80 TIBILETTI SA D14 *FR 2478-272
 Multi-fuel adaptable hearth for oven to cook food prods. - 78184D/43
- TKEN 13.07.76 TAKENAKA KOMUTEN KK D15 = J5 3009-045
 Sludge precipitator - 78932D/43
- *TKEN 13.07.76 TAKENAKA KOMUTEN KK D15 *J8 1041-286
 Sludge precipitator - 78932D/43
- TKRD- 20.10.79 TKR DRITTE TABAK GM D18 E16 = ZA 8006-235
 Tobacco additive for reducing amt. of harmful substances in smoke - 30816D/18
- *TOKE 16.02.80 TOKYO SHIBAURA ELEC LTD D22 J01 *J5 6115-617
 Purificn. of malodorous gas contg. hydrogen sulphide - 78617D/43
- *TOKE 16.02.80 TOKYO SHIBAURA ELEC LTD D22 J01 *J5 6115-618
 Cleaning malodorous gas contg. hydrogen sulphide - 78618D/43
- *TOKE 16.02.80 TOKYO SHIBAURA ELEC LTD D22 J01 *J5 6115-619
 Decolourising and deodorising gas - 78619D/43
- TOWN 25.05.79 TOWNSEND ENG CO D12 = US 4292-889
 Injecting fluid esp. brine into meat and fish for curing - 69605C/40
- *TOWN 19.11.79 TOWNSEND ENG CO D12 *US 4292-710
 Membrane skinning machine - 79417D/43
- *UEBE/ 14.03.80 UEBERALL P D15 *DE 3010-365
 Portable settling tank - 77885D/43
- UHDE 13.03.80 UHDE F GMBH C03 D13 E36 (C04) = FR 2478-062
 De-fluoridation of phosphoric acid - 40229D/23
- UNIC 30.03.70 UNION CARBIDE CORP D12 = DS 2114-903
 Stuffing machine for foodstuff cases - 72787S/46
- UNIC 14.12.70 UNION CARBIDE CORP D15 = J4 7012-488
 Effluent water treatment - 40632T/25
- UNIC 14.12.70 UNION CARBIDE CORP D15 = J8 1041-319
 Effluent water treatment - 40632T/25
- UNIC 13.05.76 UNION CARBIDE CORP D12 = FI 8101-235
 Tubular cellulosic food wrapper esp. for large sausages - 82898Y/47
- UNIC 13.03.80 UNION CARBIDE CORP D12 = FR 2477-840
 Large dia. tubular cellulosic food casing - 71769D/40
- UNIL 06.10.76 UNILEVER LTD D13 = CA 1109-319
 Ice cream compsn. contg. caroub and/or tara gum - 25249A/14
- UNIL 06.05.77 UNILEVER LTD D25 E12 = CA 1109-355
 Isotropic aq. liq. compsn. for washing textiles - 82553A/46
- UNIL 25.05.77 UNILEVER NV D24 E32 = GB 1600-993
 Detergent compsn. contg. titanium or zirconium peroxy cpds. - 86096A/48
- *UNIL 15.05.78 UNILEVER LTD D25 E17 (D13) *CA 1109-485
 High purity carboxy-methyl-oxy-succinic acid prodn. - 77846D/43
- *UNIL 13.03.80 UNILEVER NV D25 E34 *FR 2478-123
 Dishwashing compsn. contg. sodium tri:phosphate - 78171D/43
- *UNIL 11.04.80 UNILEVER NV D21 E37 (D25) *GB 2073-768
 Detergent bar contg. halite ion source - 78281D/43
- UNIS- 02.04.80 UNISCOPE INC D22 E36 = WP 8102-891
 Suppressing ammoniacal odour from animal excrement - 60456D/34
- UNVO 02.08.76 UOP INC D17 (D13) = HU T020-987
 Monosaccharides sepn. from oligosaccharides - 90082Y/51
- *UNVO 05.11.79 UOP INC A91 D17 J01 *US 4293-346
 Simulated countercurrent sorption process - 79509D/43
- UPJO 03.01.72 UPJOHN CO B03 D22 (D16) = J8 1041-238
 7-o-demethylcelesticetine derivs - 45992U/33
- UPJO 08.08.72 UPJOHN CO B03 D16 = J8 1041-240
 Biosynthesis of lincomycin - 16826V/09
- UPJO 28.08.72 UPJOHN CO B04 D16 = J8 1041-231
 Antibiotic steffimycin B - 19360V/10
- UPJO 25.07.73 UPJOHN CO B03 D16 #J8 1041-239
 Antibiotic N-demethylcelesticetine derivs. - 41464V/22
- UPJO 01.03.76 UPJOHN CO B04 D16 (B01) = US 4293-645
 Mutant microorganisms for selectively degrading steroid(s) - 61895B/34
- *UPJO 22.10.76 UPJOHN CO B01 D16 *US 4293-644
 Androst-4-ene-3,17-dione prodn. - 79653D/43
- UPJO 07.08.78 UPJOHN CO B04 D16 = US 4293-646
 Mycobacterium fortuitum mutant strains - 15155C/09

UPJO

- *UPJO 02.10.79 UPJOHN CO B04 D16 F06 (D22 F09) *US 4293-651
Antibiotic U-59760 prepn. - 79656D/43
- *URAL= 21.03.79 URALS HEAT TECHN D15 J04 S03 *SU -800-840
Scale formation research appts. - 79314D/43
- URAN- 12.11.75 URANERZBERGBAU GMBH D15 J01 K05 M25 =DS 2550-751
Solids extrn. from liqs., by adsorption - 38249Y/22
- *USAS 21.05.79 NAT AERO & SPACE ADMIN D15 J04 S03 *US 4293-522
Oxidn. cell for oxidising organic carbon in aq. soln. - 79591D/43
- *USSU= 13.09.77 USSURIISK OIL FATS D23 J01 *SU -801-861
Recovery of oil-extracting solvents from exhaust gas - 79369D/43
- UYPA- 29.10.79 UNIVERSITY PATENTS B04 D16 K08 =DK 8004-557
Antibody labelled with technetium-99m - 34792D/20
- UYPA- 29.10.79 UNIVERSITY PATENTS B04 D16 K08 =ZA 8005-813
Antibody labelled with technetium-99m - 34792D/20

- *VAJD/ 08.02.80 VAJDA G D13 *HU T020-777
Honey-contg. food product - D/43
- YANG/ 11.02.80 VANGEDAL-NIELSEN E A97 D13 #ZA 8000-780
Disposable tea-bag with choice of tea filling for consumer - 23758C/14
- VEGY- 29.03.79 VEGYTERV VEGYIMUVEKET TE D15 J01 =HU T020-891
Purificn. of impure effluent streams - 71816C/41
- VIKI 29.03.79 VILLAMOSENERGIAIPARI KI D15 J01 =HU T020-891
Purificn. of impure effluent streams - 71816C/41
- *VIZG- 23.01.80 VIZGAZDALKODASI TUD C04 D15 *HU T020-886
Processing liq. manure from farmyards - D/43
- *VNOR/ 14.04.80 VON NORDENSKJOLD R D15 *DE 3014-169
Floating air compressor - 77972D/43

- WARN 04.10.79 WARNER-LAMBERT CO D13 =ZA 8006-065
Chewing gum with improved sweetness stability - 29417D/17
- *WASS- 10.03.80 INST WASSERWIRTSCH D15 U11 *DD -149-799
Ultra-pure water prepn. in laboratory - 77865D/43
- WEST- 21.09.79 WEST AGRO-CHEMICAL C03 D22 E36 =ZA 8005-544
Stable dilute iodine germicidal compsns. - 23407D/14
- WEST/ 13.05.77 WEST C W D14 =CA 1109-329
Closed-circuit smoke generator for smoking food - 84349A/47
- *WHIT/ 15.04.80 WHITLOCK G D D16 S03 *GB 2073-885
Detecting live organisms in materials - 78311D/43
- *WILL- 22.07.77 WILLETT T & CO LTD D15 *GB 1600-749
Liq. dispensing system for water treatment - 78203D/43
- WILL/ 22.01.80 WILLSEY C H D13 =DK 8100-089
Egg breaking and contents separating machine - 55584D/31
- *WISC 30.03.79 WISCONSIN ALU RES FOUND D13 *US 4293-573
Prepn. of frozen yoghurt contg. acid whey - 79617D/43

- *YAKI/ 12.10.77 YAKIMISCHAK D D13 *CA 1109-320
Attractively flavoured chewing gum candy - 77842D/43
- YAMA 26.07.76 YAMANOUCHI PHARM KK B02 D16 =SU -799-668
(7)-Methoxy cephalosporins fermentative prodn. - 29215Y/17
- YELO 28.04.78 YELLOW SPRINGS INST INC B04 D16 =CA 1109-374
Activated galactose oxidase enzyme - 67571C/38

- ZAID 14.03.80 ZH BISEIBUTSU KAGAKU KEN B03 C02 D16 =FR 2478-096
Ebelactone A and B obtd. from Streptomyces species - 70402D/39
- *ZETT/ 27.03.80 ZETTERMANN A D14 *BR 8002-033
Domestic ice cream maker - D/43
- ZYLK/ 31.03.80 ZYLKA K R A88 D14 =WP 8102-845
Filter sock for milk pipeline system - 77675D/42

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CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

**FOOD
DETERGENTS**

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WEEK D44
16 DECEMBER 81
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ABSTRACTS

INDEXES

II - PATENTEE

V - ACCESSION NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	12 OCT - 18 OCT 81	888,357 - 888,465
-Non Delayed	16 OCT 81	889,232 - 889,310
BRAZIL	13 OCT 81	8,001,421 - 8,102,225
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		149,841 - 149,987
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-DAS	22 OCT 81	1,567,851 - 2,816,104
-PS	22 OCT 81	2,850,775
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-Unexamined	21 OCT 81	37,810 - 38,322
-Granted	21 OCT 81	00,045 - 21,465
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UNITED STATES		
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-Patents	13 OCT 81	4,293,957 - 4,295,226

*Includes numbered Basics from Weeks D35 (CPI) and D36



Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	Patent No	IPC
MEDA-				A89			69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for seph. of very small samples of body fluids (SE28.7.75)										
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)										
804 J03 R16 (22.06.76) *FR2256-410 G01n-27/26										

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

VERS/ ★ D11 79773 D/44 ★ BE -889-239
Deep-freezing of foodstuffs, esp. pancakes - with cooling of solid component before adding liq. component

VERSTRAETEN D 16.06.81-BE-889239
(16.10.81) A231

16.06.81 as 889239 (367JB)

Deep-freezing of foodstuffs comprising a solid or dough-like component and a component which is substantially liq. at the cooking temp. (esp. pancakes) is carried out by (a) cooling the solid component to a temp. such that the liq. component will solidify on contact with it, (b) adding the liq. component, and (c) deep-freezing the prod.

The liq. component is pref. a sauce comprising a fruit juice concentrate, sugar and an alcoholic liqueur. Solidification of the sauce can be promoted by adding a binder, esp. cold-soluble gelatin as described in BE 793847, in an amt. such that the sauce is only liq. above room temp. The solid component (pancake base) is pref. deep-frozen before adding the sauce.

The process prevents the liq. component (e.g. sauce) from soaking into the solid component before freezing. (11pp)

REIM- ★ D11 79926 D/44 ★ DE 3014-741
Liquid esp. liquid fat admixed with powder - by atomising liquid transversely into fluidised bed esp. with turbulence

REIMELT D KG 17.04.80-DE-014741

J02 (22.10.81) A21c-01/14 B01f-03/12 B01f-13/02

17.04.80 as 014741 (236DH)

Method of admixing a liquid to a powder, esp for adding liquid fat or grease to a flour or powdery mixture, consists of blowing the atomised liquid into the powder while the powder is thoroughly pneumatically mixed.

In a preferred arrangement, the liquid is sprayed in transversely to the air flow which maintains the powder in a mixed condition. Turbulence may be produced at the mixing point. The blowing in of the liquid may commence after the pneumatic mixing has started.

A pneumatic mixer consists of a fluidised bed with bottom air inlet grille (14); at a vertical distance above this bottom grille, nozzles (32) spray in the atomised liquid.

Used for mixing fatty or greasy substances with a powder, in the foodstuffs, chemical and plastics industries. Mixing is carried out with less energy consumption, and less heat production than prior art systems. (12pp)

BENC ★ D11 79929 D/44 ★ DE 3014-773
Durum- and soft wheat-contg. noodle improvement - by adding small ortho-phosphate and di-phosphate mixt. proportion to dough

BENCKISER-KNAPSACK 17.04.80-DE-014773

(22.10.81) A231-01/16

17.04.80 as 014773 (200)

Noodle dough and noodles contg. durum and soft wheat contain pref. 0.1-1 (0.3-0.5) wt.% added ortho-phosphates (IA) and di-phosphates (IB). (IA):(IB) ratio is esp. 8:2 to 9.5:0.5 (9:1). The phosphates are esp. K_2HPO_4 and Na diphosphate. Soft wheat content in dough can be up to 50 wt.%. Phosphate activity can be further enhanced by adding emulsifiers, natural protein and ascorbic acid.

Phosphate addn. improves noodle cooking and consumption properties and the rheological properties of the dough. Soft wheat proportion can be increased without lowering quality. E.g. the quality of 50:50 durum- and soft wheat-contg. noodles contg. phosphates can approach that of 70:30 durum- and soft wheat mixt. without phosphate addn. (10pp)

MODE/ ★ D11 80021 D/44 ★ EP -37-972
Packaged bread pasteurisation - with light beam barrier detecting not inflated foil bags

MODERSOHN E 10.04.80-DE-013875

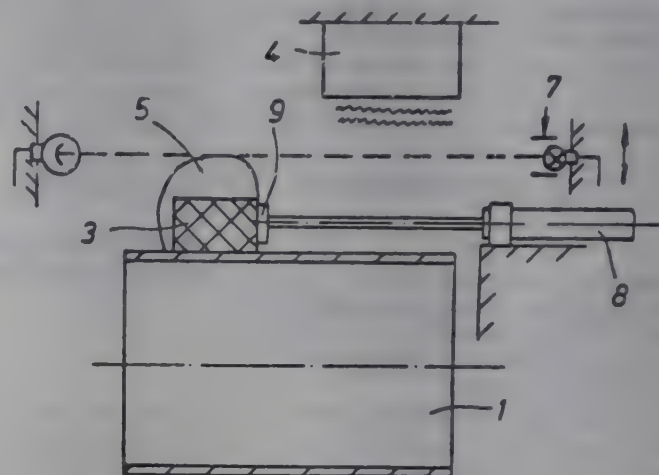
X25 P43 (21.10.81) A21d-15/04 B07c-05/34

02.04.81 as 102485 (39HM) (G) FR1314085 DS1240684 US4024956 FR2209587 FR2281176 DE2535285 FR1235397 FR1538600 US4177620 DE2803035 GB1135011 E(AT BE CH DE FR GB IT LI NL SE)

A continuous pasteurisation system for packaged food, specially bread in inflatable foil bags, uses an endless belt conveyor to pass the packages under a line of heaters. The developed vapour pressure causes the bags to be inflated, if sound. If they reach the

the packages to a track for 'GO' articles. If not, they continue to 'NOT GO' track.

This combines a pasteurisation by heat treatment and detects any foil bags which may have become defective thereby. (19pp) Dwg.No.4)



LEGU/ ★ D11 80150 D/44 ★ EP -38-250
Mobile bread bakery for army unit etc. in remote areas - has lorries and trailers carrying mfg. plant, oven, electric generator, water tanker etc.

LEGUEUP 11.04.80-FR-008166

Q15 (21.10.81) A21b-01/52 A21b-07 B60p-03/02

03.04.81 as 400546 (448KB) (F) FR-816520 FR1079726 FR119267 FR-782655 E(AT BE CH DE GB IT LI NL SE)

A mobile bread bakery is of the type which operates a variety of transport vehicles including covered platform lorry, covered platform trailer, powered tractors, mobile electric generator, mobile tanker etc. At least two covered vehicles are equipped with a retractable front or rear door. The doorways are opened and brought together to sandwich a surrounding seal with the vehicles temporarily fixed, doorway to doorway.

One vehicle contains a dough kneading machine and the other a baking oven. The kneading machine and the oven are both powered by the mobile generator. The mobile tanker is piped to supply water to the kneading machine and to the oven for humidifying the atmos. The retractable front and rear doors are pref. of the lip-and-over type which fold flat against the interior of the vehicle roof. Pref. one of the two covered vehicles is a lorry and the other a trailer. (12pp)

UNIL D11 06060 B/04 = GB 1601-307
Paste base for pizzas, etc. pref. for freezing - has cavity protuberances on the upper surface

UNILEVER LTD (PILL) 18.07.77-US-816641

(28.10.81) *BE-869-092 A21d-13

16.05.78 as 019711 (006RP)

A dough shell specifically for pizza prods. is made by frying a flat dough sheet while confining it to control development of blisters, the confining member pref. being formed with multiple recesses into which crust bumps from the frying dough sheet project.

Pref. the heat of frying also produces irregularities on the underside of the dough sheet, to provide air channels which promote crispness when re-heating from frozen. (18pp)

ACES- ★ D11 80430 D/44 ★ J5 6117-768
Preservable boiled noodle prodn. - by mixing flour with lower fatty acid ester and sugar-aminoacid decomposition prod., washing, soaking in glycine soln. etc.

ACE SHOKUHIN KK 21.02.80-JP-021285

(16.09.81) A231-01/16

21.02.80 as 021285 (42HM)

Boiled noodle (I) is produced by (1) mixing wheat flour with 0.05-0.1% of lower fatty acid ester (II) and 0.3-0.5% of sugar-aminoacid decompsn. prod. (III); (2) producing boiled noodle from the mixt. by usual method; (3) washing the noodle with water; (4) soaking in a soln. of pH 3-4 contg. 5-8% glycine for 30-60 min; (5) sepg. from the soln. and (6) heating at 95-100 deg C for 30-50 min. after sealing in heat-resistant envelope.

Esters of caprylic, caproic and lauric acids are used as (II). For

prod. has high antiseptic effect.

Bolled noodles have been made preservable with use of H2O2. Recently H2O2 was found to be toxic and a method for making noodle preservable without use of it has been advocated and is provided by this method. (3pp)

DAIL ★ D11 80431 D/44 ★ J5 6117-769
Noodle storage by treatment with sorbic acid suspension - contg. hydrophilic dispersant, does not affect taste, flavour or texture
DAICEL CHEM INDS LTD 21.02.80-JP-021455
(16.09.81) A231-01/16

21.02.80 as 021455 (5AS)

Aq.suspension contg. sorbic acid and hydrophilic dispersing agent is used. Sorbic acid is contained in amt. 0.01-0.1% in finished noodle.

Fine granular sorbic acid of particle size below 104 microns (through 150 mesh) can be used. As hydrophilic dispersing agent sucrose fatty acid ester, sorbitan fatty acid ester, fatty acid lactic acid ester, lecithin, etc. can be used. The aqueous dispersion is pref. prepd. so that it contains sorbic acid 10-50% and hydrophilic dispersing agent 0.1-5%.

The whiteness of the noodles can be improved. (6pp)

MARU- ★ D11 80432 D/44 ★ J5 6117-770
Antiseptic for boiled noodles - contg. glycerine fatty acid ester, organic acid, polyphosphate and alum
MARUNIKK 23.02.80-JP-021912
(16.09.81) A231-01/16 A231-03/34

23.02.80 as 021912 (5HM)

Antiseptic for boiled noodles contains (a) 0.5-5 pts.wt. of glycerin fatty acid ester; (b) 1-10 pts.wt. of organic acid; (c) 1-15 pts.wt. of polyphosphate; (d) 5-20 pts.wt. of alum and (e) 92.5-50 pts.wt. of flour. The method of use comprises (a) combining the antiseptic in amt. 0.5-1 w/w% in flour; (b) preparing boiled noodles with the flour as usual; (c) immersing in hot water (above 85 deg.C) or in a soln. obtd. by dissolving glycerin fatty acid ester 0.01-0.05 w/w%, organic acid 0.02-0.08 w/w%, polyphosphate 0.01-0.05 w/w% and alum 0.01-0.05 w/w% in hot water (above 85 deg.C) for a short time; (d) immediately packaging with thermoresistant synthetic resin film air-tightly and if necessary (e) heat sterilising. The organic acid is pref. fumaric acid and the polyphosphate is pref. Na metaphosphate.

The antiseptic can be used as a substitute for H2O2. The glycerin fatty acid ester, partic. glyceryl laurate has strong antibiotic activity and is free of undesirable flavour. By using it with an organic acid and keeping pH of the noodle at ca. 5.0 the antiseptic activity is further increased. The obtd. noodles become greyish white with time, but this is prevented by using polyphosphate and alum. (4pp)

FUKO ★ D11 80954 D/44 ★ J8 1042-263
Noodle constituent prepn. - by solvent extraction of opt. defatted soybean, heating extract, treating with enzyme and conc. (J5 27.10.75)

FUJI OIL KK 19.04.74-JP-044862

(03.10.81) C12n-01/14

19.04.74 as 044862 (22AT)

Bean soup is first prepd. by solvent extrn. of soybean or defatted soybean and is heated to modify the protein, then treated with enzyme, followed by concn. The resultant is used as a part of material for prepn. of noodle. (J50135297) (3pp)

ORIY D11 36013 B/19 = J8 1042-887
High quality bread mfr. - using dough contg. wheat flour, L-ascorbic acid and sucrose fatty acid ester as a substitute for potassium bromide

ORIENTAL YEAST KK 05.09.77-JP-105899

(07.10.81) *J54041-343 A21d-02/22

05.09.77 as 105899 (42MR)

The dough contains an agent (I), composed of 100 pts. wt. wheat flour, 5-100 ppm. L-ascorbic acid and 0.005-1 pt. wt. sucrose fatty acid ester of HLB greater than 10, pref. 11-15.

(I) pref. contains calcium stearate, enzyme of Koji and/or lecithine. (I) is mixed with the usual raw materials of dough, such as sugar, salt shortening, etc. (J54041343) (6pp)

TAKE/ D11 16291 B/09 = US 4294-166
Bread prodn. in kneading and baking oven - with baking tin lifting table, paddle-mixer and heating units

TAKEUCHI S 19.08.77-JP-099833

+ P28 (13.10.81) *DE2836-241 A47j-27 + B01f-07/24

06.06.80 as 157189 Div.ex 4234605 (+ 9.8.78-US-933116) (006PW)

Domestic bread-making appts., comprises a frame carrying an oven contg. an agitator and a water tank. A combined trough and baking pan is removably mounted in the oven, and is raisable and lowered relative to the agitator. Water heated by the oven is releasable from the tank into the trough.

Pref. raising the trough into cooperation with the agitator simultaneously lifts a drain plug in the tank bottom, and engages the trough with a spring-loaded cover in the oven. (9pp)

WILK/ D11 57016 A/32 #US 4294-862
(Flaky) pastry prodn. without a baking stage - by passing doughy mixt. through a series of rollers having controllable temps.

WILKE G 01.02.77-DE-703982 (31.01.78-US-873889)

(13.10.81) *DE2703-982 A21d-13/08 + A21c-09/08

10.04.80 as 138849 (+ 19.9.79-US-076994) (006PW)

Flaky pastry is made by advancing dough between successively faster rolls to produce a film-like web which is over-fed onto a conveyor so that the web becomes undulated, the temp. of the rolls being precisely controlled, within 1 deg.C, to a temp. in the range 3 to 20 deg.C.

Pastry dough with up to 50% fat can be processed successfully due to the rolls being kept at precise low temp., specifically by flowing coolant liquid through them. (8pp)

AMBA- D11 90680 C/51 = US 4294-864
High ratio batter compsns. - contg. untreated wheat flour, sweetening, protein and unmodified starch

AMER INST BAKING 04.06.79-US-045347

(13.10.81) *EP--20-170 A21d-10/04

04.06.79 as 045347 (965TM)

High ratio cake batter compsn. comprises (a) 100 pts. wt. wheat flour, (b) at least 110 pts. wt. sweetener, (c) 4-35 pts. protein, and (d) 5-15 pts. unmodified starch. (a) is free from treatment, including chlorination and heat treatment, for rendering the flour usable in high ratio cake batter. (c) is at least 1 of rye, soy, cottonseed, peanut, pea, egg white, milk, whey and wheat protein.

Pref. (c) is added in an amt. 0.6-6% on a flour wt. basis over and above the amt. of protein normally present in the compsn. Pref. (d) is either wheat, corn and/or potato starch.

Elimination of treated starch is obtd. without harming desirable organoleptic, and structural properties of the end prod. (4pp)

D12: MEAT; FISH PROCESSING

CHAR/ ★ D12 79801 D/44 ★ CA 1109-771
Toothed rollers machine for tenderising sliced meat and steak - has blood retaining tooth relationship automatically reset on reassembly after cleaning

CHARRON G 11.07.80-CA-356070

(29.09.81) A22c-09

11.07.80 as 356070 (448KB)

Each roller has similar meat teeth disposed in parallel, annular rows around the roller and in parallel, axial lines along the roller run between the rows of the other roller. On each roller the meat teeth in alternate rows are angularly offset by half a pitch of the

with a row on the other roller so that pairs of teeth bottom alongside each other.

The pitch of the meat teeth is equal to the pitch of the rear teeth. This ensures that putting the gears into mesh and disposes the rows of meat teeth in correct angular relationships. Pref. the dia. of the gears is the same as the dia. of the rollers over the meat teeth. One of the gears is greater axial thickness than the other so that the gear teeth also serve as meat teeth.

Used in tenderising slices of meat, steak etc. partic. in domestic kitchens and small catering establishments. Spaces between teeth which are shearing and compressing the meat are

from the compressed spaces. (15pp)

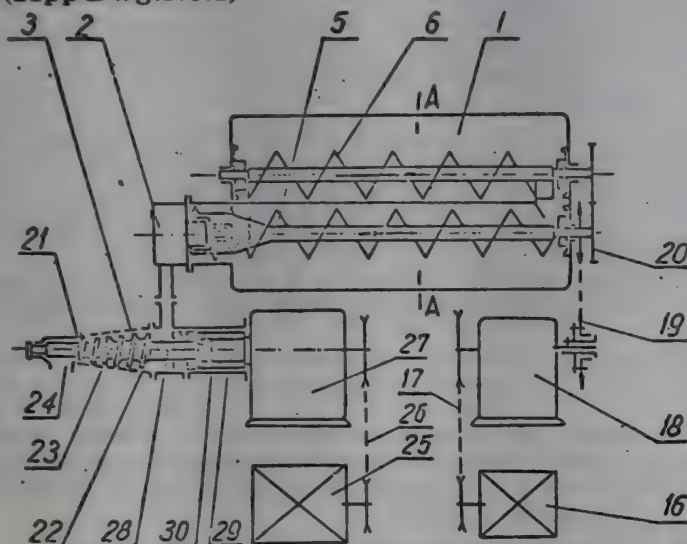
MASZ- ★ D12 79836 D/44 ★ DD -149-900
Machine for sepg. meat from bones or juice from fruit etc. - with screw feeder, vane pump and conical fleshing head
INST MASZYN SPOZYWC 31.03.80-DD-220078
(05.08.81) A22c-17

31.03.80 as 220078 (39DH)

Machine for the continuous separation of meat from bones, which can also be used to separate soft tissue from fishbones in the fish processing industry and for the squeezing of juice from fruit, consists of a twin screw feeder, a vane-type pump, and a fleshing head.

The two screws run in a feed tray with a bottom formed of two arcs and with inclined side walls. A splined shaft is supported in the front wall of the tray and penetrates into the screw shaft hub which is surrounded by a lip seal fitting.

This improves the productivity of the recovery of useful material. (21pp Dwg.No.1)



BANS- ★ D12 79869 D/44 ★ DE 3010-869
Pigs carcass singeing furnace - with temp. controlled heat exchangers in waste gas dome

BANSS MASCHINENF KG 21.03.80-DE-010869

X25 (22.10.81) A22b-05/08

21.03.80 as 010869 (39DH)

Gas-fired tunnel furnace to singe the bristles off pig carcasses has gas burners arranged on both sides and at least one heat exchanger in the dome for the exhaust gases. A solenoid valve automatically turns the water from the mains On and Off in synchronism with the gas burners.

Parallel pipes leading to the heat exchanger have restrictor valves, by-passed by two shunts, each with a valve controlled by a temp. probe in the water outlet from the heat exchanger to the zero-pressure storage tank.

This recovers a large part of the waste heat for the prepn. of warm water. (13pp)

FARH D12 33689 B/18 = DS 2860-840
Cellulose hydrate hose used as sausage skin - is coated externally with permeable elastic copolymer and internally with impermeable film (SF 30.3.79)

HOECHST AG 16.05.78-LU-079665 (05.08.77-LU-077930)

A97 + P42 P73 Q67 (A11 A14) (22.10.81) *EP---1-545 A22c-13
B29d-09/08 B32b-01/08 B32b-23/04

31.07.80 as 860840 Based on EPG001545 (260AT)

Tubular, pref. fibre reinforced, skins for sausages contain on their outside, a water permeable layer of a synthetic elastic copolymer. The skins are made as usual of a cellulose hydrate, possibly contg. a chemical plasticiser, and an inner layer of a water and vapour impermeable layer made from a synthetic, thermoplastic polymer.

The water permeable layer pref. consists of (a) 91-98 esp. 98 wt.% (mixts. of) butyl (meth)acrylate and 9-2, esp. 2 wt.% (mixts. of) (meth)acrylic acid or (b) mainly (mixts. of) butadiene, isoprene or chloroprene and lesser amts. of (mixts. of) (meth)acrylic esters, (meth)acrylic acid, acrylonitrile or styrene. Other pref. copolymer variants are given. The water permeable layer pref. has an area wt. of 0.5-8g/sq.m. The layer is pref. applied as an aq. dispersion contg. 5-10 wt.% copolymer particles of size less than 0.08, esp. less than 0.05µm. The dispersion pref. contains glycerol, glycol or polyglycol as sec. plasticiser.

The skins can be readily extruded onto the sausages and remain flexible after scalding. They are shock resistant and do not tear when the sausages are cut. (18pp)

MARC/ ★ D12 80153 D/44 ★ EP --38-261
Measuring device for sausage meat - formed by rotating sphere with through hole which also cuts up lumps of meat

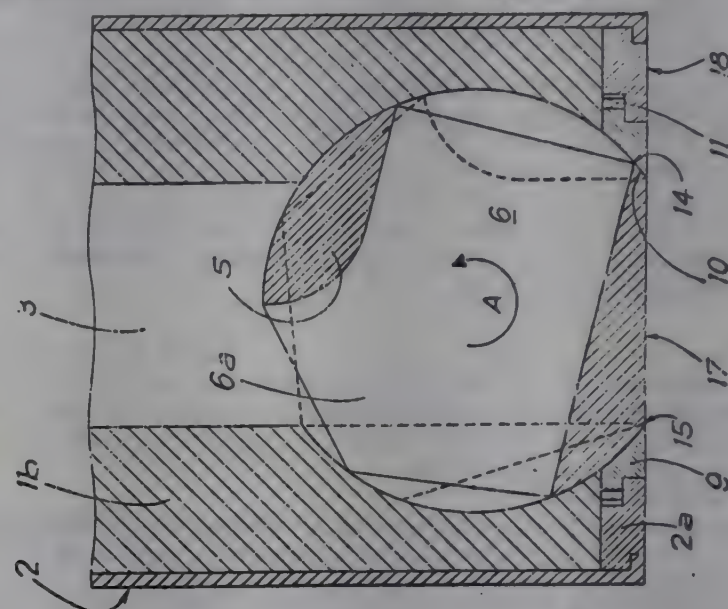
MARCHADOUR J C 16.04.80-FR-008534

Q31 (21.10.81) B65b-39

10.04.81 as 400578 (1099DH) (F) FR1434460 CH-458184 FR2086969 US3228412 E(DE GB IT NL)

In a sausage making machine the sausage meat is delivered into the bore (3) of a cylinder (1b). A sphere (5) with a through hole (6) is mounted at the end of the cylinder (1b) in such a manner that it can rotate about an axis transverse to the bore (3). The sphere (5) is retained by a ring (9) with a spherical seating surface (10). This ring (9) has external teeth (11) to enable it to be rotated by a driving pinion.

The rotation of the sphere (5) enables a measured amount of sausage meat to pass through the hole (6) during each rotation. At the same time any large chunks of meat are cut up by the sharp edge (14) of the through hole (6) as the edge passes over the rotating spherical seating surface (14). (12pp Dwg.No.2)



TRIO- ★ D12 80178 D/44 ★ FR 2478-432
Machine to grade fish according to size - drops them from channel with divergent gap between rising conveyor belts

TRIOENGINEERING 21.03.80-NO-000818

P43 (25.09.81) A22c-25/04 B07b-13/07

20.03.81 as 005599 (448NS)

Machine automatically grades fish according to size. The machine is of the type in which fish to be graded, are conveyed along a channel or 'V' section. The inclined sides of the channel are formed by surfaces of two, flat conveyor belts. At the base of the channel there is a gap between the edges of the conveyor belts, the width of the gap increasing progressively from the load end to the discharge end of the channel. The complete channel is now inclined to the horizontal, rising from the load end towards the discharge end. The angle of inclination to the horizontal is pref. between 10 and 45 deg.

A fish is no longer able to ride on the back of a bigger one and thus be carried into a grading compartment intended for bigger sizes. There is less damage to fish which drop on to inter-compartment partitions, as they now slide obliquely into the compartment on the upstream side of the direction of conveying.

(7pp)

PALE ★ D12 D/44 ★ IT 1052-103
Rotating device for sausages packaging

PALE TAB 21.05.63-AT-004091

(20.06.81) A22c

NISW ★ D12 80428 D/44 ★ J5 6117-759
Artificial fish meat-flake prodn. - by wetting granular vegetable protein with warm alkaline earth metal salt soln., moulding, dehydrating and finally seasoning

NISSHIN OIL MILLS KK 21.02.80-JP-019736

(16.09.81) A23j-03

21.02.80 as 019736 (42AT)

Food (I) resembling fish meat-flake is produced by first wetting granular vegetable protein (II) with warm soln. contg. alkaline earth metal salt (III). The wetted protein is moulded into flakes and washed and dehydrated followed by seasoning.

As (II), the proteins from soy bean and wheat flour are used. The granular size of (II) should be 3-10 mesh. Examples of (III) are sulphates, chlorides, phosphates and organic acid-salts of calcium and magnesium. The conc. of (III) in the soln. used is 0.3-1 wt.%. The temp. of the soln. is 70-100 C. The amt. of the soln.

used is 5-15 times as much as that of (II). The treatment of (II) with the soln. makes (II) glutinous and cutting becomes easy. The flaky (II) is washed for removal of the specific flavour in it, and then dehydrated by centrifugation. Thereafter, edible oil up to 30% and seasonings of 10-30% are added to (II).

The present method makes it possible to produce (I) from cheap vegetable protein. (4pp)

TOXO ★ D12 80429 D/44 ★ J5 6117-765
Edible spheres contain polysaccharide, - and deriva. of acetic acid decomposed fish and/or crustaceans

TOYO SEIKAN KAISHA 21.02.80-JP-020774

(16.09.81) A231-01/04

21.02.80 as 020774 (42NS)

Particles (I) contain polysaccharide (II), a mixt. (III) of 2-3 valent metal salts and/or extracts (IV) of acetic acid-decomposed products of waste fish and/or crustaceans.

(I) is pref. produced by pouring a liquid, composed of (II), (III) and (IV) into a liquid, which is composed of an upper phase of triglyceride (V) contg. surface active agent (VI) and a lower phase of a mixture of sea weed and its alkali-decomposed product, where the density and pH of the lower phase are adjusted to lower than 1.030 and 7.5-12, respectively. (II) is pref. caraggenan, tragacanth gum, guar gum, arabic gum, pectin, methyl cellulose, etc. (V) is pref. acetylated glycerides and triglycerides per se. (VI) is pref. lecithin, silicone oil, sorbitan fatty acid ester, sucrose fatty acid ester, etc. Pref. (I) contains 0.1-1% of the metal salts, 1-4% of (IV), and 0-2% of (II) and/or 5-20% of gelatin. The present method makes it possible to produce spherical jelly food. (6pp)

TOXO ★ D12 80436 D/44 ★ J5 6117-783
Treatment of pigs stomach and intestines - with addn. of sodium peroxo:phosphate e.g. to seasoning soln. to prevent discoloration

TOYO SEIKAN KAISHA (KORY-) 22.02.80-JP-020550

E34 (16.09.81) A231-01/31

22.02.80 as 020550 (5RP)

The method is effected either (a) by adding Na peroxophosphate at heat-processing of internals of pigs in hot water or (b) by heat-processing the internals of pigs in hot water, filling them in cans opt. after cutting them in pieces, adding Na peroxophosphate in the seasoning soln. and canning them as usual using the seasoning soln.

Discolouration of the internals can be prevented and the specific smell can be removed. Thus chicken-like white odourless food material can be obtd. As sodium peroxophosphate, disodium peroxomonophosphate and sodium peroxodiphosphate can be used. (3pp)

TOXO ★ D12 80437 D/44 ★ J5 6117-784
Salt resistant spherical coagulated food granules prepn. - by forming sol contg. gelling agent, coagulating, heating and immersing in dil. calcium soln.

TOYO SEIKAN KAISHA 20.02.80-JP-020354

(16.09.81) A231-01/32

20.02.80 as 020354 (5KB)

Method comprises (a) forming a sol contg. gel-forming substance (above 1%) and additives such as seasoning, flavour, tasty substance, etc., (b) dropping into coagulating bath contg. the salt of a metal having atomic wt. 50-80 or 100-140 and opt. a small amt. of calcium, (c) heat-processing the obtd. spherical coagulated granules at 70 deg.C in acidic saline soln. and opt. (d) immersing in dil. calcium soln. Spherical salt-resistant roe-like food having dia. 2-8 mm is prepd.

By using a coagulating bath contg. the salt of polyvalent metal of atomic wt. 50-80 or 100-140 (e.g. salt of Cu, Sn, Zn, Ba, etc.), spherical granules are obtd. having salt-resistant membrane and contg. seasoned liq. As the gel-forming substance, arginine acid, arginate, low methoxypectin and carrageenan are used. (3pp)

BCRC ★ D12 80378 D/44 ★ J5 6085-239
Canned fish-contg. food prodn. - includes treating cut surface of fish body with protein-decomposing enzyme (J5 11.7.81)

BRIT COLUMBIA RES 14.12.79-CA-341980

(D16) (11.07.81) A23b-04 A231-01/32

04.04.80 as 043689 (15AS)

Cut surface of the fish body is treated with enzyme hydrolytically decomposing protein, the protein curd at the cut surface is hydrolysed and the cut fish is sterilised and canned with tight-sealing step. Enzyme is a soln. of protease, papain peptidase produced from papaya latex of Carica papaya L., trypsin, ficin (one kind of papainase) produced from Ficus carica L., bromelain (one kind of protease) produced from Ananas comosus Merr., thymopapain or pepsin. Fish is common salmon, coho salmon, pink salmon, chum salmon or trout.

from oozed protein of fish body with the enzyme, prior to the canning process. (14pp)

VOLK/ ★ D12 81454 D/44 ★ US 4293-977
Poultry legs tie strip - has hook-ended parallel legs extending from cross member with U/shaped centre

VOLK A J 03.12.79-US-099470

(13.10.81) A22b-05 A22c-21

03.12.79 as 099470 (006HM)

The U-shape centre of the cross-member engages the leg ends of a poultry carcass, while the parallel legs with hooked ends enter the rear carcass opening to hold the legs in trussed position e.g. during freezing.

Pref. the tie is a one-piece unit of stiff wire, and the U-shaped centre is at 90 deg. to the member. The tie resists dislodgement e.g. while tumbling during freezing. (5pp)

SIMO- D12 28420 D/16 = US 4293-978
Dead poultry handling system - transports bodies along curved horizontal path while pulling heads off downwards

SIMON-JOHNSON INC 01.10.79-US-081008

(13.10.81) *NL8005-418 A22c-21

01.10.79 as 081008 (006TM)

Appts. for separating heads from poultry carcasses, comprises a conveyor which carries leg-suspended birds to a rotating structure which supports their bodies as grippers seize their necks. The grippers descend as the structure rotates, to pull off the heads and some innards, including the crop.

Each gripper is in the form of a V-shaped loop, the legs of which diverge downwardly and outwardly from the rotating structure. (7pp)

COLO/ ★ D12 81455 D/44 ★ US 4293-979
Forming press for meat grinder outlet - with multi:passage extrusion die held between clamped parts forming cavity

COLOSIMO G A 13.10.78-US-951028 (06.09.77-US-830838)

(13.10.81) A22c-07 A22c-11

13.10.78 as 951028 Div.ex.4148598 (1358AT)

A press for e.g. skinless link sausages and artificial meat prods has two halves clamped together to form an open-ended cavity with its inlet end coupled to a meat grinder outlet, and an extrusion die fitting in the cavity and having a number of passages with an inwardly converging V-shaped common inlet.

Passage inlets have sharp angled edges around their periphery while the outlet ends lie in the same plane. The die has a lower surface extending beyond the passage outlets, and sidewalls with gradually converging inner surfaces to further slightly compress the extruded material. A ramp can pref. be attached to the lower surface and has a slot through which a paper ribbon with regular graduations is fed to provide a continuous base for extrudate and permit rough sizing. (5pp)

FLET- D12 02229 C/02 = US 4293-980
Method and apparatus for washing animal bungs - by engagement on radial support supplying wash water

FLETCHER W & R NZ 30.06.78-NZ-187739

(13.10.81) *GB2023-992 A22b-05/18

18.06.79 as 049804 (006TM)

An animal casing such as a bung is washed by sleeving it over a wash liquid supply pipe which delivers the liquid in the form of inclined jets for rotating the casing around the pipe.

Pref. multiple pipes extend as the radial arms of a rotor, the wash zone being a segment of the circular path swept by the arms, and spaced from a loading zone. (7pp)

SMIT/ ★ D12 81456 D/44 ★ US 4293-981
Crab cleaning appts. removes carapace - by conveyor chains with lugs which pivot shell backwards

SMITH C M 24.09.79-US-078036

(13.10.81) A22c-29/02

24.09.79 as 078036 (295NS)

Crabs are advanced, eyes first, along a horizontal surface by a conveyor chain with upstanding lugs which engage the rear of the crabs. An overhead conveyor converges with the crabs but its lower run moves in the opposite direction to the crab conveyor. Lugs on the overhead conveyor engage the forward end of the carapace and further movement of the conveyor pivot the shell about the rear end of the crab, to separate it from the remainder of the body. The removed shell is carried away by the overhead conveyor which traps the shell against guide rods which run parallel with the overhead conveyor. The appts. is claimed.

The carapace removal precedes cleaning of the body cavity and removal of the legs. (16pp)

MOUL/ ★ D12 81613 D/44 ★ US 4294-858
Mfr. of self-surfaced meat product - by pumping emulsion through tube passing through microwave oven, heater and cooler
MOULERE 27.03.80-US-134605
(13.10.81) A23b-04

27.03.80 as 134605 (295AS)

A self-surfaced meat product is formed by delivering an emulsion from a container through a tube at a predetermined rate against a back pressure. The back pressure is created by laterally constraining the prod. as it moves through the tube. The emulsion is subjected to microwave energy as it travels along the tube to congeal it. The tube is heated to melt materials on the outer surface of the product to form a self skin. The tube is subsequently cooled to solidify the outer surfaces of the product and complete the formation of a self skin. The prod. is finally released from the tube. Used for forming a meat prod. such as bologna or salami. The prod. is not formed in a casing which has subsequently to be removed. (7pp)

ROTH/ ★ D12 81614 D/44 ★ US 4294-860
Refrigerating meat paste to prevent bacterial growth - using cooled drum around which sheet of paste is wound

ROTHEN 14.12.79-US-103498 (07.11.77-US-849166)

(13.10.81) A23b-04/06 A23l-01/31

14.12.79 as 103498 (+ 18.12.78-US-970579) (295NS)

A protein-containing solids food is formed into a viscous paste which is applied to the cylindrical surface of a rotating drum cooled to a temp. at or below freezing. The relative temps. of the paste and drum surface are selected so that the paste momentarily melts congealed or frozen liquid along the interface between the paste and drum. The low temp. of the drum surface subsequently causes the liquid components at the interface to form a congealed or frozen solid to cause the viscous paste to

adhere to the drum surface. The sheet of paste is compressed to improve the heat transfer characteristics across the thickness. The paste is finally removed in a frozen condition.

The paste pref. includes minced, rendered materials such as beef, pork, poultry, and even protein materials derived from vegetables such as spinach, squash or soy beans. The rapid cooling prevents undesirable bacterial growth. (9pp)

CORO/ ★ D12 81617 D/44 ★ US 4294-865
Preparing beef for cooking - by mechanically grinding and then compressing with additives into compacted unit

CORONCOS JH 29.10.80-US-203576 (19.06.78-US-917017)

(13.10.81) A23l-01/31

29.10.80 as 203576 (67HM)

Beef is prepd. for cooking on a vertical rotisserie by first cutting it into small pieces and then grinding it in a mechanical grinder. The ground beef is spread out on a wide surface and additive ingredients kneaded into it. The beef mixture is then moulded and compressed into a cylindrical shape and during compression a plastics sleeve is placed in the centre of the moulded shape to provide a hole for a skewer. After moulding and compressing the meat is wrapped and frozen.

The prepd. beef can be cooked on a vertical rotisserie without cracks developing in the meat or the meat breaking up during cooking. (7pp)

D13: OTHER FOODSTUFFS

DEAK ★ D13 79806 D/44 ★ DD -149-842
Protein contg. animal feed prodn. from activated sludge - by partial evaporation of alkaline sludge to eliminate toxins

AKAD WISSENSCHAFT DDR 19.10.78-DD-208553

C03 (05.08.81) A23k-01

19.10.78 as 208553 (1251NS)

Recovery of feed from activated sludge from waste water purifcn. comprises adjusting to pH 8-11 then evaporating or distilling out released toxic and 'anti-nutritional' associated substances together with at least 10% of the water in the suspension.

The sludge can be derived from domestic or industrial wastes, or from animal prodn. (e.g. liq. manure), and is made alkaline with alkali hydroxide or other non-volatile bases. The sludge can be (a) warmed to 90-100 deg.C then passed to an evaporator, (b) treated by steam injection; (c) warming to 105-200 deg.C under reduced pressure, then releasing the pressure.

By destroying or eliminating toxins, the sludge can be used safely as feed over a long period without toxicity problems. (11pp)

FAHR/ ★ D13 79837 D/44 ★ DD -149-901
Raw lactic casein drying - in fluidised bed for coarse and flash dryer for fine particles

FAHR J 31.03.80-DD-220030

(05.08.81) A23j-01/22

31.03.80 as 220030 (39AT)

Raw lactic casein is dried in a fluidised bed after it has been reduced by shear to a particle size to suit the air velocity. The waste air leaving the dryer with the moist fines is fully satd. by steam. The casein fines are passed from the star wheel lock of a cyclone into the ascension pipe of a flash dryer for a final drying operation.

A screw conveyor charges the casein in the grater where it passes through 2mm perforations into a fluidised bed dryer. Air drawn in by the ventilator through the cyclone is preheated by the grilled tube heat exchanger to 130 deg.C. Coarse casein spills over an overflow into the star wheel lock.

This is a very gentle drying process which has a high thermodynamic efficiency and saves the energy consumption for any granulation. (10pp)

SCHM/ ★ D13 79864 D/44 ★ DE 3006-092
Aromatising dried tea-leaves - by spraying with aroma oil and packing in oxygen free atmos. pref. under nitrogen or carbon di:oxide

SCHMITT W 19.02.80-DE-006092

(22.10.81) A23f-03/40

Dried tea-leaves are aromatised by spraying with aroma oil in an O2-free atmos. The aromatised tea-leaves are packed in an O2-free atmos. Oxidn and degradation of the ethereal oils in aroma oils is suppressed.

Spraying and packing take place esp in a gas which replaces air-O2 and is inert w.r.t the aroma-oil and its carriers. The O2-free atmos is generated esp by rinsing with the inert gas, e.g. N2 (prefd) or CO2. The O2-free atmos can contain a residual 2% O2 content, which affects neither oils nor fragrances. Pref aroma oil-propellant also consists of the air O2-replacing inert gas. (6pp)

THOM ★ D13 79950 D/44 ★ DE 3015-113
Sweetening agent benzothiazole derivs. - which are 4-hydroxy- and 4,6-di:hydroxy-1,2 benzisothiazol-3(2H)-one 1, 1-di:oxide and their salts

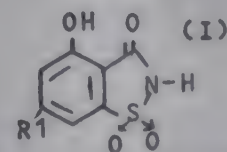
THOMAE K GMBH 19.04.80-DE-015113

B02 E13 (22.10.81) A23l-01/23 C07d-275/04

19.04.80 as 015113 (280RH)

4-Hydroxy-1,2-benz isothiazol-3(2H)-one 1,1-dioxides (I) and their physiologically tolerable salts with organic and inorganic bases are new, (where R1 is H or OH).

(I) are useful as sweetening agents. Their sweetening power is at least equal to that of currently used sweetening agents, their flavour is free from concomitant flavours or aftertaste, they have very good water solubility, they are stable to temperature and acids, and they are free from any toxicological or pharmacological effects and therefore absolutely safe to use. (53pp)



GENO D13 89997 C/23 #EP -37-810
Microporous soluble coffee of specified pore radius - prepd. by freeze drying and used to absorb roast coffee flavours

GENERAL FOODS CORP 12.11.79-BE-879956 (18.10.79-EP-900568)

+ Q76 (21.10.81) *BE-879-956 A23f-05/32

18.10.79 as 900568 Based on WP8101094 (597BZ) (E) US2751687 US3573060 US3660115 US3672917 US3765904 2.Jnl.Ref E(AT CH DE FR GB LU NL SE)

Lyophilised soluble coffee has 3-30 microlitres/g. of pore space having a pore radius of 150 Angstroms or less. It is prepd. from an aq. extract by instant freezing of sprayed droplets of 200 microns

or less size by contact with a cryogenic liquid maintained at -100 deg.C or below. The microporous solid is used to absorb 0.1-2% of roast and ground coffee flavours. The flavoured solid in turn is mixed at 0.1-5% with a soluble coffee prod. in a container which can be opened and shut enabling release of roast ground flavour to the top of the container.

The absorbed flavour avoids the current use of coffee oil as flavouring which gives rise to a number of problems in prodn. and use. (16pp)

FMCC ★ D13 79992 D/44 ★EP --37-887
Inhibiting growth of *Clostridium botulinum* in meat etc. - and formation of enterotoxin, by addn. of hypo:phosphorous acid or salts

FMC CORP 17.11.80-US-207566 (14.04.80-US-140328)
E37 (21.10.81) A23b-04/02 A23l-01/31 A23l-03/34
20.02.81 as 101227 (+8.9.80-US-184689) (513AT) (E) GB2029192 US4113885 US4153613 US4039690 E(AT BE CH DE FR GB IT LI LU NL SE)

Meat, poultry and fish prods. are claimed to which have been added 1000-3000 ppm hypophosphorous acid or Na-, K-, Ca-, Mg- or Mn hypophosphite. The prod. may also contain Na nitrite and may be smoked.

The hypophosphorous acid (salt) may be added to the meat etc. either directly, or added with the pickle in soln. or solid form, or rubbed into the meat or fish.

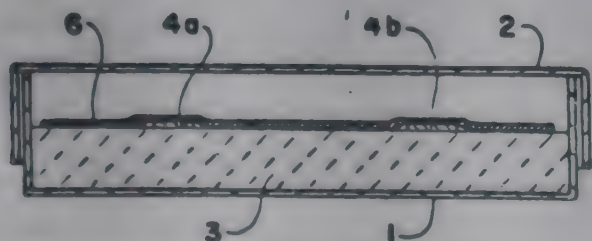
The hypophosphorous acid (salt) inhibits the growth of *Clostridium botulinum* and formation of enterotoxin in smoked meat, poultry and fish prods., and esp. in smoked bacon. Use of the hypophosphorous acid (deriv.) allows redn. or omission of nitrite e.g. in smoked bacon, and thus reduces the possibility of formation of carcinogenic nitrosamines when cooking such prods. The treatment can also be applied to comminuted meat prods. such as Frankfurters. (25pp)

TEVA- ★ D13 80007 D/44 ★EP --37-932
Rapid detection of antibacterial agents in food etc. - by application to medium seeded with lactamase producing bacteria, then assaying the enzyme prod.

TEVA PHARM IND LTD 27.03.80-IL-059723
B05 S03 (D16) (21.10.81) C12q-01/34 G01n-33/04
25.03.81 as 102218 (1251RH) (E) US2601350 US3830700 US3644177 FR2409517 US4239745 4.Jnl.Ref E(BE CH DE FR GB IT LI NL SE)
Determination of beta lactam antibiotics (I) comprises seeding a nutrient medium with bacteria (or spores) which produce beta-lactamase (II), applying a test sample, then incubating. The (II) prod. is then assayed, pref. by developing with a (II)-susceptible penicillin or cephalosporin then assaying a breakdown prod., esp. (a) penicilloic acid (assayed with an iodinated polysaccharide) or (b) an acid (assayed with a pH indicator).

(I) and an antibiotic of a different type can be assayed simultaneously by applying two separate samples to the medium, one sample being mixed with a (I), then comparing development of the two sites. Pref. bacteria are *Bacillus cereus* or *B. licheniformis*.

The method is simple and rapid (45-60 min) and can be used for qualitative or semiquantitative analysis of (I) or any other type of antibiotic in food, infusions, vaccines, blood for transfusion, body fluids, etc. No extraction of the sample before testing is necessary. (21pp Dwg.No.2)



MILE ★ D13 80037 D/44 ★EP --37-999
Prepn. of low cholesterol casein - by enzyme treatment of skim milk and enzymatic coagulation of the casein, useful in cheese analogue prodn.

MILES LABORATORIES INC 16.04.80-US-140690
(D16) (21.10.81) A23j-01/20
06.04.81 as 102568 (513MR) (E) No-Citns. E(AT BE CH DE FR GB IT LI NL SE)

Low cholesterol casein is made by maintaining skim milk at a pH of 6.0-6.9; treating the skim milk with pancreatic lipase to dissociate the casein from the cholesterol; coagulating the casein enzymatically to form a solid casein phase dispersed in a liq. whey phase; and recovering the solid casein from the whey.

Pref. the amt. and activity of the pancreatic lipase is such as to provide 17-31 lipase units and 16-27 Northrop units per litre of skim milk and the ratio Northrop units to lipase units is greater

10-60 mins. at 30-37 deg.C. The enzymatic coagulant used is pref. calf rennet or a microbial rennet and the treatment with the enzymatic coagulant is 10-20 mins. at 30-37 deg.C.

Process gives casein with reduced cholesterol content useful in the prodn. of cheese analogues, e.g. for use in diets requiring low cholesterol foods. (28pp)

SHIE ★ D13 80057 D/44 ★EP --38-052
Pheromone cis-alkenyl acetate prepn. - by reacting 3-alkenyl-magnesium chloride with di:bromo:alkane and the resulting cis-alkenyl bromide with metal acetate

SHINETSU CHEM IND KK 14.04.80-JP-048934 (14.04.80-JP-048933)
C03 E17 (21.10.81) C07c-17/26 C07c-21/14 C07c-67/11 C07c-69/14

10.04.81 as 102780 (916AS) (E) US3825607 GB1504077 GB1228115 E(CH DE FR GB IT LI NL)

Cis-alkenyl acetates of the formula

$RCH = CHCH_2CH_2(CH_2)_nO.CO.CH_3$ (I)

are prepd. by reacting a Grignard reagent derived from a cis-1-chloro-3-alkene of formula

$RCH = CHCH_2CH_2Cl$ (II)

with a polymethylene dibromide $Br(CH_2)_nBr$ (III) to give the cis-alkenyl bromide

$RCH = CHCH_2CH_2(CH_2)_nBr$ (IV)

This is reacted with an alkali metal acetate to give (I).

(I) are pheromones. Starting materials (III) are readily available, low temperatures and substances difficult to handle are not required. (22pp)

SHIE ★ D13 80058 D/44 ★EP --38-053
Pheromone and flavour intermediate cis-nonenyl-6 chloride prepn. - by reacting cis-hexenyl-3 chloride with 1-bromo-3-chloropropane

SHINETSU CHEM IND KK 14.04.80-JP-048935

C03 E16 (21.10.81) C07c-17/26 C07c-21/04

10.04.81 as 102781 (916MR) (E) US3825607 1.Jnl.Ref E(CH DE FR GB IT LI NL)

Cis-nonen-6-yl chloride (I) is prepared by reacting a Grignard reagent derived from cis-hexen-3-yl chloride (II) with 1-bromo-3-chloropropane (III) in tetrahydrofuran (THF) in the presence of lithium copper dichloride or dilithium copper tetrachloride as catalyst.

The Grignard reagent is prepd. by reacting (II) with Mg metal in THF at 40-66 deg.C. The reaction of the Grignard reagent with (III) also takes place in THF, but at 0-40 deg.C. The catalyst is present at the rate of 0.001-0.1 mole per mol (II).

(I) is an intermediate for cis-nonen-6-yl acetate, cis-nonen-6-ol and cis-nonen-6-al which are flavours with a melon- or cucumber-like odour and for cis-dodecen-9-yl acetate and cis-tetradecen-11-yl acetate which are sex pheromones for the grape berry moth, tea tortrix and summer fruit tortrix. Yields are of the order of 85-90%. (8pp)

TECN. ★ D13 80151 D/44 ★EP --38-254
Automatic control of butter of cheese curd mfr. - based on analysis of water, fat, non-fat milk solids and salt

TECNAL SA 11.04.80-FR-008167

S03 P13 (21.10.81) A01j-15/12 A01j-25 A23c-19/02 G01n-21/35 G01n-24/08

08.04.81 as 400561 (367KB) (F) FR2087203 FR2178803 FR2273279 FR2050525 US3966973 DE2358307 DS-863165 E(AT BE CH DE GB IT LI LU NL SE)

Process and appts. are claimed for continuously monitoring and automatically controlling the proportions of water, fat, non-fat milk solids (proteins and lactose) and salt in butter and cheese curd from continuous prodn. lines, in which monitoring is effected automatically using a conventional analyser, esp. an IR reflectance or absorption analyser or a NMR analyser.

The process comprises continuously and automatically sampling the butter or curd, softening the sample, pumping the sample into the measuring cell of the analyser, and using the analysis results for automatic control of the water, fat, non-fat milk solids and salt content.

The sample is pref. softened to the point of liquefaction, esp. by melting, opt. before or after dilution with water. (14pp)

FINE- ★ D13 80182 D/44 ★FR 2478-493

Using waste vegetable material as absorbent for liq. - e.g. in mulches, plant growing media or for soaking up oil spills

FINEDOC SICA SA 21.03.80-FR-006364

C03 P11 P13 P43 (C04 D16) (25.09.81) A01c-31 A01g-09 B09b-03 C05f-11 C09k-17

21.03.80 as 006364 (1251AT)

The use of residual and waste materials from distilleries, from fruit and vegetable canneries and from grain silos as hygroscopic

from a hydraulic gun onto bare soil; esp. by simultaneous discharge of seeds, fertilisers and a mixt. of grape pulp and conc. low quality wine. The material can also be used as powders or granules to absorb hydrocarbons spilt on the soil or water; as a medium for container-grown plants (after neutralisation) and in seats (other than those made of leather) to absorb perspiration by a transpiration process.

Valuable applicns. are now available for materials which previously had to be disposed of. (5pp)

TEAR- ★ D13 80274 D/44 ★ GB 2074-004
Fermentation of green tea - at controlled acid pH to improve flavour and storage characteristics

TEA RES FOUND CEN A 22.04.80-GB-013180

(D16) (28.10.81) A23f-03/08

22.04.80 as 013180 (478AT)

Green tea (I) is fermented at pH 4.3-5.0 in the presence of 0.02-0.7 pts. of an acid (per wt. pt. of green (I)).

In the fermentation pH is pref. 4.5-4.8, esp. ca 4.6, using e.g. 0.1M-H₂SO₄, 0.33M-HOAc, or 0.2M-H₃PO₄. Wt. ratio acid:(I) is pref. 0.05-0.2, esp. ca 0.1.

Treatment uses less liq., and affords a black tea from dhool which has better storage props. In addn., the finished black tea has improved taste props. (5pp)

GENO ★ D13 80275 D/44 ★ GB 2074-006
Prepn. of microporous, dry, soluble coffee prod. - by spraying aq. coffee extract into solvent, prod. is capable of sorbing volatile aromatics

GENERAL FOODS CORP 10.04.80-US-139059

(28.10.81) A23f-05/28

09.04.81 as 111125 (478AT)

A microporous, dry, soluble coffee prod. is prepd. by (a) an aq. extract or soln. of autoclave coffee solids (I) is sprayed into an anhydrous organic solvent to dehydrate the extract and afford microporous particles or granules of soluble coffee solids; (b) particles are recovered; and (c) residual solvent is removed in vacuo.

In (a) the extract pref. contains 10-60% esp. 25-35% soluble solids, and is at 30-32 deg.C. Solvent is pref. EtOH, and is pref. kept at -100 deg.C. Spraying is pref. at 600-1100 psig, with ratio aq. extract:solvent not above 1:20. In (c) solvent removal is pref. at room temp. -90 deg./in vacuo. Prepd. particles have micropore vol. (radii of not above 150 angstroms) 5-560 micro l/g; and surface area 7-210 sq.m/g. The particles will sorb up to 2% generally 0.2-0.5% by wt. of volatile aromatics.

The prepd. microporous coffee prod. has a unique microporosity capable of sorbing and retaining volatile aromatics and releasing these in a controlled manner. In addn., process is inexpensive and avoids use of freeze-drying equipment. (4pp)

GENO ★ D13 80276 D/44 ★ GB 2074-007
Soluble coffee prod. having improved headspace aroma - contg. microporous coffee solids carrying sorbed aroma cpds.

GENERAL FOODS CORP 10.04.80-US-139061

(28.10.81) A23f-05/46

09.04.81 as 111126 (955AT)

A dry soluble coffee prod. is claimed having added to it aromatised particles or granules (A) of microporous structured soluble coffee of relatively small pore radius, and one or more fractions (B) of microporous structured soluble coffee of larger pore radius than (A), and/or (C) a conventional coffee powder.

The microporous particles (A) pref. have pore radius about 30 angstroms, and those of (B) up to 150, esp. 55-60 angstroms. The particles may be aromatised by any conventional method.

The microporous particles sorb and retain aroma cpds. efficiently. The prod. has the best possible initial jar headspace aroma and in use aroma quality and intensity. (5pp)

GENO ★ D13 80277 D/44 ★ GB 2074-008
Microporous freeze dried coffee particles - useful as sorbent carrier for flavouring volatiles giving improved headspace aroma

GENERAL FOODS CORP 10.04.80-US-139060

(28.10.81) A23f-05/30

09.04.81 as 111128 (955JB)

Microporous freeze dried coffee is prepd. by (a) chilling a metal plate in a refrigerant kept at -195 to -73 deg.C, (b) immersing the plate in an aq. extract soln. of coffee solids, where a thin layer becomes frozen on the plate, (c) immersing the plate carrying the frozen layer in the refrigerant again, (d) removing the frozen extract as flakes, (e) grinding, and (f) freeze-drying the flakes.

Freezing is rapid, so small ice crystals of controlled size are formed. The prod. can sorb volatile aromas, and can be aromatised and used to give an instant coffee having an improved, stronger headspace aroma. (4pp)

VANN/ ★ D13 D/44 ★ IT 1052-127
Rotating press for continuous formation of cheese products
VANNIL 28.02.73-IT-048513
P13 (20.06.81) A01j

GENO ★ D13 80379 D/44 ★ J5 6085-255
Prod. of dog food having improved flavour - by mixing enzyme treated protein with fat, carbohydrate, vitamin(s) and mineral(s)
GENERAL FOODS CORP 15.11.79-US-091225
C03 (D16) (11.07.81) A23k-01/18
15.11.80 as 161318 (15PW)

Treated protein is mixed with fat, carbohydrate, vitamin and minerals and the dog foods having a nutritious balance is produced. The protein is reacted with enzyme at 30-70 deg.C and thereby, the enzyme and free amino-nitrogen are removed from the treated protein.

The said enzyme is ficin (kind of papainase) produced from *Ficus carica* L., trypsin, bromelin (kind of protease) produced from *Ananas comosus* Merr., pepsin or papain peptidase. The dog foods has porosity of 25-75 volume percent and it is extruded as a moulding.

Above dog foods contains amino acids such as L-phenylalanine, L-tyrosine, L-tryptophane, L-isoleucine or etc. and the amino acids stimulate the dog's taste. (13pp)

ASAH ★ D13 80427 D/44 ★ J5 6117-753
Drink based on milk - contg. added minerals and/or vitamin(s), and crystalline cellulose

ASAHI CHEMICAL IND KK 22.02.80-JP-020578

(16.09.81) A23c-09

22.02.80 as 020578 (42RH)

Drink (I) contg. milk (II) as principal component, minerals (III) and/or vitamins (IV), and crystalline cellulose (V) is new. (I) is produced by mixing (II), (III), (IV) and (V) and the mixture is sterilized followed by being packed.

Recently poverties of (III)- and (IV) intakes of young people are reported. Although (II) contains much (III), it is necessary for young people to intake more (III) as well as (IV). The addition of (III) in (II) makes the emulsion of (II) unstable, and most of (IV) is hardly emulsified in (II) because of their oily properties. The present composition of (I) is easily emulsified and maintains its emulsion stably for a long period.

As pref. examples of (III), water-insol. and hardly soluble calcium salts are listed. The water-insol. and hardly soluble salts should have solubilities in water at 20 deg.C lower than 0.01 g/100 ml-water and lower than 0.1 g/100 ml-water, respectively. The particle size of the salt should be smaller than 10 micron. Examples of (IV) are vitamin A, D, E, B₁, B₂ and C. The amts. of (III) and vitamins A, B₁, B₂, C and D added are 1-20 g, 1000 Iu, 1 mg, 2-3 mg, 100-500 mg and 1000-2000 Iu, per 1 g of (I). (V) of 0.2-1.5 wt.% is used in (I). (4pp)

UEDA- ★ D13 80433 D/44 ★ J5 6117-771
Frying battery improving agent prodn. - by heat-dissolving lipophilic and hydrophilic emulsifiers in edible oil, adding sugar, water etc., stirring, cooling rapidly and solidifying

UEDA SEIYU KK 21.02.80-JP-021159

(16.09.81) A23l-01/17

21.02.80 as 021159 (5HM)

Method comprises (a) dissolving lipophilic emulsifier and hydrophilic emulsifier in edible liq. oil with heating; (b) adding sugar, water, etc. to the mixt., (c) stirring it to W/O type emulsion; and (d) cooling the emulsion rapidly to convert it to O/W type and solidifying.

The lipophilic emulsifier is synthetic surfactant e.g. fatty acid ester of glycerin, propyleneglycol, sorbitan, and/or natural surfactant e.g. lecithin. The hydrophilic emulsifier is sucrose fatty acid ester, water soluble gum arabic, arginic acid, etc. The edible liq. oil is soy bean, rapeseed, sesame, cotton seed, corn, rice, kapok, vegetable fractionated oils, etc.

By using the improving agent, ca. 10% flour batter, excellent for frying, is prepd. simply by mixing flour, water, improving agent and opt. egg, skimmed milk, shortening, baking powder, etc. The batter has excellent battering and breading properties and fried foods of excellent appearance, we prepd. without puncturing during frying. (3pp)

FUKO ★ D13 80434 D/44 ★ J5 6117-776
Fried bean curd prepn. - by mixing vegetable protein, alkaline earth metal coagulant and bean curd, kneading, moulding and frying mixt.

FUJI OIL KK 23.02.80-JP-022051

(16.09.81) A23j-03 A23l-01/20

23.02.80 as 022051 (5WB)

Method comprises mixing vegetable protein of crude protein (CP) content above 60 w/w% (on dry basis), alkaline earth metal-type coagulant, in amount above 1 w/w% esp. 5-15 w/w% on the CP of

the vegetable protein and bean curd, kneading the mixture, moulding it and frying.

The coagulant can be water insoluble such as calcium sulphate or water soluble coagulant such as calcium chloride, magnesium sulphate, etc. when an alkalisng agent such as sodium hydroxide is required.

Fried bean curd, which has the taste, flavour, texture and appearance of conventional fried bean curd can be prepd. with high productivity and bean curd can be used as it is without dehydration. (5pp)

HAYB ★ D13 80435 D/44 ★ J5 6117-781
Sweet material mfd. - by contacting Momordica fruit extract with magnesium silicon aluminate and recovering material from non-adsorbed portion

HAYASHIBARA BIOCHEM(NICH-) 21.02.80-JP-019741
E33 (16.09.81) A231-01/22 C07h-03/02 C07h-15/24
21.02.80 as 019741 (5WB)

Method involves contacting liquid extract prepd. from the fruit of Momordica grosvenori Swingle, a perennial herb of Cucurbitaceae with magnesium silicate aluminate (Mg-SA) and recovering sweet substance from unadsorbed part.

Spent Mg-SA can be easily regenerated either by washing with dilute alkali soln. and water or by burning it at 300-600 deg.C. The obtd. sweet material contg. glycosides have a sweetness 10-200 times that of sucrose. It can be used as it is or as a concentrate or dried powder. (4pp)

LIOY ★ D13 80438 D/44 ★ J5 6117-787
Fried foodstuff contg. antioxidant and dehydroacetone, quercetin, citric acid, phytic acid, miso peptide and/or casein peptide

LION DENTIFRICE KK(ASAM-) 16.02.80-JP-018408
(16.09.81) A231-03/34
16.02.80 as 018440 (5AS)

Fried food contains (A) antioxidising component (I) and (B) dehydroacetone, quercetin, citric acid, phytic acid, miso-peptide and casein peptide. Food is prepd. by combining (A) and (B) in the food material to be fried and opt. in frying oil.

(I) is prepd. by (a) extracting herb-type spices, their extrn. residue, oleoresin obtd. by extracting herb-type spice with polar solvent and/or its extrn. residue with polar solvent, (b) decolourising the extract with adsorbent, (c) concentrating; (d) steam-distilling and (e) collecting insolubles remaining in the steam distn. residue.

Fried foods (e.g. potato chips, fried rice cake, etc.) which are stable to oxidation and have long shelf life, can be prepared. (6pp)

HONS D13 18205 Y/11 = J8 1042-250
Fermented milk prod. esp. for baby food - obtd. by culture of novel strain of Bifido bacterium bifidum

YAKUCHI HONSHA KK 01.01.76-JP-000296
(D16) (03.10.81) *BE-847-884 A23c-09/12 C12n-01/20
01.01.76 as 000296 (597TM)

Prepn. of fermented milk contg. viable bifidobacteria comprises culture in a lactic medium using a variant of bifidobacteria. This is resistant to acid, can propagate aerobically in a pure lactic medium; does not contain any substance favouring the growth.

Fermented milk prepd. also contains organic acids predominantly acetic/lactic acids in molar ratio of 1.7 + -0.5 and is opt. dried. Strain Bifidobacterium bifidum YIT-4005 is novel.

The products are used in baby foods, esp. for non-breast fed babies. The bifidobacteria are present in the intestines of breast fed babies and give many beneficial effects lacking in the food of bottle fed babies. (J52083974) (9pp)

TAKE ★ D13 80953 D/44 ★ J8 1042-252
Powdered foodstuff prodn. by mixing polysaccharide - contg. beta-1,3-glucose linkages with vegetable protein type foaming agent (J5 20.10.75)

TAKEDA CHEMICAL IND KK 08.04.74-JP-040253
(03.10.81) A231-01/10
08.04.74 as 040253 (22NS)

Aq. solution of dispersion of polysaccharide which contains beta-1,3-glucose linkage and can be coagulated by heating, is mixed with vegetable protein type foaming agent.

The prod. is then conc. or dried to give a powder. (J50132139) (9pp)

MITG D13 74613 Y/42 = J8 1042-335
Polypropylene and polystyrene sepn. from sea weed culture screens - by crushing the screens, suspending in water contg. wetting agent and aerating to separate polypropylene by flotation

MITSUMI MINING & SMELTING 14.03.74-JP-029338
A35 + P41 P43 (A13 A17) (03.10.81) *J50122-467 + A23p-01
B05d-01/03 B05d-03 B29c-29 C03f-11

Used sea weed culture screens made of fine polypropylene and polystyrene tubes are crushed and suspended in water contg. a wetting agent Na lignosulphonate, and aerated. A flotation agent e.g. pine oil is added to the remaining suspension and aerated to separate polystyrene. The remaining liq. contains sea weed. The sepd. polypropylene and polystyrene is recyclable. (J50122467) (2pp)

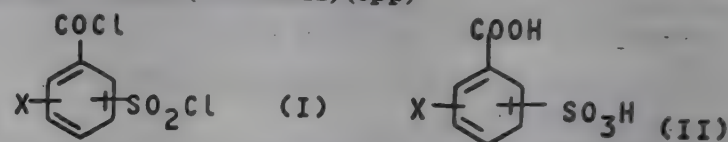
IHAR D13 01379 Y/01 = J8 1042-586
Chlorosulphonyl benzoyl chloride prepn. - by reacting sulphocarboxylic acid with phosgene in the presence of DMF

IHARA CHEM IND 11.06.75-JP-070311
B05 C03 (06.10.81) *NL7603-612 C07c-143/70
11.06.75 as 070311 (TM)

Prepn. of chlorosulphonylbenzoyl chlorides of formula (I): (where X is H, halogen or NO₂) comprises reacting COCl₂ with an aromatic sulphocarboxylic acid of formula (II) or an alkali(ne earth) metal salt thereof, in the presence of DMF.

Cpds. (I) are intermediates for pharmaceuticals, foodstuffs additives and agricultural chemicals. For example, reaction of o-sulphobenzoic acid with COCl₂, gives a mixt. of o-chlorosulphonylbenzoyl chloride and dichlorotolyl sultone, which can be converted to saccharin.

The process gives high yields (e.g. 89-95%) using an inexpensive chlorinating agent (COCl₂). The prods. are pure enough for further conversion. (J51146422) (6pp)



TANA D13 21480 X/12 = J8 1042-640
Antioxidants for oils and fats - contg. dipeptide

TANABE SEIYAKU KK 24.07.74-JP-085493
E16 (06.10.81) *J51013-806 C11b-05 + A231-03/34
24.07.74 as 085493 (MR)

The antioxidant contains a dipeptide (I)

$\text{R1.C}(\text{NH}_2)\text{H.CO.NH}(\text{R2})\text{CH}_2\text{COOH}$

R1 is alkyl 3-4C branched; and R2 is H or methyl, e.g. leucylglycine, isoleucylglycine etc.

The dipeptide (I) has strong antioxidation activity towards oils and fats, and is quite harmless to human body, as it consists of amino acids which are natural ingredients of foods. (J51013806) (2pp)

RENJ D13 62769 A/35 = J8 1042-888
Maintaining freshness of vegetables and fruit - by packaging in EVA copolymer film together with adsorbent for gas

RENGO KK 05.01.77-JP-000287
A92 E36 (A17) (07.10.81) *J53086-058 A23b-07
05.01.77 as 000287 (5DH)

Process comprises packaging vegetables and fruit together with an adsorbent for gas, using a film of thickness 20-50 microns composed of EVA copolymer having a vinyl acetate content of 5-30 w/w%.

The specific vinyl acetate content and thickness ensures that the content of CO₂ gas and steam in the packages is maintained at the right level and that the adsorbent can adsorb the organic gas, e.g. ethylene aldehyde, alcohol, etc. which is released from vegetables and fruit by respiration and causes their deterioration. (J53086058) (4pp)

WAKD D13 06826 B/04 = J8 1042-881
Prepn. of food which is stable under heating in acid - by adding organic acid-polyhydric alcohol ester to a soln. of milk serum protein etc.

WADAKO KK 19.05.77-JP-058051
(07.10.81) *J53142-562 A23c-21/08
19.05.77 as 058051 (5RH)

Method comprises adding organic acid-polyhydric alcohol ester more than 10% to soln. on non-denatured milk serum protein, dissolving or dispersion at least 1 of fat, sugar, emulsifier, organic acid, etc. and opt. powdering by spray-drying, etc.

A liq. which is similar to milk in taste and flavour and appearance can be obtd. and it is not coagulated at heating in under acidic condition. The prod. can be applied for preparing drinks or the ice cakes contg. fruit juice, fermented milk, etc (J53142562) (3pp)

AINS. D13 - 54413 A/30 = J8 1042-899
Cream base compn. for confectionery - is composed of liq gelling base contg. methoxy pectin, organic acid and water, and pasty base of sugar, flour and water

AIN SHOKUHHN KK 04.12.76-JP-145770

Compsn. comprises (a) a liq. gelling base containing low methoxypectin, organic acid and water, and (b) a pasty base contg. sugar, flour and water.

Cream for confectionery use can be obtd. by mixing the gelling base and the pasty base and kneading the mixt. with milk. The mixt. is rapidly gelled and a homogeneous cream with good dimensional stability and texture is obtd. Water does not separate out from the mixt. (J53069859) (4pp)

PERF. ★ D13 80995 D/44 ★ NL 8101-071
Cheese prodn. unit comprising battery moulds - which have outer frame divided into individual moulds each having cross-plate which acts as based as press (SE 5.10.81)

PERFORA ROSSE H A/S 05.03.80-DK-000949

P13 (01.10.81) A01j-25/06

05.03.81 as 001071 (1161PW)

The pressed cheese production unit uses battery moulds which successively pass a filling station a primary turning station, a press, a discharge station, a secondary turning station, and a cleaning section.

Each battery mould comprises an outer frame which is divided into a number of individual moulds by intersecting sepg. walls. The individual moulds each have a cross plate which is limitedly movable, serving firstly as a base and then, after the first turning process, as a press plate for the cheese mass.

This enables the cheese to be collected in the tops of each individual mould and easily removed in the discharge station. (12pp)

UYKA = ★ D13 81246 D/44 ★ SU -802-261
Surface active polyhydroxylated ester cpds. - are prepd. by reacting vegetable oil tri:glyceride with polyglycerol in presence of potassium carbonate

KALININ UNIV 19.04.77-SU-487620

E17 (D21) (07.02.81) C07c-67/03 C07c-69/18

19.05.77 as 487620 (938GW)

Polyhydroxylated esters based nonionic surfactants are used in food, cosmetics and textile mfr. They are prepd. by reacting triglycerides of vegetable oils and fats with polyglycerol (pref. di-, tri-, tetra-, hexa-, octa-, nona- or desa-glycerol) in the presence of a catalyst.

The reaction is conducted at 120-140 deg. C. in the presence of potassium carbonate catalyst using triglyceride: polyglycerol molar ratio of 1:(0.3-12) and passing nitrogen gas stream. Pref. reaction mixt. contg. 0.5-5.0 wt. % catalyst is stirred for 7-24 hrs. and the prod. is first neutralised with hydrochloric acid and then treated with activated carbon to give the final prod. (a viscous light-brown liquid) in 93-100% yield. Bul.5/7.2.81. (7pp)

HETO ★ D13 81269 D/44 ★ SU -802-290
Prepn. of carboxylated chitosan deriv. - by two-stage acylation of chitosan with di:carboxylic acid anhydride

HETEROORG CPDS AS USSR 14.07.78-SU-644110

A11 B04 (A96 A97) (07.02.81) C08b-37/08

14.07.78 as 644110 (114VE)

Prepn. of carboxylated chitosan derivs. (e.g. for chemical, foodstuff and medical industries) by acylation of chitosan with dicarboxylic acid anhydride increases degree of acylation and uniformity of prod. by acylating with 0.5-1 moles anhydride per mole chitosan amino-gp. at pH 4-5.5 and then treating the prepd. polyampholyte with 0.5-2 moles anhydride per mole chitosan amino-gps. at pH 7.5-10.

Typically, a soln. of 1g chitosan in 100ml acetic buffer (at pH 5.5) is treated with maleic anhydride (MA) (using 1 mole MA per mole of amino gp.) in min. amt. of absolute methanol for 15 mins. before pouring into methanol. Washing and drying gives polyampholyte powder which is converted into 1.2g Na-salt (by NaOH dialysis) and has degree of acylation 48%. Subsequent reaction with MA (using 1 mole MA per mole amino gp.) at pH 7.5 gives Na-salt of carboxylated chitosan. Bul.5/7.2.81. (4pp)

MICR = ★ D13 81325 D/44 ★ SU -802-360
Determin. of antibiotic grisin in fodder additives - by pptn. with ammonium molybdate in acid soln., followed by Elson-Morgan reaction

MICROBIOL PLANT PRO 24.07.79-SU-807899

B04 C03 (15.02.81) C12p-19/54 C12r-01/54

24.07.79 as 807899 (70VE)

Antibiotic grisin is determined in fodder additives by sepn. from aq. extracts and determ. by the Elson-Morgan reaction. This process is accelerated and its accuracy is improved by precipitating the grisin with a 0.7-1.2% soln. of (NH₄)₂MoO₄ at pH 1-3.

Antibiotic grisin is produced by *Actinomyces griseus*; it belongs to the streptotricin antibiotic gp. A calibrated chart is prepd. The errors are in average 5-7%. The optical density is measured photo-colorimetrically with a green filter. Bul.

5/7.2.81. (2pp)

SNOW D13 14041 D/09 = US 4294-018
Distributor for band type vacuum dryer - having inner tube with holes of increasing size from end and outer tube with uniformly sized holes

SNOW BRAND MILK PRODUCTS 25.07.79-JP-094731

J08 Q76 (13.10.81) *DE3018-934 + F26b-15/10

09.04.80 as 138812 (006TM)

Continuous vacuum drier esp. for sweetened condensed milk, comprises a vacuum chamber with a moving belt above is a distributor pipe with inner and outer tubes.

The outer tube has a row of equal dia nozzles at its underside and both its ends are closed. The inner tube has an inlet at one end and its other is closed. Nozzles in the top of the inner tube are progressively larger from the inlet end to the closed end. Distribution from the nozzles of the other tube is uniform. (7pp)

REDH/ ★ D13 81468 D/44 ★ US 4294-168
Insertable article for altering cure rate and chemical compsn. - of object comprises elongate shaft holding chemicals for leaching outwardly into object

REDHEAD WK 10.07.80-US-167773

(13.10.81) A23b-04/02 A23l-01/22

10.07.80 as 167773 (67HM)

Insertable article for altering the cure rate and chemical compsn. of an object e.g. a foamed object or foodstuff, comprises an elongate shaft having recesses along its length with area around each recess contg. chemicals. The shaft has a pointed terminus which facilitates its insertion into the object and the cure rate and chemicals compsn. of the object is altered by the chemicals gradually leaching outwardly from the shaft.

The article comprises an Al shaft having a spiral groove defining recesses and a pointed terminus. Chemicals for altering the chemical compsn. of an object to be cured are deposited on the upper and lower edges of the groove.

Used in altering the flavouring and tenderness of a foodstuff being cooked. (4pp)

INFL ★ D13 81559 D/44 ★ US 4294-708
Enhancing aroma of fabric softener or optical brightener compsns. - by addn. of 1-methyl-4(2-hydroxy-hexyl)-cyclohex-1-ene

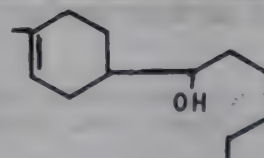
INT FLAVORS & FRAGR INC 08.02.80-US-119889 (20.10.78-US-953128)

E15 (13.10.81) D06m-13/16

08.02.80 as 119889 Div.ex 4235729, 4197328 C.i.p. 4195099 (+2.2.79, 27.6.79-US-008924, 052335) (478AT)

The aroma of fabric softener compsns. or articles, and of optical brightener compsns. is augmented or enhanced by addn. of 0.01-0.5% of an alcohol (I). This is a division of US 4235729.

(I) imparts sweet, green, anisic, natural sweet warm herbaceous clean herbaceous, minty camphoraceous, black pepper, carvone (caraway) and tagette aromas with basil topnotes to fabric softener and optical brightener compsns. (18pp)



(I)

RISC- ★ D13 81579 D/44 ★ US 4294-767
2,5-Di:alkyl-4-hydroxy-3(2H)-furanone(s) prodn. - from corresp. di:alkyl-di:hydro-furanone by process involving ozonolysis

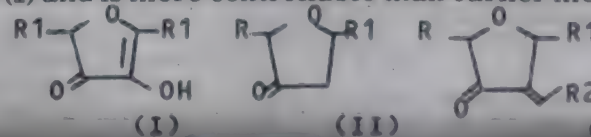
RICERC SCI TECH ALI 21.08.80-US-180179

E13 (13.10.81) C07d-307/32

21.08.80 as 180179 (955HM)

2,5-Dialkyl-4-hydroxy-3(2H)-furanones (I), where R and R₁ are 1-3C alkyl are prepd. by (a) aldol condensn. of 2,5-dialkyl-dihydro 3(2H)-furanone (II) with an aldehyde R₂CHO where R₂ is 1-6C alkyl, isoalkyl or aryl, under basic conditions at minus 10 to 100 deg.C to yield the corresp. aldol cpd.; (b) dehydrating the aldol to form the corresp. exocyclic alkene (III); (c) treating (III) with ozone in a participating solvent which is a 1-6C alcohol, acyl cpd., water, acetone or their mixt. at minus 70 to 30 deg.C to obtain the corresp. hydroperoxyhemiacetal; (d) reducing this to the hemiacetal and (e) refluxing the hemiacetal under acidic conditions.

2,5-Dimethyl-4-hydroxy-3(2H) furanone is a food flavouring cpd. which occurs naturally in pineapple. The process gives good yields of (I) and is more controllable than earlier methods. (5pp)



(I)

(II)

(III)

FARB D13 59652 A/33 = US 4294-827
Penicillins and cephalosporins contg. pyrrolidone gp. - used as broad-spectrum antibacterials and feed additives

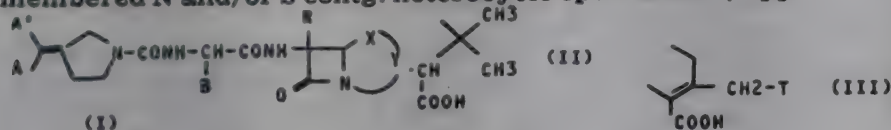
BAYER AG 24.12.76-DE-658905

B02 C02 (13.10.81) *J53079-893 A61k-31/65 C07d-499/68 C07d-501/22

20.12.77 as 862452 (393TM)

Beta-lactam antibiotics of formula (I) and their salts are novel and exhibit antibacterial and growth promoting activity. A and A' are H; up to 5C alkyl opt. substd. by halogen, CN or NO₂; phenyl, naphthyl or furyl; or R₁-X'. X is -CO- or -SO₂-. R₁ is H; up to 5C alkyl opt. substd. by halogen, CN or NO₂; phenyl, naphthyl, thienyl, furyl, pyrrolidyl or piperidyl; NH₂; monoalkylamino or dialkylamino of up to 4C per alkyl. R₁ may be up to 4C alkoxy if X' is -CO-.

R is H or OCH₃. B is phenyl, methylphenyl, chlorophenyl, hydroxyphenyl, furyl, cyclohexadienyl. X is S, SO or SO₂. Y is (II) or (III) in which the C carrying the COOH gp. is bonded to the N atoms of the beta-lactam ring. T is H, 1-4C alkyl-COO, pyridium, aminopyridinium, carbamoyloxy, azido, CN, OH, S-phenyl opt. substd. by halogen, NH₂, lower alkylamino, dilower alkylamino, lower alkyl, cycloalkyl of 3-7 ring C, lower alkoxy, CF₃, phenyl, benzyl or 2-5C acylamino or S-Het. Het is 5-membered N and/or S contg. heterocycle opt. substd. (11pp)



TOKA- D13 13699 X/08 #US 4294-856
Synthetic feed for suckling animals - with part of skimmed milk replaced by liquid fish protein

TOKAI REGIONAL FISH 21.06.74-JP-071071 (04.01.77-US-759491)

C03 (D10) (13.10.81) *J51001-270 + A231-01/33

04.01.77 as 759491 (393PW)

Prodn. of artificial milk substitute for raising piglets and other infant animals comprises (a) crushing meat and viscera of fish and shellfish, (b) digesting the pulp obtd. with protease, (c) heating to inactivate the protease, (d) removing solids and suspended particles successively by screening, centrifuging and filtering the pulp, (e) defatting the liq. obtd. with solvent (pref. cyclohexane)(f) condensing the liq. and (g) reducing it to powder by spray-drying.

Ref. to the powder is added skimmed milk powder, glucose, soybean oil, minor amts. of NaCl, antibiotics, trace elements, vitamins and minerals.

The substitute has better nutritive value than skimmed milk, soybean protein, etc. (9pp)

RALS * D13 81612 D/44 ★US 4294-857
Dog food compsn. contg. proteinaceous and farinaceous material - with added linalool as palatability enhancer

RALSTON PURINA CO 05.12.79-US-100600

C03 (13.10.81) A23k-01

05.12.79 as 100600 (1248AT)

Dog food compsn. comprises a nutritionally balanced mixt. of proteinaceous and farinaceous ingredients together with 0.0001-0.01% linalool (I).

The compsn. pref. contains an edible fat e.g. at 5-20%, and it contains at least 15% protein on a 90% dry matter basis. Typically 0.00025% (I) is present. The food contains less than 50% moisture. The dog food may be coated with the edible fat. The (I)

may be applied to food compsn. without addn. of fat or concurrently with the fat coating, or before or after the fat coating. Commercial (I) of purity at least 92% is suitable for use. The food compsns. contain the usual proteinaceous materials found in pet foods, e.g. soyabean, cottonseed or peanut protein, fresh meat, fish meal, bone meal, yeast, wheat and corn gluten. The farinaceous materials include grains.

The (I) is a palatability enhancer in dog foods of the dry or intermediate moisture types; foods contg. (I) one easily prepd. on the commercial scale. (8pp)

MITO * D13 81615 D/44 ★US 4294-861
Separation of pulp and juice from citrus fruits - by action of pressurised fluid jet on cut fruit supported by net

MITSUBISHI JUKOGYO(PREF-) 27.06.80-US-163554

(06.03.79-US-017853)

(13.10.81) A231-02/26

27.06.80 as 163554 (295NS)

Citrus fruits are continuously processed to separate the pulp and juice from the fruit. The fruit is initially divided into pieces which are supported between an endless chain and a perforated net. The net is positioned between the fruit and fluid injection nozzles. The fruit pieces are continuously moved in a linear path along the net by the chain. The fluid from the nozzles is delivered against the fruit to separate the pulp and juice which pass through the net.

The method may be used to produce a drink from any citrus fruit but is partic. for use with tangerines. The sepn. is easily effected without the use of chemicals. (10pp)

INFL * D13 81616 D/44 ★US 4294-863
Enhancing or augmenting the aroma or taste of guava foodstuffs - with compsns. contg. nor-methyl jasmonate with dihydro-nor-methyl jasmonate

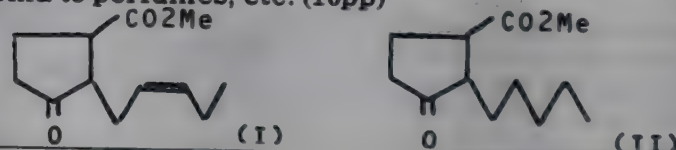
INT FLAVORS & FRAGR INC 05.06.80-US-156688 (21.12.79-US-106158)

E15 (13.10.81) A231-01/23

05.06.81 as 156688 (478NS)

The aroma or taste of a guava-flavoured foodstuff is augmented or enhanced by addn. of 0.1-0.5 ppm of a mixt. of nor-methyl jasmonate (I) and dihydro-nor-methyl jasmonate (II) (wt. ratio (I): (II) is 50:50). The (I)-(II) mixt. is produced by hydrogenation of (I) at 10-100 deg.C/5-80 psig over 0.1-10% by wt. (of (I) of a catalyst (Raney Ni, Pd/C, or Pd/CaCO₃).

The (I)-(II) mixt. has an excellent jasmine/lactone aroma and taste profile, and is useful for augmenting or enhancing the aroma or taste of guava and other tropical fruit-flavoured foodstuffs. In addn., a mixt. of (II) and methyl jasmonate is useful in augmenting or enhancing the aroma or taste of pear or peach flavoured foodstuffs. (I) per se gives an intense floral/jasmine-like aroma to perfumes, etc. (16pp)



See Also

D15 DS2960474

D16 J81042269

D16 US4294929

D15 NL8001214

D16 J81042273

D18 EPG001887

D16 DE3015261

D16 J81042353

D14: FOODSTUFF MACHINERY

STEE/ * D14 79774 D/44 ★BE-889-253
Stirring unit for preparing rice-milk etc. - has motor with plate supported on pan rim and stirrer rotating at 60 rpm just above pan bottom

STEEMANS WR 17.06.81-BE-889253

X27 P28 (16.10.81) A47j B01f

17.06.81 as 889253 (1190KB)

The stirring unit comprises an electric motor with a horizontal plate for supporting the unit on the rim of a saucepan and a vertical output shaft to which the stirrer can be secured such that it rotates at a level just above the bottom of the pan thus preventing caking and burning of the contents.

The stirrer may be telescopically adjustable and may be securable to the motor shaft via bolted flanges, or by other means such as spring-loaded balls or levers, or a magnetic coupling. It may be shaped as an inverted T or an open rectangle. The motor pref. rotates at approximately one revolution per second. (12pp)

BROW. * D14 D/44 ★BR 8103-089
Rotary fruit feeder for juice extractor
BROWN INT CORP 07.04.80-US-138131
(13.10.81) A23n-01/02

WANS. * D14 80181 D/44 ★FR 2478-484
Cleaner for exhaust fumes from industrial food frying plant etc. - includes filter, spray condenser and exhaust fan to chimney
WANSON ETS 19.03.80-FR-006147

P28 (25.09.81) A47j-37/12 B01d-53
19.03.80 as 006147 (448KB)

The fumes are drawn into a hood which delivers through a filter which passes only water vapour and stops oil vapour and droplets for separate collection.

The water vapour passing the filter enters the spray condenser where the water vapour is condensed and collected. The

remaining, non-condensable vapours are drawn from the condenser, through a fan to a chimney exhausting to atmos. The oil etc. retained by the filter is pref. discharged via an oil/water separator.

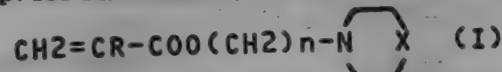
Used in cleaning exhaust fumes, partic. from industrial food drying installations, in order to reduce atmos. pollution. Compact installation gives highly efficient fume cleaning, and reduction of waste heat by recycling condensate. (7pp)

EWOS D14 72730 A/41 = GB 1601-521
Acrylic polymers with pH dependent solubility - useful for enteric coatings for ruminant feedstuffs or therapeutic agents

EWOS AB (ASTR) 04.04.77-SE-003901
A14 C03 (A97) (28.10.81) *BE-865-654 A23k-01/18 A61k-09/58 C08f-220
31.03.78 as 012808 (963PW)

Copolymer is claimed which is derived from (a) methyl methacrylate (b) at least 0.5 mol.% of at least 1 monomer of formula $R_3-OOC-CR_4:CH_2$ where R_3 is opt. branched 4-18C alkyl and R_4 is H or CH_3 ; and (c) 30-50 mol.% of a monomer of formula (I) where R is H, or CH_3 ; X is $:CH_2$ or $=O$ and n is 1-4 and/or 20-30 mol.% of a monomer of formula $CH_2:CR-COO(CH_2)_m-NR_1R_2$ where R is H or CH_3 ; R_1 and R_2 are H, CH_3 , C_2H_5 , C_3H_7 , iso- C_3H_7 , iso- C_4H_9 , t- C_4H_9 , or n-butyl, where R_1 and R_2 are not both H and m is 1-4. Copolymer contains 2.5-3.3 wt.% nitrogen.

The copolymer is one which in aq. media is not soluble or hardly soluble at pH 5 and above but is (almost) completely soluble at pH below 3, pref. below 4. It may be used to coat feedstuffs, esp. for ruminants, food and drugs. (9pp)



KLEI/ ★ D14 80980 D/44 ★ NL 8001-404
Filter for coffee etc. - has housing with top lid and filter element held above perforated bottom which serves as second stage filter
KLEINPENNING W 07.03.80-NL-001404
P28 (01.10.81) A47j-31/06 B01d-35
07.03.80 as 001404 (1190KB)

The filter unit, such as may be used for making coffee, comprises a housing with top cover, a filter element and a bottom wall. The bottom wall serves to secure the element in the housing and is perforated and provided with channels so that it serves as a second-stage filter and distributes the liquid after this has passed through the element.

The channels may be formed by recesses in the upper surface of the bottom wall whilst the perforations are provided in these recesses. The element is pref. raised above this upper surface. (5pp)

BEAU/ D14 51922 D/29 = US 4294-167
Preserving food in can with removable lid - held in place by vacuum created by pressure cooking

BEAUVAIS M P 26.12.79-US-107425
P28 (13.10.81) *EP--31-578 A47j-27/08
26.12.79 as 107425 (006PW)

Domestic canning appts., for canning foods etc. in a container with its lid held on by ambient pressure. The container is held in an enclosure formed by itself, and a pressure cover, and a container holder which seals against the container sides. The lid is resiliently held on the container, pref. by a spring on the cover, while the whole assembly is heated to sterilise the food.

When the assembly is cooled the pressure inside the container becomes less than ambient and the lid is thereby sealed on. (7pp)

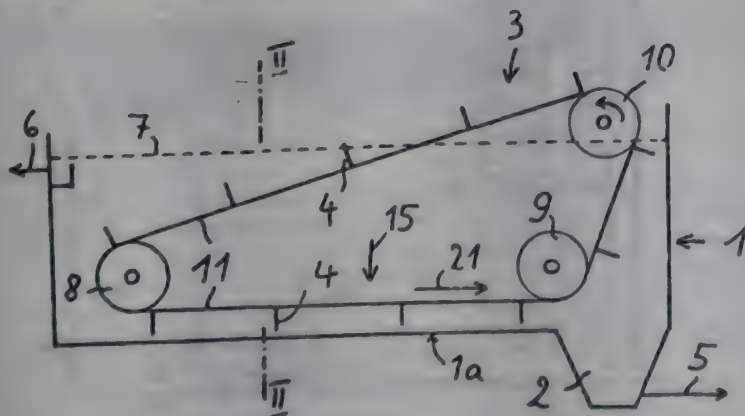
D15: WATER TREATMENT

YUAS/ ★ D15 D/44 ★ BR 8002-156
Continuous flow bio-gas digester and collector
YUASAI 28.03.80-BR-002156
(13.10.81) C02f-03 C05f-03/06

METG ★ D15 79877 D/44 ★ DE 3013-541
Sludge removal from sewage settling tank bottom - by pusher plates mounted on continuously driven cable
METALLGESELLSCHAFT AG 09.04.80-DE-013541
(22.10.81) B01d-21/18
09.04.80 as 013541 (1480DH)

The sludge which sinks to the bottom of a sewage settling tank is pushed into a lower trough for subsequent removal, with the pushing force provided by a series of spaced continuously travelling transverse pusher plates mounted on an endless cable driven by rollers. Each plate is pivotally attached to the cable by a set of hinged connected inflexible bars which engage the cable at two points, one ahead of, the other behind, the plate.

The system normally uses only one cable and is simpler and lighter than known devices, usually with two chains, esp. for tanks 10 m or more in width. At least the driven roller (10) projects above the liq. surface. At the plate ends are rollers running in channels of L or U shape, depending on the degree of support and control needed. The cable is plastic or high grade steel coated with plastic. (7pp Dwg.No.1)



WEIS- ★ D15 79961 D/44 ★ DE 3015-246
Composting municipal clarifying sludge - after adding comminuted waste paper shreds as carbon-carrier, swelling and water-extn., facilitates printers ink and heavy metals removal
GEBR WEISS KG 21.04.80-DE-015246
(22.10.81) C05f-09
21.04.80 as 015246 (200MR)

In composting municipal clarifying sludge, waste paper is used as the exclusive C-carrier for setting a C/N ratio suitable for rotting. After comminuting to irregular coarse shreds, the waste paper is added to the non-dehydrated clarifying sludge until C/N ratio is 20:1 to 25:1. The sludge obtd is then swelled 2-10 hrs., dehydrated to 30% solids content and composted.

Waste paper is cheaper and more easily available than the previously used sawdust. The paper shreds and liq. sludge form an easily dehydratable mixt., yielding a higher solids content. In water-extn., the paper shreds absorb suspended materials and act as flocking auxiliaries. The dehydrated mixt can be disposed of as pellets or composted.

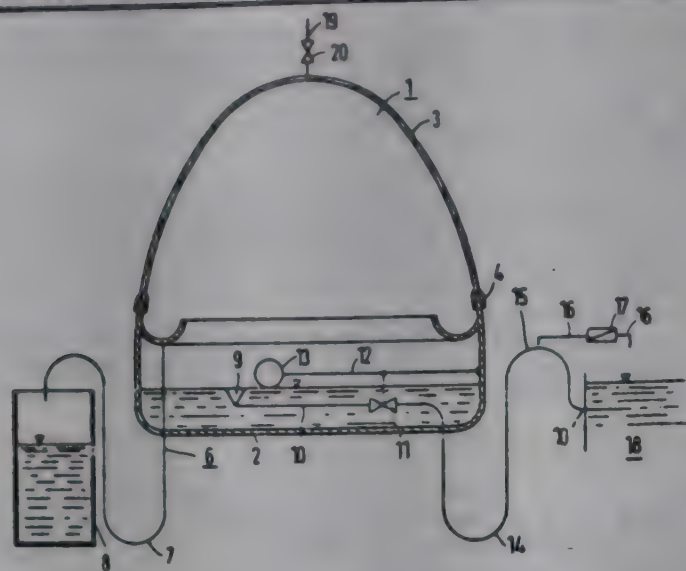
Printers' ink on waste paper can be removed by standard flotation e.g. with 3% resin soaps and 1.5-3% cerosine. Heavy metals in sludge can be pptd mechanically, electrolytically and/or chemically. Fresh compost is pref added to the sludge before mechanical water etxn. (7pp)

KRUN ★ D15 79964 D/44 ★ DE 3015-254
Solar heat powered desalination system - with inverted siphons joining transparent dome to condensate tank and sea-water supply

KRAFTWERK UNION AG 21.04.80-DE-015254
(22.10.81) C02f-01/14
21.04.80 as 015254 (39DH)

A totally enclosed container (1) of transport material (e.g. glass) is fitted with a gutter (4) to collect the condensate which is taken through an inverted siphon (7) to a storage container (8). Seawater enters through the outlet (9) of the pipe (10) with the inverted siphon (14) and with a valve (12), controlled by the float (13).

A non-return valve (17) is fitted to the highest point of the siphon (14). A pressure release valve (20) is added to the dome (3) of the container. The device operates over long periods free from maintenance and without extraneous energy input. (10pp Dwg.No.1)



WASS ★ D15 79976 D/44 ★ DE 3045-712
Enzymatic sludge and liq. manure decomposition - using complexing cpd. together with *Bacillus subtilis*-derived enzyme compsn. contg. protease, amylase and glucanase

FORSCH WASSERTECHNI 07.01.80-DD-218327

(22.10.81) C02f-11/02

04.12.80 as 045712 (200HM)

Organic sludge and liq. manure are decomposed by treatment with a cytolytic *Bacillus subtilis*-derived enzyme compsn., contg. protease, amylase and other enzymes in addn to beat-glucanase, in the presence of a complexing cpd. The prod. is sped into a stabilised odourless sludge and a liq. phase.

Enzyme quantity used is 3-10 mg/l. The complexing cpd. is esp. di-Na di-hydrogen diamine tetraacetate used in a proportion corresp. to 36-70% of enzyme quantity used. Incubation pref. takes 0.5-15 hrs at 10-50 deg C and pH 5-8. Complexing cpd. addn. reduces enzyme requirement to about 90%. Energy consumption is reduced. (6pp)

SIMC D15 79430 B/44 = DS 2960-474
Removal of metallic impurities from sewage sludge - by dissolution with aq. acid and oxidising agent, and sepn. of impurity-contg. liquids

SIMON ENGINEERING LTD 15.04.78-GB-014901

C03 (D13) (22.10.81) *EP--5-011 C02f-11/06

26.03.79 as 960474 Based on EPG005011 (393AT)

Removal of metallic impurities from sewage sludge comprises (a) acidifying the sludge in the presence of oxidising agent to solubilise the metallic impurities, (b) adding flocculating agent and removing part of the liq. component contg. the solubilised metallic impurities, (c) replacing the removed liq. with aq. liq. which is substantially free from metallic impurities, and (d) again removing the liq. component mechanically to remove still further residual metallic impurities.

Pref. the sludge is acidified to pH 1-1.5. Replacement liq. is pref. removed by drainage or sedimentation. Acidification of the sludge is pref. with HCl and the oxidn. agent is H₂O₂.

Method removes ca. 98% of the metallic impurities. (5pp)

FARB D15 23908 C/14 = DS 2960-489
Thin film contact dryer - with swash plates on vertical shaft carrying cylindrical distributor elements

BAYER AG 16.09.78-DE-840481

J01 + Q76 (22.10.81) *DE2840-481 B01d-01/24 C09b-67 F26b-03/26

05.09.79 as 960489 Based on EPG009173 (236AT)

A thin film contact dryer comprises typically a cylindrical vertical column with top inlet for feed, bottom outlet for dried prod. and lateral top outlet for vapour.

A central, vertical-axis rotor carries a number of parallel wobble plates, while between successive plates loosely fitting sweeper discs or devices resting on the plates are in local contact with the inner face of the cylindrical column. Thus as the rotor revolves these sweeper discs tilt up and down, also revolve relative to the wobble plates and sweep every point of the internal surface of the column.

With this arrangement, sticky build-up of the drying prod. at certain stages of the drying process is effectively prevented by the scraping action over the entire internal surface of the column. (5pp)

HAMM ★ D15 79983 D/44 ★ EP --37-88
Oil and water separator having two successive chambers - each with light liq. layer at surface and wide interconnecting duct giving slow movement and self regulation

HAMMERSCHMITT N 23.08.80-DE-023384 (14.04.80-DE 014204)

J01 (21.10.81) B01d-17/02

22.12.80 as 108098 (236MR) (G) FR--86277 DE2853725 CH-542154 D-586728 DE2800061 DS1484845 DS-651986 E(AT BE CH DE FR GB LI LU NL SE)

A method of continuously separating components of a liq. mixt. having different densities, esp. sepg. oil or petroleum from water, uses an inlet chamber for the mixt. and an open-bottomed sepg. chamber penetrating into and below the surface level of the heavier liq.

A substantially constant level of the heavy liq. is maintained by the heavy liq. outlet, and by regulating the inlet and discharge rates. The mixt. entering passes through a floating layer of the lighter liq. and in the lower region of the sepg. chamber additional sepn. and settlement takes place of the lighter liq. from this sepg. chamber liq. passes beneath a comparatively still sepg. chamber before it reaches the downpipe leading to the heavy liq. outlet. Both the chambers have light liq. outlets above the heavy liq. outlet level.

Pref., a preliminary separator is mounted upstream of the first chamber particularly for the sepg. out of sludge.

The sepg. procedure is largely self-regulating and considerably simpler than in previous arrangements. A sepn. efficiency of greater than 97% is achieved. (80pp)

HAMM ★ D15 79991 D/44 ★ EP --37-88
Oil and water separator has two successive chambers - with guide plates in first to increase cross section and reduce flow speed and low level oil alarm in second

HAMMERSCHMITT N 00.00.81-EP-101179 (14.04.80-DE 014204)

J01 (21.10.81) B01d-17/02

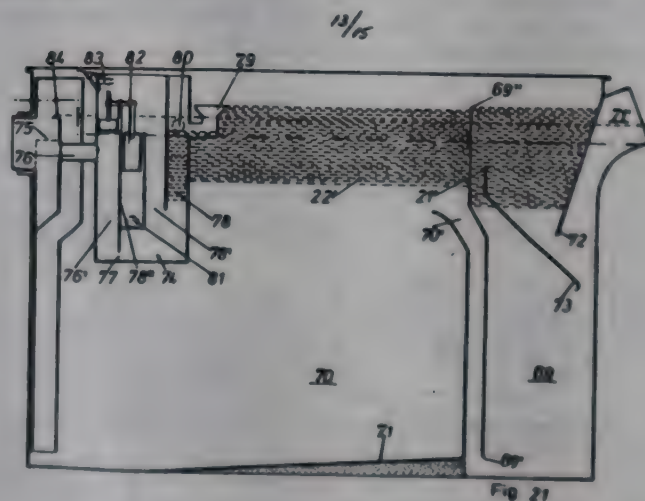
22.12.80 as 101179 (236RH) (G) DE2201273 US3862040 GB123402 US2232709 DE2610773 EP--16517 DS1038683 DS-586728 DE285372 E(AT BE CH DE FR GB IT LI LU NL SE)

Continuous sepn. of components of different densities in a liq. mixt., esp. for sepg. oil or petroleum from water, opt. also for sepg. sludge, uses an inlet comprising a bottom-open bell, a downpipe at a distance from the bell for discharging the water and an oil outlet at a higher level than the water outlet. There are also two safety oil overflows.

The liquid mixt., after flowing through an inlet bell or after flowing along guide surfaces (72,73) enters a space of large cross section in which the flow speed is stilled; the oil components ascend on the other side of the guide surfaces (73); the dimensions of the inlet region are such that there is sufficient space as a first sepg. chamber to allow for the max. fluctuations in the water level.

In a pref. embodiment (as shown) the oil is continuously removed from a safety outlet (74) comprising a vessel with sepg. walls, a cranked pipe with height-adjustable oil inlet funnel (79) normal oil outlet (80), a safety oil outlet (81) and a lever mechanism (82,83) for an alarm system. This is connected to a water level outlet (75) at a lower, fixed level, independent of the water level fluctuations, so that when faults occur in the oil outlet (80) the oil column (78) can build up downwards, flow beneath a partition and ascend in a duct (78) leading to the safety outlet (81) and the alarm.

Considerable fluctuations in the inlet level are possible without mixing of the constituents. A high efficiency of sepn. is achieved. (52pp Dwg.No.21)



BADI ★ D15 80041 D/44 ★EP --38-008
Polyacrylate, PVA or CMC size regenerating bath purificn. - by aeration and removal of ppte. formed

BASF AG 11.04.80-DE-013925

A87 F06 (21.10.81) C02f-03/12 D06l-01/14 D06m-15/08

07.04.81 as 102598 (200AT) (G) 1.Jnl.Ref E(AT BE CH DE FR GB IT LI NL)

In purifying the regenerating baths of sizes which are biologically decomposed with difficulty, the bath is aerated, on size recovery, to prevent the molecular O₂ content from falling below 2 mg/l. After aerating for at least 1 day, the ppte. obtd. is sepd.

The sizes are esp. a polyacrylate or PVA size or a CMC size having a degree of substit. over 0.5. Aeration must be initiated before the onset of putrefaction and should be continued until the sizing bath is reqd. for reuse.

Constant bath aeration and ppte. separation remove up to 90% imp impurities. An odourless sizing bath is obtd. which can be used directly, conc. or replenished for re-use. Size properties are unchanged. The process can replace ultra-filtration. (22pp)

SCHD D15 77951 D/43 =EP --38-017
Waste water aeration in equaliser and storage basins - for partial biological degradation of industrial waste water dirt load at constant redox potential

SCHERING AG 10.04.80-DE-013881

(21.10.81) *DE3013-881 C02f-03/02

08.04.81 as 002627 (200HM) (G) DE2326224 DE2820086 E(AT BE CH DE FR GB IT LI LU NL SE)

In the partial biological degradation of an industrial waste water dirt load by aeration in an equalising- and storage basin, aeration takes place at a constant redox potential at m-250 to m-500 mV, at pH 7. Aeration is controlled over the whole measured redox potential and the redox potential is thus kept constant. Min. material required for bio-mass growth is added to the waste water in quantities such that bio-mass losses resulting from dilution are balanced out and the redox potential does not deviate from the constant value. The addn. is controlled in function of redox potential deviation from the theoretical value and of aera intensity.

Degradation rates up to 50% are achieved in over 24 hrs, without flocculation, as opposed to 10-20% by a standard process. The O₂ transfer values are increased to 35 kg O₂/hr, as opposed to 20 kg O₂/hr with a standard aeration device. (7pp)

PICH/ ★ D15 80142 D/44 ★EP --38-235
Treatment of acidic waste water - by conversion to mortar with fly ash and lime based binder

PICHAT P 09.04.80-FR-007917

L02 (21.10.81) C02f-11 C04b-31

25.03.81 as 400468 (367NS) (F) FR2146700 FR2320266 US4116705 US4149968 FR2278648 FR2286116 US2815293 E(BE CH DE GB IT LI NL SE)

Treatment of highly acidic waste water (pH not more than 2) to obtain a solid material which is stable, non-polluting and resistant to leaching by water is carried out by mixing the waste water with fly ash to form a paste, neutralising the paste, and adding a lime-based binder to produce a mortar-like material, which is pref. transported to its ultimate destination before setting. The fly ash is pref. used in an amt. of 30-260 pts.wt. per 100 pts.wt. of waste water. The waste water is pref. mixed with the fly ash at 0-100 deg.C under agitation and then neutralised by adding CaCO₃ (e.g. as crushed chalk or limestone) to pH 4 and then adding lime (as quicklime or slaked lime) to pH 7.

The mortar can be used as a building material. Due to activation of the fly ash by the acid in the waste water, it sets to a hard mass with high compressive strength and good resistance to leaching of metal cations. (16pp)

CTBC- ★ D15 80208 D/44 ★FR 2478-863
Absorbent cpd. e.g. for hydrocarbon(s) - comprises epoxy foam powder with outer open cell and inner closed cell particles with floating properties in water

CTB CHAUDRON TUYAUT 20.03.80-FR-006548

A87 H03 J01 (25.09.81) C09k-03/32

20.03.80 as 006548 (950AS)

Absorbent cpd. comprises a ground epoxy foam powder in which each particle contains peripheral, wettable, open cells and internal closed cells imparting good floating properties to the particle. Specifically the powder is Mepoxab (RTM). Its properties are high absorption power (2.1/2 times its vol.); it can absorb all hydrocarbons; it does not absorb water; it will float even when saturated with hydrocarbons.

Used for removing oil slick from the surface of water and recovering hydrocarbons, paints, solvents, acidic or basic chemicals, fats and domestic or industrial pollutants from water. (9pp)

KERJ D15 72990 A/41 =GB 1601-128
Harmful oxidisable material oxidn. in aq. solns. - by supplying oxygen and using fuel cell cathode material as catalyst

KERNFORSCHUNGS JULICH 30.03.77-DE-713991

J01 P35 (28.10.81) *DE2713-991 + C02f-01/74

28.03.78 as 012088 (982MR)

The oxidn. of oxidisable harmful material contained in aq. soln. is claimed, while providing as a catalyst a material, other than phthalocyanins which is suitable for cathodes, on which oxygen can be electrochemically reduced in fuel cells. The catalyst consists of solid catalyst material or a coating of the catalyst material on a conductive support. S Pref. the catalyst is metallic, esp. Ni, Raney Ni, Ni-coated activated charcoal, Ag powder, or Raney Ag, Ag-coated activated charcoal or Pt-coated activated charcoal. The harmful material is a cyanide.

The treated soln. is not made highly saline consumption of additional chemicals is avoided. (4pp)

ICIL ★ D15 80253 D/44 ★GB 1601-339
Removing oil from oil-in-water emulsion - using perforated barrier having socks made from melded fibrous structure

IMPERIAL CHEM INDS LTD 18.10.77-GB-043281 (15.03.77-GB-010857)

J01 (28.10.81) B01d-17/04

15.03.77 as 010857 1044AT)

An effluent stream of an emulsion of oil in water is passed into a vessel and through the walls of porous socks each sealed into a perforation in a barrier extending across the vessel. The socks are constructed from a welded fibrous structure with the fibres having particles which exhibit oleophilie and hydrophobic props. on their surfaces. Oil droplets are caused to coalesce and rise to the surface of the stream for removal.

Used for removing oil from an oil in water emulsion. (4pp)

ASAE ★ D15 80259 D/44 ★GB 1601-350
Purificn. of palm oil mill waste water - by centrifugation before biological treatment

ASAHI DENKA KOGYO 30.06.77-JP-078391

(D23) (28.10.81) C02f-01/38 C02f-03/02

26.05.78 as 023321 (367NS)

Purificn. of waste water discharged from the sludge trap of a palm oil mill is carried out by centrifuging the waste water and subjecting the centrifuge discharge water to biological treatment.

Centrifugation efficiently removes oil and suspended solids (SS) and also reduces COD and BOD values, thus reducing the load on the biological treatment unit.

In a pref. process, waste water from the sludge trap (1) is processed in a centrifuge (A) and the discharge water is passed to a static separator (B) to remove more sludge. The water from the static separator is then mixed with discharge water from the steriliser (2) and hydrocyclone (3) of the palm oil mill in a mixing zone (C), and the mixt. is passed to an activated sludge unit (D). Excess sludge from the activated sludge unit can be returned to the centrifuge, and water from the activated sludge can be used to dilute the discharge water in the mixing zone. (8pp)

ARMA- D15 72835 A/41 #GB 1601-380
Purificn. of esp. oil polluted water - by upflow through bed of elastically deformable particles regenerated with raw water

ARMAFILT EGYESULT (EGYE) 06.06.78-BE-867883

(31.05.78-GB-025203)

(28.10.81) *BE-867-883 B01d-29/08 + C02f-09

31.05.78 as 025203 (006MR)

Effluents purificn. appts. comprises a vessel with a central filter section above a reaction space and below a purified-liq. space.

The filter section houses a regeneratable filter insert between upper and lower filter plates. The reaction space has feed pipes for effluent and for flocculating agent, and also a sludge drainage pipe.

Pref. the filter section has layers of particles between perforated plates, the particles being porous material such as foamed plastics. The filter is periodically back-washed with esp. some purified liq. Used to produce drinking or industrial water from oily effluents. (9pp)

MOPO = D15 86099 B/48 #GB 1601-382
Thermal disposal of effluents - by adding surfactants and combustible gas and burning produced froth

MOSCOW POWER INST 18.05.78-DE-821782 (20.04.78-GB-015610)

J09 + Q73 (28.10.81) *DE2821-782 ÷ F23g-07/04

20.04.78 as 015610 (006MR)

Impurities are removed from waste water by adding a surfactant and passing gaseous fuel into the water to generate foam with bubbles entrapping suspended impurities.

The foam is then burnt e.g. in a combustion chamber at the top of a treatment column, in which pref. ingoing waste water is all

converted to foam. (3pp)

KEEF/ D15 73104 A/41 = GB 1801-518
Reverse osmosis device for water purificn. - with pump, differential pressure absorber and semipermeable membrane tank

KEEFER BG 28.03.77-US-782540

J01 Q56 + Q55 Q65 (28.10.81) *DE2812-761 B01d-13 C02f-01/44 F04b-19/04

20.03.78 as 010866 (006TM)

Membrane sepn. appts. for reverse osmosis processes, esp. for water desalination and purification, incorporates a reversing pump which functions to supply liquid continuously to the membranes, via valves which are operated automatically by liquid press. generated by the pump on both its strokes.

Pref. a pressure-sensitive piston operates a respective valve via a transmission lever. Low energy input is needed, esp. for manual or wind-powered domestic appts. (16pp)

KEEF/ D15 73104 A/41 = GB 1801-518
Reverse osmosis device for water purificn. - with pump, differential pressure absorber and semipermeable membrane tank

KEEFER BG 28.03.77-US-782540

J01 Q56 + Q55 Q65 (28.10.81) *DE2812-761 B01d-13 C02f-01/44 F04b-19/04

00.00.80 as 030531 Div.ex 1601518 filed 20.3.78 (006TM)

Membrane sepn. appts. for reverse osmosis processes, esp. for water desalination and purification, incorporates a double-acting pump which the piston divides into a pumping chamber for feed liquid and an expansion chamber for liquid rejected by the membrane.

The piston rod has different dia. in the two chambers, for pressure equalisation purposes by vol. differences as between the lighter feed liquid and denser reject liquid so that pressures required to operate the valves simultaneously are equal. Low energy input is needed, esp. for manual or wind-powered domestic appts. (14pp)

EAUC- * D15 80286 D/44 *GB 2074-037
Filter bed for liq. - has layers of coarse and fine particulate material with screens and distributor plate for enhancing even flow distribution

L'EAU CLAIRE SYSTEM 03.04.80-US-137479

(28.10.81) B01d-29/08

17.11.80 as 036866 (67AT)

The filter bed comprises a series of layers of particulate material, at least one layer consisting of fine particulate material which becomes fluidised during purging and at least one layer consisting of material too coarse to be fluidised during purging and positioned beneath the layer of fine material. Between adjacent layers of coarse and fine material is a lower screen having openings which are too small to allow passage of the coarse material.

An upper screen located on top of the layer of fine material has openings large enough to allow passage of the fine material when fluidised but small enough to prevent breakup of the fine material layer when unfluidised. The coarse material layer is supported by a perforated distributor plate having nozzles through which a liq. to be filtered and a purging fluid are introduced.

The screens and distributor plate enhance even flow distribution through the filter. (10pp)

VEVE- * D15 D/44 *IT 1052-025
Dense liquids mixer
OFF MECC VENERONI 30.12.75-IT-030848
(20.06.81) C02f

TOHO- * D15 80622 D/44 *J5 6118-666
Removing iron component from reagent for determining total iron - by adding reducing agent and acetic acid or ethanol soln. of vaso-phenanthroline, stirring and filtering

TOHOKU DENRYOKU KK 23.02.80-JP-021822

E31 J04 (17.09.81) G01n-31/22

23.02.80 as 021822 (50PW)

Iron component is removed from reagent for determining total iron by opt. adding iron reducing agent (e.g. hydroxylamine hydrochloride) and then adding acetic acid or ethanol soln. of vaso-phenanthroline to the reagents (e.g. ammonium acetate soln. or hydroxylamine hydrochloride soln.), stirring the soln. for 1 hr. or more, and filtering.

The reagent itself usually contains at least 0.1 ppm iron component.

The method is used for removing iron component in the reagent used for determining iron components in boiler water or feed water to boiler. Large amt. of iron component can be removed in a run by simple operation without using harmful organic solvents

such as isopropanol or isoamyl alcohol. (3pp)

INAG/ * D15 80623 D/44 *J5 6118-668
Determination of oxidisable substances - by flow system, by passing continuously into soln. contg. oxidising substance and directly or indirectly detecting prod.

INAGA T 22.02.80-JP-022126

J04 (17.09.81) G01n-33/18

22.02.80 as 022126 (50RH)

Determin. of oxidisable substances by flow system which comprises introducing a sample soln. contg. oxidisable substances into a soln. contg. oxidising substance (e.g. chromate, bichromate, permanganate, cerium (IV) salt or halogen contg. oxidising agent such as sodium hypochlorite) flowing through a pipe, and detecting directly or indirectly the substances formed by the reaction of the oxidisable substances and the oxidising substance.

Oxidisable substances (e.g. organic stain substances and inorganic and/or organic reducing substances) in water (e.g. sewage, industrial waste water, etc.) can be rapidly and simply detected or analysed, and the process can be automatised.

The detection of the reaction prod. can be rapidly and continuously carried out by e.g. light absorptiometric method with high reliability. (8pp)

MITP * D15 80629 D/44 *J5 6118-703
Removing scale from ion exchange membrane - used in electrolysis bath, by washing with alkaline soln. contg. complexing agent

MITSUBISHI PETROCH KK(MITS-) 25.02.80-JP-022598

J01 (17.09.81) B01d-13/02 B01j-47/12 B01j-49

25.02.80 as 022598 (42PW)

Ion exchange membrane (I), on the surface of which water-insol. salts have deposited during the use of (I) for electrolysis, is washed in soln. of pH 7.5-13 contg. 0.5-20% of complexing agent (II). Examples of (II) are cpds. which form water-sol. complex with divalent metal ion, such as imino diacetate, ethylene diamine tetraacetate, diethylene triamine pentaacetate, etc.

(I) is used in an electrolysis bath for desalting or concn. of a salt-soln., and microorganisms sometimes breed during the electrolysis, causing deposition of scale on the surface of (I). Washing of (I) with alkali cpd. hydrolyses the cell-membrane microorganisms and makes it easy to peel them off. (4pp)

SHIF * D15 80634 D/44 *J5 6118-708
Filter for sepg. suspended solids - e.g. in sewage treatment, includes endless chain with blades

SHINMEIWA IND KK 23.02.80-JP-021896

J01 (17.09.81) B01d-33/04

23.02.80 as 021896 (26AS)

Device for sepg. suspended solids contained e.g. in sewage comprises an endless screen belt passing over wheels in a casing inserted into a water passage. Improvement is that the belt consists of an endless chain and blades erected on the chain across the flow of water to be treated in the casing. One of the wheels has a small dia. and is located at a solids drain port formed at the casing. The others are arranged in the casing so that a wide area of the screen belt is stretched across the flow of water.

Solids can be filtered off without clogging up the belt. (4pp)

MITO * D15 80669 D/44 *J5 6118-784
Treating dilute soln. contg. metal halide - and hydrochloric acid, includes introducing into hydrogen-type strongly acidic cation exchange membrane

MITSUBISHI HEAVY IND KK 25.02.80-JP-021622

E36 M12 (17.09.81) B01j-49 C01b-07 C02f-01/42

25.02.80 as 021622 (51AS)

Method comprises introducing a waste soln. containing HCl and metal halide into a HCl concn. adjusting device to remote part of the HCl and obtain a soln. of below 1% HCl, introducing the soln. into a H type strongly acidic cation exchange resin to absorb metal ions and obtain a soln. of HCl, introducing a soln. of H₂SO₄ into the used resin to regenerate the resin and obtain a soln. of metal sulphate, introducing the soln. through a storage tank into an electrolytic cell recover metal ions in a cathodic chamber of the cell and a soln. of H₂SO₄ in an anodic chamber, and recycling the soln. of H₂SO₄ as regenerating soln. into the resin.

Used to treat a waste pickling soln. exhausted from steel mfr. to recover HCl soln. (5pp)

ITO ★ D15 80670 D/44 ★ J5 6118-786
 Treating waste acidic soln. contg. metal ions - by contacting with acidic cation exchange resin and subjecting to electrodialysis
MITSUBISHI HEAVY IND KK 25.02.80-JP-021621
J03 M14 (17.09.81) C02f-01/62
 25.02.80 as 021621 (51PW)
 The soln. is contacted with a strongly acidic cation exchange resin to adsorb the metal ions and obtain a treated soln. contg. no metal ions. The treated soln. is electrodialysed to remove residue acids.
 Metal ions include Fe, Mn, Zn, Cr, Al, Cd or Mg. No metal hydroxide is precipitated. (4pp)

YOKO ★ D15 80671 D/44 ★ J5 6118-788
 Treating waste pickling soln. from iron and steel prodn. - by adding (hypo)chlorite oxidising agent and alkali
YOKO YAKKA KOGYO KK 25.02.80-JP-023216
M12 (17.09.81) C02f-01/76
 25.02.80 as 023216 (51PW)
 Method comprises adding a chlorine contg. oxidising agent to waste solution contg. at least one of sodium silicate, surfactant, polybasic acid, zinc phosphate, fatty oil, or metal ions to oxidise the waste soln., adding alkali to the resulting oxidised solution to neutralise it and obtain precipitates from the solution, and settling the precipitates from the soln. The oxidising agent is calcium hypochlorite, sodium hypochlorite, or sodium chlorite.
 In an example, calcium hypochlorite was gradually added to a waste soln. contg. sodium silicate, sodium alkylbenzene sulphate, oxalic acid, and zinc phosphate to oxidise the soln. The resulting oxidised solution was neutralised with Ca(OH)₂ to obtain precipitates from the solution. The precipitates were sepd. from the soln. to obtain purified water. (5pp)

EBAI ★ D15 80672 D/44 ★ J5 6118-794
 Biologically treating sewage - by denitrification and activated sludge treatment, with dilution of liq. to prevent nitrogen dioxide generation
EBARA INFILCO KK 22.02.80-JP-020565
(17.09.81) C02f-03/34
 22.02.80 as 020565 (51AS)
 Method comprises subjecting waste water (I) contg. a high concn. of NH₃ to denitrification and activated sludge treatment. Improvement comprises (a) denitrifying (I); (b) denitrating; (c) recycling part of the denitrated water as diluting water for (I); and (d) introducing the other part into a solid sepn. process to separate waste sludge and obtain purified water. (I) is diluted with the recycled water in the denitrifying process so that the ammoniacal N 350 ml/l conc. and the temps. of the denitrifying and denitrating processes are above 20 deg.C.
 Generation of NO₂ from the purifying appts. is prevented by diluting with the waste water. (5pp)

KURITA ★ D15 80673 D/44 ★ J5 6118-798
 Dehydration agent for waste sludge - comprises water soluble polymer contg. anionic, cationic and nonionic units
KURITA WATER IND KK 22.02.80-JP-020599
A97 (17.09.81) B01d-21/* C02f-11/14
 22.02.80 as 020599 (51WB)
 Agent for dehydration of waste sludge, which is by-produced in treatment of waste organic water with activated sludge consists of a water-soluble polymer contg. 8-30 mol.% of anionic structural units (1), 20-92 mol.% as cationic structural units (2), and 0-72 mol.% of nonionic structural units (3).
 (1) is at least one of vinyl sulphonic acid, vinyl methyl sulphonic acid, 2-acrylamide ethane sulphonic acid, 2-acrylamide-2-methyl propane sulphonic acid, or their salts. (2) is at least one of methyl or diethyl aminoethyl (meth)acrylate, or their methylchloride quat. salts, dimethyl sulphate quat. salts, or benzyl chloride quat salts. (3) is at least one of acrylamide, methacrylamide, acrylonitrile, acrylic ester, or methacrylic ester. (6pp)

MITSUBISHI ★ D15 80674 D/44 ★ J5 6118-799
 Concentrating waste organic sludge - by adjusting pH with addn. of sulphuric or hydrochloric acid, adding hydrogen peroxide and collecting particles
MITSUBISHI ELECTRIC CORP 22.02.80-JP-021979
P41 (17.09.81) B03d-01/02 C02f-01/24 C02f-11/14
 22.02.80 as 021979 (51AS)
 Waste sludge by-produced in the treatment of drain water or waste industrial water is treated to obtain concn. sludge. Method comprises adjusting a waste sludge contg. organic substances with sulphuric acid or hydrochloric acid to pH below 4, adding hydrogen peroxide to the sludge to float suspended particles and collecting the particles to obtain conc sludge.
 In an example, excrement was treated in a purifying tank by

by-produce a waste sludge of concn. 16%. The waste sludge was adjusted with sulphuric acid to pH 2-3. Hydrogen peroxide was added to the float and set for 24 hours to sludge, suspended particles. The floated particles were sepd. to obtain concn. sludge. Waste sludge is treated without using a polymeric aggregating agent. (3pp)

TOYJ D15 78615 Y/44 = J8 1042-822
 Flocculant contg. alumina - prepd. by adding calcium carbonate, sodium bicarbonate or magnesium (hydr)oxide to aq. soln. of aluminium chloride

TOYO SODA MFG KK 23.02.76-JP-017887
E33 (03.10.81) *J52113-384 B01d-21/*

23.02.76 as 017887 (43NS)

Basic aluminium chloride flocculant is produced by adding an aq. soln. of aluminium chloride or basic aluminium chloride at less than 60 deg.C to calcium carbonate, sodium bicarbonate, magnesium hydroxide or magnesium oxide to an alkalinity of 65-70, which are e.g. in the form of powder or slurry or an aq. soln.

The flocculant contains pref. 5-15% of aluminium as Al₂O₃. The flocculant of aluminium chloride shows linear polymer structure with reduced crosslinking and can be used at a decreased addn. amt., while producing sludges with improved pptn. rate and filtration property. (J52113384) (9pp)

EBAI D15 23682 X/13 = J8 1042-331
 Regeneration of condensation desalting appts - including separating mixt of anion and cation exchange resins and regenerating each resin separately

EBARA INFILCO KK 08.08.74-JP-090945
A91 (03.10.81) *J51018-982 + B01j-49 C02f-01/42

08.08.74 as 090945 (DH)

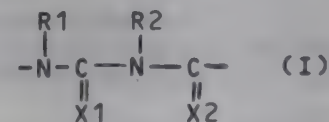
In regenerating mixed bed system condensation desalting appts. by out-of-tower regeneration, after desalting by ammonia cycle, mixture of cation exchange resin and anion exchange resin is first sepd. into two layers by backwash, and anion exchange resin is transferred to anion regenerating tower and regenerated into OH type by caustic alkali.

The remaining cation exchange resin is uniformly mixed with air and other inert gas, acid being passed, and regenerated in H-form. Amount of acid required is markedly reduced, and method is partic. effective for MR-type resin of low rate of regeneration. The desalting appts. is used for desalting feed water for high temp., high pressure boilers. (J51018982) (3pp)

MITR D15 32540 X/18 = J8 1042-342
 Water treating agent for selective heavy metals removal - prepd. by reacting phosgene/carbon tetrachloride, thiourea/sodium hydroxide

MITSUBISHI RAYON KK 05.09.74-JP-102204
E19 F09 (03.10.81) *J51030-165 B01d-21/* C02f-01 C08g-71/02
 05.09.74 as 102204 (DH)

A water-treating agent (I) is prepd. capable of selectively removing heavy metals, rapidly and completely from water, and making contaminants (in coloured water, pulp waste liq. and other contaminated liqs.) water-insoluble. (I) comprises a cpd. contg. functional gps., represented by the formula (I): (in which R₁ and R₂ are H, alkali (earth) metal, ammonium radical; one of X₁ and X₂ is a sulphur atom and the other is a sulphur atom or oxygen atom). (J51030165) (6pp)



EBAI D15 65851 X/35 = J8 1042-345
 Aggregation of material from a suspension - by making it basic, adding an anionic polymer and multivalent electrolyte

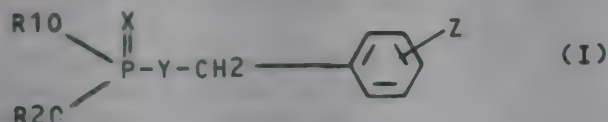
EBARA INFILCO KK (EBAR) 10.01.75-JP-005394
A97 J01 (03.10.81) *J51081-451 + C02f-01/52

10.01.75 as 005394 (KB)

Finely aggregated and dehydrated substance is recovered from a suspension by adjusting pH of the suspension to be basic, adding an anionic polymer (an organic polymer type aggregating agent) to the basic suspension, and adding a multivalent electrolyte (a surfactant or a salt of Ca, Mg, Ba, Fe or Al) thereto to aggregate it.

Pref. the pH of the suspension is more than 8.5; the polymer is 0.5 to 1,500 ppm of weakly anionic polyacrylamide; 0.1-10 mg/g. ss of the multivalent electrolyte is added; and a rate of the electrolyte to the polymer is 0.1-10:0.1. Amt. of the polymer to be used is reduced. The resulting aggregated substance is strong, and can be easily sepd. (J51081451) (4pp)

IHAR D15 25681 X/14 = J8 1042-352
Bulking prevention in activated sludge water treatment - by adding a thio (or thiol) phosphoric ester
 IHARA CHEM IND 16.08.74-JP-093978
 E11 (03.10.81) *J51022-266 + C02f-03/12
 16.08.74 as 093978 (AT)
 In treatment of a waste water by an activated sludge process, bulking problems are prevented or inhibited by adding a thiophosphoric ester or thiolphosphoric ester of formula (I) (where R1 and R2 are each lower alkyl; one of X and Y is O and the other is S; Z is H or halogen). (J51022266) (6pp)



EBAI D15 93200 X/50 = J8 1042-355
Waste water treating process - for nitrification of ammonium nitrogen by (an aerobic contact with bacterial carbonaceous adsorbent

EBARA INFILCO KK 18.04.75-JP-047669
 (03.10.81) *J51122-943 + C02f-03/34
 18.04.75 as 047669 (HM)
 The NH3-N-contg. water is treated as follows: by passing it upwardly through a layer of a granular carbonaceous adsorbing agent (e.g. activated charcoal, coke, anthracite, a wood charcoal, etc.) from the underpart thereof under aerobic conditions such that at least a portion of the layer is expanded and fluidised further passing the water thus treated upwardly through a layer of the granular carbonaceous adsorbing agent from the underpart thereof under anaerobic conditions such that at least a portion of the layer is expanded and fluidised; a portion of the water obtd. in step (2) being recycled to an inlet of step (1).
 High density of bacteria per unit vol. of the adsorbent is possible, with good adherence and propagation. (J51122493) (4pp)

EBAI D15 93201 X/50 = J8 1042-356
Waste water treatment to remove nitrogen cpds. - by passing it through a layer of carbonaceous adsorbing agent under anaerobic, aerophilic then anaerobic conditions

EBARA INFILCO KK 18.04.75-JP-047670
 (03.10.81) *J51122-944 + C02f-03/34
 18.04.75 as 047670 (HM)
 Waste water is treated to effectively remove NH3-N and an organic matter by subjecting the NH3-N contg. waste water to a treatment comprising (1) passing it through a layer of a granular carbonaceous adsorbing agent (such as an activated charcoal, anthracite, wood charcoal, etc) under anaerobic state; (2) further passing the water thus treated through a layer of the granular carbonaceous adsorbing agent under aerophilic state; (3) further passing the water obtd. in the step (2) through the layer of the granular carbonaceous adsorbing agent under anaerobic state; a portion of the water flowed out from step (2) being recycled to an inlet of the step (1). An amt. of organic carbonaceous source necessiated for denitrogenation is due to the fact that the load of the denitrogenation is decreased, thereby it becomes possible to minimise the appts. (J51122944) (3pp)

EBAI D15 93202 X/50 = J8 1042-357
Waste water treatment to remove phosphorus, nitrogen and organics - by adding lime and passing over active carbonaceous material

EBARA INFILCO KK 18.04.75-JP-047671
 (03.10.81) *J51122-945 + C02f-03/34
 18.04.75 as 047671 (HM)
 Process for removing effectively over a long continuous period, phosphorus, nitrogen and an organic matter from waste water by means of a small-sized appts. in which the waste water is treated by (1) adding lime followed by cohesion pptn.; (2) passing the thus treated water up through a layer of a granular carbonaceous adsorbent (such as activated charcoal, coke, anthracite; wood charcoal, etc.) from beneath under aerobic state such that at least a portion of the layer is expanded and fluidised; (3) further passing the water up through a layer of the granular carbonaceous adsorbing agent from beneath under anaerobic state such that at least a portion of the layer is expanded and fluidised the water flowing into the step (2) being adjusted to pH below 10.5, and the water flowing-out therefrom being adjusted to pH above 6.0. (J51122945) (3pp)

EBAI D15 93203 X/50 = J8 1042-358
Ammonia removal from waste water - by converting to nitric and nitrous acids and then reducing to nitrogen
 EBARA INFILCO KK 18.04.75-JP-047672
 (03.10.81) *J51122-946 + C02f-03/34
 18.04.75 as 047672 (HM)

An NH3-contg. water is subjected to a treatment by adjusting its pH value by adding an alkali agent; passing the water upwardly through a granular carbonaceous adsorbing layer from its underpart under aerophilic state in the presence of dissolved oxygen so that at least a portion of the layer is expanded and fluidised so that the NH3 is converted into HNO3 or HNO2 on contact reaction; adding an organic C source to the nitrified water, obtd. in above followed by reducing the HNO3 and the HNO2 to N2 under anaerobic conditions; the amt. of the alkali agent and the dissolved oxygen in the nitrifying step being adjusted so that pH of the nitrified water becomes above 6.0 and dissolved oxygen concn. of downwards of one ppm. (J51122946) (4pp)

HITJ D15 85702 X/46 = J8 1042-359
Treatment of smoke-washed waste water - contg. heavy metal and a reductive matter by adjusting the pH to 3 to 4 adding sodium hypochlorite soln. and raising pH to 9 to 10

HITACHI ENGINEERING KK 19.03.75-JP-033446
 E36 J01 (03.10.81) *J51109-149 + C02f-01/28 C02f-09
 19.03.75 as 033446 (NS)
 In the treating of smoke-washed waste water for incinerating industrial wastes contg. a heavy metal and a reductive matter and a waste water resulted from a waste gas desulphurising appts., the improvement comprises adding a mineral acid (e.g. H2SO4) or an alkali agent (e.g. Ca(OH)2) to adjust its pH to 3-4 and oxidising it with a NaClO2 while maintaining its temp. at about 50 deg.C, adjusting the water thus treated at a pH of 9-10 by use of an alkali agent followed by cohesion pptn., subjecting a supernatant liquor to a filtration treatment followed by contacting with an activated charcoal.

It is possible to remove simultaneously the heavy metal and the reductive matter (C.O.D.) and its C.O.D. is lowered to less than 10 ppm. (J51109149) (3pp)

SUMO D15 36840 Y/21 = J8 1042-360
Regenerating ion-exchange resins after activated sludge treatment - using sodium chloride soln. which is treated and then recycled

SUMITOMO CHEMICAL KK 21.01.74-JP-009451
 (03.10.81) *J50103-164 + C02f-01/42 C02f-09
 21.01.74 as 009451 (38TM)
 Effluent from activated sludge processing is treated with a strongly acidic cation-exchange resin to remove NH4+ -N. Spent resin is regenerated with a NaCl soln., and the effluent contg. 60-95% NaCl is collected. The pH is adjusted and hardness is removed by pptn., and filtration NH4+ in the filtrate is removed by ammonia-stripping; the treated soln. is neutralised and its NaCl concn. is adjusted to reuse it for resin regeneration.

Thus 2 columns (A and B) contg. 13.5 l each of strongly acidic exchange resin (degree of cross linkage 12%) were prepd. The 2 columns were successively regenerated with 10% NaCl and tap water at 21/l of resin, resp., followed by washing with effluent from the activated sludge process. This was repeated 8 times, using regenerated NaCl soln. from the previous cycle for column A and for column B freshly prepd. NaCl soln.

The recovered NaCl regeneration soln. was adjusted to pH 11.0-12.2 with NaOH to ppte. hardness as hydroxides and filtered. The filtrate was ammonia-stripped. The treated soln. was neutralised with HCl, its NaCl concn. was adjusted to 27-31% and used for resin regeneration in the next cycle. (J50103164) (7pp)

SIGE D15 40967 W/25 = J8 1042-675
Passive metal electrode for electrochemical cells - made with porous titanium/titanium oxide base coated with fused titanium and noble metal

SIGRI ELEKTROGRAPHI GMBH 25.04.74-DE-420011
 (02.02.74-DE-405010)
 E36 J03 X25 + P53 (06.10.81) *BE-824-754 B22f-03/12 C22c-29
 C25b-01/36 C25b-11/04
 03.02.75 as 014197 (+ 16.3.74-DE-412828) (TM)
 An electrode is mfd. by fusing a mixt. of Ti and TiO powders to give a base material of TiOx where x is between 0.25 and 1.5. This fused mixt. is porous and so fairly light and is coated with a layer of titanium powder fused again to give good adherence, then finally coated over at least 5% of its surface with a noble metal, e.g. platinum.

The pores of the base material act as gas evacuation passages. To keep the bottom of the electrode free of gas bubbles, inclined channels are formed which allow the gas flow to the surface of the cell.

The electrode can be used in e.g. mercury or diaphragm cells for prodn. of chlorine; for the oxidn. or org. prods. and for cathodic protection. The electrode is not consumed during the electrolysis but offers little electrical resistance. Helps prevents build up of gas bubbles on the surface which affect efficiency and the rough surface allows greater current density to be used (J50109176) (8pp)

IIDA/ ★ D15 80981 D/44 ★ J8 1042-822
Heat-conductive tube for desalination plant - comprises heat-conductive material, carbon black lining, glass fibre net and graphite layer (J5 24.2.78)

IIDA T 07.08.76-JP-093570

J08 Q74 Q78 (07.10.81) C02f-01/14 F24j-03/02 F28f-01 F28f-19/02

07.08.76 as 093570 (83PW)

Heat-conductive tube comprises tube of heat-conductive material (I), carbon black lining applied on outer surface of (I), glass fibre net (II) bonded to inner surface of (I), and graphite layer (III) applied on (II).

The tube has excellent balance of heat conductivity and corrosion resistance. (J53020153) (2pp)

UNIE- ★ D15 80984 D/44 ★ NL 8001-214
Poultry manure suspended in water is aerobically fermented - to remove organic matter then carbonate and fed to algae culture for feedstuff

UNIE VAN KUNSTMESTF 28.02.80-NL-001214

C03 (D13) (01.10.81) A23k-01 C02f-03/32

28.02.80 as 001214 (1190AT)

The arrangement is intended for treating e.g. poultry manure in suspension in water, feeding the suspension to an algae culture, dissolving carbon dioxide obtd. by combustion, growing algae in the culture exposed to light, and sepg. the algae thus produced for mixing with animal feed.

The manure is mixed with the water and the organic matter present in the suspension subjected to aerobic fermentation to produce carbon dioxide and a protein-rich sludge contg. micro-organisms. After sepg. this sludge, the remaining soln. contains mainly inorganic matter and is fed to the culture for growing the algae.

Aerobic fermentation prior to algae culture removes the organic matter which would otherwise promote bacterial growth interfering with prodn. of algae. It also produces part of the carbon dioxide which is mixed with the organics-free soln. to make algae growth possible. The fermented organic sludge forms a further valuable component for mixing with the feedstuff. This arrangement eliminates the need for drying the manure and the resulting unpleasant smell, requires less energy and provides a more useful prodn. (11pp)

DOWC ★ D15 81005 D/44 ★ RD -210-014
Obtaining pure sodium chloride from holding pond - by washing contaminated salt in high efficiency solids washing column

DOW CHEMICAL CO 20.09.81-RD-210014

E34 (10.10.81) C01d-00/*

20.09.81 as ----- (AT)

Holding ponds are commonly used to store aq. brine contaminated with other materials which are produced as by-prods. in chemical processes. These ponds accumulate large quantities of pptd. sodium chloride salt contg. organic and other contaminants. This salt reduces the capacity of the holding pond and must be removed.

Opt. the contaminated salt is washed with water in a high efficiency solids washing column to remove water-soluble organic materials from the salt surface without dissolving much salt. The lightly contaminated salt is dissolved in water to produce a conc. brine soln. The aq. brine soln. is then sepd. from any insoluble material present. The vol. of the aq. brine soln. is reduced by evapn. to recrystallise pure salt. Solar heat or process waste heat can be economically used to promote evapn. The aq. brine should not be so conc. that soluble organic materials co-precipitate with the salt. The recrystallised salt can be readily recovered and washed again to achieve the desired purity.

Either or both the first and last washing steps can be dispensed with if the salt is not too contaminated. Water contg. the soluble organic materials can be returned to the holding pond or sent to digester units which use biological organisms to break down the organic materials. (-pp)

EGGI/ ★ D15 81008 D/44 ★ RD -210-021
Processing silver-contg. photographic effluents - by addn. of sodium sulphide and ultrafiltration of the colloidal silver sulphide formed

EGGINK R 20.09.81-RD-210021

G06 J01 M25 (10.10.81) B01d-00/*

20.09.81 as ----- (513AT)

Photographic effluents contg. e.g. 0.1-0.3% Ag in the form of soluble ligand complexed Ag, are treated to recover the Ag by adding sodium sulphide to form a colloidal silver ppt, and conc. the liquor by ultrafiltration.

Ultrafiltration is pref. carried out using a tubular ultrafiltration system and gives a concentrate with a silver sulphide solids concn. of up to 40%, and a permeate in which the Ag and Cd levels are acceptable for draining off. Pref. the pH is

maintained below 7 during ultrafiltration by addn. of small amts. of Na₂S₂O₄, which inhibits air oxidn. processes and ammonia formation during ultrafiltration, which can lead to formation of soluble Ag complexes which pass into the permeate.

In an example a feed soln. contg. 0.21% Ag was subjected to ultrafiltration through a WFA 500 membrane to give a 50% vol. redn. The permeate had a concn. of Ag of 0.07 mg/l, Cd 0.085 mg/l and a pH of 6.8. (1pp)

BOST/ ★ D15 D/44 ★ SE 8001-794
Bacteriological decomposition plant for fluid producing methane gas - using pump unit and valve body in movement of untreated fluid to process chamber and treated liquid from it

BOSTROM O 07.03.80-SE-001794

E17 (12.10.81) B01j-04 C02f-11/04

07.03.80 as 001794 (1161WB)

Plant for recovery of methane gas from a fluid by breaking down its constituents bacteriologically, has at least one process chamber, a first container for untreated fluid, a second container for treated fluid, a pump unit transferring untreated liq. from the first container to the process chamber and from the latter to the second container, and a heat exchanger transferring heat from the treated fluid to the untreated material during transfer.

The pump has at least two work chambers, and pressure components to vary the chamber volumes. The one chamber, on filling or emptying of the process chamber, receives untreated fluid from the first container and then transfers it to the process chamber. The second chamber takes treated fluid from the process chamber and passes it to the second container. A valve body alternately connects the pump work chambers with the treatment chamber and one of the containers.

JOHN- ★ D15 81022 D/44 ★ SE 8000-430
Aerating water - using turbines on arm fitted to floating body

JOHNSON CONS CO AB 18.01.80-SE-000430

(17.08.81) B01f-03/04 C02f-01/74

18.01.80 as 000430 (1444PW)

Arrangement for the ventilation of water in a basin includes revolving arm which is supported by an anchored float so as to be suspended under the surface of the water. Specifically arrangement comprises three pontoons which are connected via three tubular supports. These hold the motor, gear wheel, axle and the rotating arm.

Arrangement for ventilating and mixing water in a basin, esp. for the cleaning of sewage is provided. (Provisional Basic advised Week D36) (12pp)

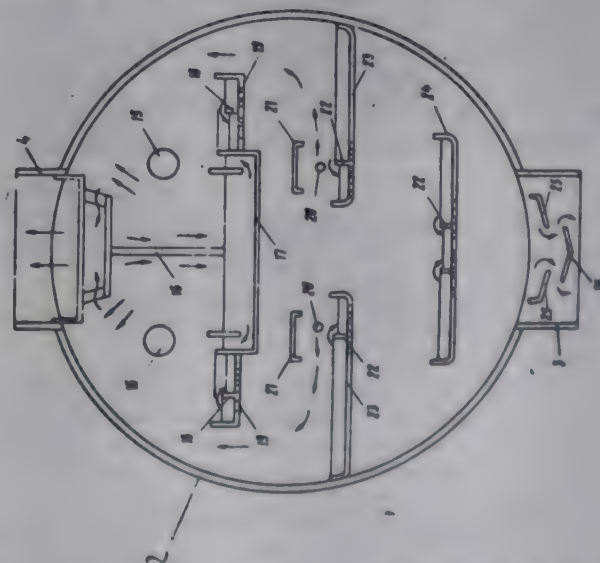
LYUB/ ★ D15 81177 D/44 ★ SU -802-189
Vacuum deaerator for superheated water - has twin perforated distribution manifolds flanking guide partition and linked to condenser via make-up line

LYUBELYA A E 23.06.76-SU-375595 (23.06.76-SU-375049)

(07.02.81) C02b-01/10

23.06.76 as 375049 (132MI)

The deaerator comprises an accumulator tank and a column (2) housing the water distributor and stream-type plates (19), and a cooler linked to the column and to an ejector with a condenser, while the water feed and make-up lines are also linked to the column. To increase performance, the column has perforated manifolds (15) with deflectors above them, central between the plates and linked to the make-up line, which is also connected to the condenser. (3pp Dwg.No.2)



BRAV/ ★ D15 81178 D/44 ★ SU-802-190
Thermal deaerator - has moisture traps before, and angular elements linking mass condensation zone to casing and steam supply

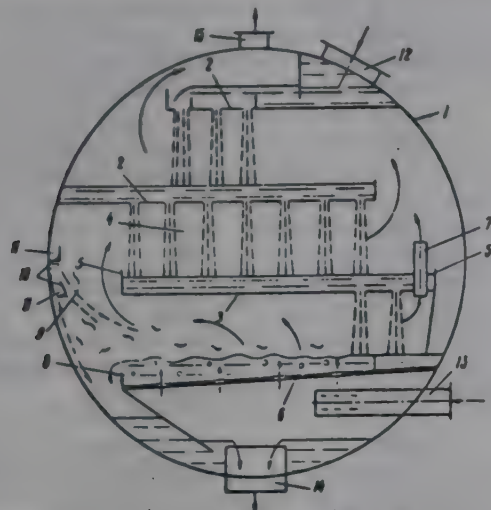
BRAVIKOV A M 11.07.78-SU-643753

(07.02.81) C02f-01/20

11.07.78 as 643753 (132MI)

The deaerator comprises a set of top (2) and bottom (3) stream plates and a bubbling sloped plate (6) in a casing, a mass condensation zone (4) between the stream plates, and a steam rotation section (9) between the wall of the casing (1) and plate (3). To extend the hydraulic load range, the said section has moisture traps before the said zone.

The zone (4) is made of angles (10) with their one arm running in the direction of the steam and the other towards the casing. (3pp Dwg.No. 1)



GORE/ ★ D15 81179 D/44 ★ SU-802-191
Removing active chlorine from aq. waste soln. - using activated carbon and carbon-tetra:chloride or di:chloro-ethane

GORENBEIN A E 05.07.77-SU-504291

E36 (07.02.81) C01b-07/* C02f-01/28

05.07.77 as 504291 (114VE)

Removal of active Cl₂ from industrial waste water (in chlorine and caustic soda mfr.) by adsorption with activated charcoal is intensified (by 5-10 fold) by treating in presence of chlorinated hydrocarbon pref. CCl₄ or dichloroethane at concn. 10-30 mg/l. The soln. and hydrocarbon mixt. is passed through a layer of activated carbon. Typically, a soln. at pH 3 and contg. 100 mg/l active Cl₂, 10 g/l NaCl, 0.1 g/l CaCl₂ and 1 g/l MgSO₄ is mixed with dichloroethane (to concn. 10 mg/l) before passing through activated carbon AR-3 using 2 mins. contact time to drop active chlorine content to 0.1 mg/l. Bul.5/7.2.81. (2pp)

VNIP = ★ D15 81180 D/44 ★ SU-802-192
Thermal power station effluent treatment - has return to lime and soda treatment stage of discharge from common salt regenerator

VNIPIENERGOPROM 21.11.77-SU-567137

(07.02.81) C02f-01/42

21.11.77 as 567137 (132MI)

The process comprises treatment with lime and soda, mechanical filtration, Na-cationite softening, regeneration and washing-out of the Na-cationite filters. To exclude effluent formation in the cycle, the regeneration is carried out by a mixture of a solution of common salt and softened effluent, while the washing is undertaken with clarified water, and the regeneration discharges from the filters are returned to the treatment stage. (2pp)

KBEN = ★ D15 81181 D/44 ★ SU-802-193
General purpose electrochemical cleaner for water - has filtration charge below electrode block in shell shape partition linked to water inlet

KUIBENG-CONS INST 19.03.76-SU-335923

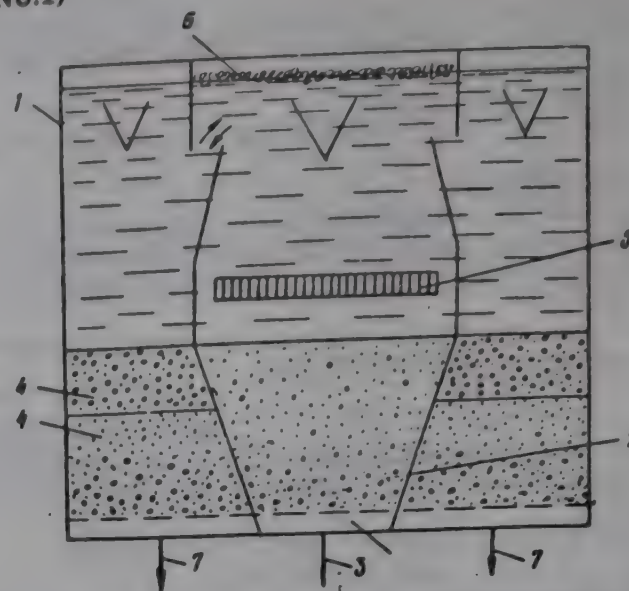
X25 (07.02.81) C02f-01/46

19.03.76 as 335923 (132MI)

The cleaner comprises a casing with a bottom, water inlet (3) and outlet (7) pipes, a filtration charge (4), and an electrode block (5). To reduce energy consumption and increase efficiency, a shell-shape partition (2) house pipe (3) and in its widest part the block (5), while the charge is located on the bottom.

On operating at a steady current density of 8.35mA/cm², after 33 hours operation of the electrodes the energy consumption is 0.63kWh/m³ of water, while after cleaning of the electrodes and after a further 1-3 hours it is 12.1 V and 0.36 kWh/m³ respectively, i.e. lower by a factor of 1.75. Cleaning also decreases the residual suspended matter concentration from 83 to 37 mg/l. Bul.5/7.2.81.

(2pp Dwg.No.1)



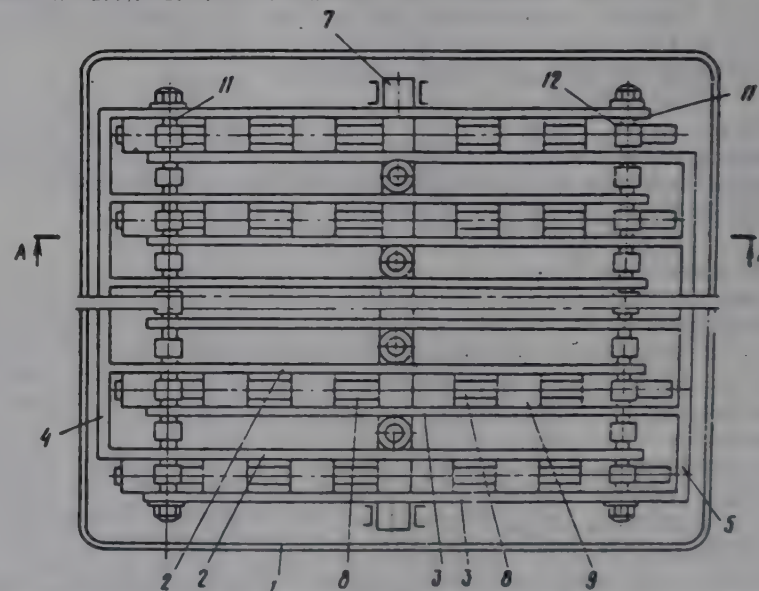
WASU ★ D15 81182 D/44 ★ SU-802-194
Electrolyser for effluent cleaning - has electrode scrapers with spacing equal to their length and on rods at right-angles to each other in adjoining inter-electrode gaps

KHARK VODGEO WATER 30.01.78-SU-573380

X25 (07.02.81) C02f-01/46

30.01.78 as 573380 (132MI)

The electrolyser comprises a casing with vertical anodes (2) and cathodes (3), made as parallel metal plates, a shaft (7), and scrapers (9) for cleaning the electrodes, made of elastic material. To extend service life, pins (11) are fitted, carrying separating sleeves (12), the electrodes are linked by busbars (4,5) and are perforated to take the shaft and the pins, and the rods in the adjoining interelectrode gaps are at 90 degrees to each other. Preferably, the distance between the scrapers on the rods equals the length of the scrapers. Bul.5/7.2.81. (3pp Dwg.No.1)



LETS/ ★ D15 81183 D/44 ★ SU-802-195
REmoving hexa:valent chromium cpds. from waste water - by electro-coagulation with soluble iron anode at specified current density and temp.

LETSKIKH E S 07.02.78-SU-576012

E31 J03 (07.02.81) C02f-01/46

07.02.78 as 576012 (114VE)

Removal of Cr(VI) cpds. by electrocoagulation with a soluble Fe anode increases purification, lowers energy expenditure and allows purification of waste water not contg. free acid and low soluble salt concn. by processing at 50-100 deg. C. and anode current density 0.05-0.3 A/sq.decim.

Typically, condensed water contg. (in mg/l): Cr(VI) 48.8; Fe 0.5; SO₄ (2-) 25; Cl(-) 9.9; Ca 0.3; Mg 0.4, at pH 6 is treated at 70 deg. C using steel electrode, current density 0.1 A/sq.decim, and electrode-sepn. 10mm to give 100% removal of Cr(VI), pH 8.5, and specific energy expenditure 21.5 kW.hr/kg Cr. Bul.5/7.2.81. (2pp)

ROMA/ ★ D15 81185 D/44 ★ SU-802-197
Magnetic separator for liquids treatment - has ferro-barium ring packing in cassettes in ferromagnetic holder with replaceable diaphragms

ROMANOV A E 09.08.78-SU-658181 (09.08.78-SU-655096)

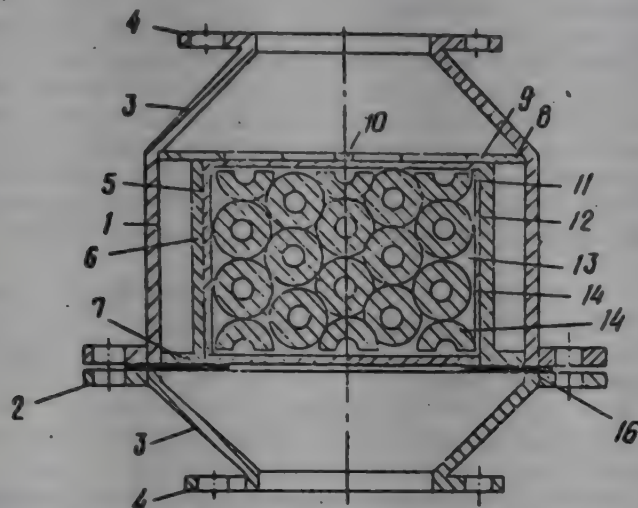
J01 X25 (07.02.81) C02f-01/48

09.08.78 as 655096 (132MI)

The separator comprises a casing with magnetic packing

consisting of ferrobarium rings (14) in staggered arrangement. To apply a non-uniform magnetic field to the liquid, cassettes (11) of diamagnetic material house the packing.

Preferably, the ring's hole diameter is 0.3-0.5 fold its external diameter, with location in close columns, and spacing of the cassettes, e.g. in a ferromagnetic holder (5) made as a rectangular polygon with replaceable diaphragms (16) before the cassettes, the rings and casing having a protective coating if acids and alkalis have to be treated, while an inlet water weir and an outlet top support plate parallel with this maintain the optimum speed range automatically. Bul.5/7.2.81. (4pp Dwg.No.1).



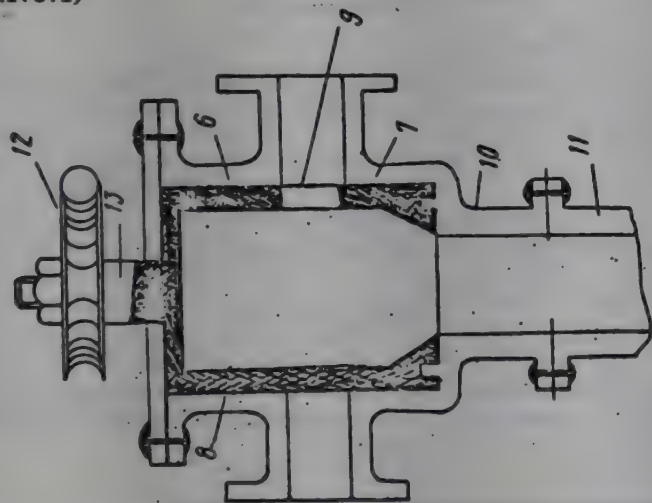
KROT/ ★ D15 81188 D/44 ★ SU-802-198
General purpose liquids settler - has sediment discharge control chambers incorporating cylindrical gate and elastic scrapers above slits in discharge tubes

KROTOV DI 28.09.77-SU-531383

J01 (07.02.81) C02f-01/52

28.09.77 as 531383 (132MI)

The settler comprises a casing, a bottom with sloping walls, and discharge tubes each with sediment discharge controllers (5). To simplify its design, each controller is made as a cylindrical chamber (6) linked to the discharge tubes and incorporating a cylindrical perforated gate (8). Preferably, a scraper mechanism is fitted, the scrapers above slits being made of elastic material. (3pp Dwg.No.4)



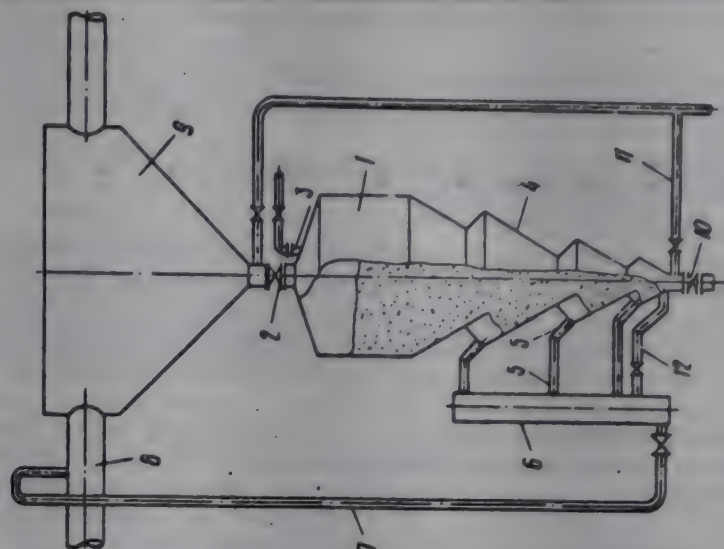
FEPU ★ D15 81187 D/44 ★ SU-802-199
Settler sediment collector and remover - has bin with communicating bottom coaxial conical chambers and linked to water collection column via water discharge pipes

FERR METAL EFFL PURIF 10.05.78-SU-613552

(07.02.81) C02f-01/52

10.05.78 as 613552 (132MI)

The remover comprises a cylindrical-conical bin (1) with top material and air feed pipes and bottom water sediment discharge pipes. To accelerate drying of the sediment, the conical part of the bin is made up of communicating coaxial conical chambers, while a water collection column is linked to the bin via the water discharge pipes. (3pp Dwg.No.1)



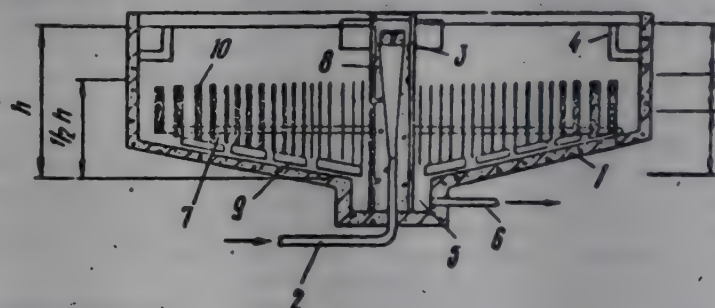
MOEN = ★ D15 81188 D/44 ★ SU-802-200
Waste water sludge compactor - has vertical cylindrical shells increasing in dia. from centre, to reduce compacted sludge volume

MOSC ENG-CONS INST(GMOL=) 26.06.78-SU-631812

(07.02.81) C02f-01/52

6..6..8 as 31812 132MI)

The compactor comprises a cylinder (1) with a rotating axial shaft (8) carrying a suspended frame (3) with vertical elements, and a set of sectional troughs (4) with a compacted sludge receiver (5) and a sludge discharge pipe (6). To reduce the compacted sludge volume, the vertical elements are made as a set of semi-cylindrical shells (10) half the compactor in height and increasing in diameter from the centre according to the relation: $dn = a + b \cdot rh$ (dn is the diameter in mm of the n -th shell a distance rh from the centre of the compactor, $a = 43.75$, $b = 0.00625$ (constants)). (3pp Dwg.No.1)



FEPU ★ D15 81189 D/44 ★ SU-802-201
Liquid effluent settler cleaner - has top scraper with special support and slope characteristics to seal gap at settler walls

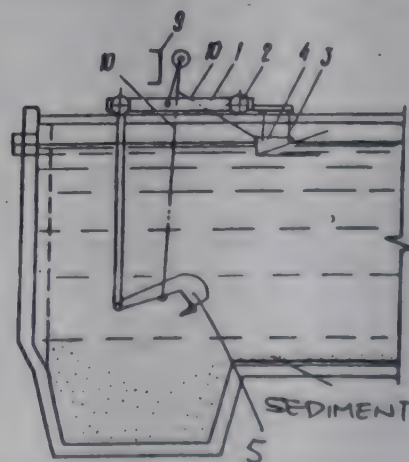
FERR METAL EFFL PURIF 17.08.78-SU-654765

(17.02.81) C02f-01/52

17.08.78 as 654765 (132MI)

The cleaner comprises a carriage (1) with scrapers for moving the sediment and the floating impurities (5,4) respectively, and a drive. To seal the gap between the scrapers and the settler walls, scraper (4) has a hinged four-element assembly on the carriage, and it slopes 10-40 degrees to the horizontal at the bottom.

The sediment is reduced by breakers and moved by the rack to the receiver, the surplus sediment being removed during the subsequent cycles. The floating impurities are fed by scraper (4) to trough (11), through plane-parallel movement on hanger (3) applied to the guide (12). On approaching the receiver, levers engage the bearings (9) raising scraper (5) and lowering scraper (4) via flexible connections (10). Bul.5/7.2.81. (3pp Dwg.No. 1,5)



ZAPO = ★ D15 81190 D/44 ★ SU-802-202
Hot ferrous metal rolling recirculated water - pretreated with nonionic surfactant to prevent greasing of slag for its subsequent utilisation

ZAPORO IND INST 25.05.78-SU-640219
M24 (17.02.81) C02f-01/54

25.05.78 as 640219 (114VE)
Clarification of ferrous metal rocking mill recirculation water contg. oil and slag for reuse includes pretreating with reagents before the settling stage prevents greasing of the slag (thus allowing its subsequent utilisation in blast furnace) by addn. of nonionic surfactant (pref. at concn. 0.08-0.2 g/l) to the water before passing to the mill. Typically, waste water contg. (in mg/l): finely dispersed slag 180; oil 80, is treated with 0.12 g/l PO-11 surfactant before use to give slag contg. 0.5 mg/g oil. The slag prod. is compact, easily dried out, maintains flow properties, and is suitable for further use. The oil prod. is removed from the water surface and may also be utilised. Bul.5/7.2.81. (2pp)

UYKA = ★ D15 81191 D/44 ★ SU-802-203
Recovery of dyestuff from textile processing waste water - includes acidification with sulphuric acid and filtration to increase prod. purity

KALININ UNIV 27.10.77-SU-546366
F06 (17.02.81) C02f-01/58

27.10.77 as 546366 (114VE)
Removal of dyestuff from waste water (e.g. from cotton textile processing industry) by acidification and filtration increases purificn. and gives commercial dyestuff prod. by adjusting with H₂SO₄ to pH 1-1.5.

Typically, waste water at pH 8-12 from dyeing cotton fabric dying contg. 0.5% wt. % sulphur-black dyestuff is adjusted to pH 1-1.5 with H₂SO₄. Filtration gives 90-98% removal of dyestuff which is easily regenerated into the Na-form. Bul.5/7.2.81. (2pp)

URFO ★ D15 81192 D/44 ★ SU-802-204
Cooling and purificn. water stabilisation - using N,N-di:subst. ethylene di:amine complex forming cpd. to prevent mineral salt deposition

URALS FORESTRY INST 01.09.76-SU-399403
E11 (17.02.81) C02f-05/14

01.09.76 as 399403 (1511VE)
Complexones contg. common functional gps. of alkane-sulphonic, carboxylic, and phosphonic acids, were used for stabilisation of aq. solns. and are applicable to the water treatment, purificn. and supply, and for prevention of mineral deposits in pipes, de-salination plants etc.

More effective stabilising action and reduced consumption of reagents was achieved with complexones of formula: R₁R₄NCH₂CH₂NR₂R₃ (where R₁, 2 are CH₂CO₂H; R₁, 4 are CH₂PO₃H₂; (R₁, 2 are CH₂CH₂SO₃H; R₃ is H; R₄ is CH₂PO₃H₂); (R₁, 2 are CH₂CH₂SO₃H; R₃ is CH₂PO₃H₂; R₄ is CH₂CO₂H); (R₁, 2 are CH₂PT₃H₂; R₃, 4 are CH₂CH₂SO₃H). These complexones increase the effectiveness of the treatment of aq. solns. due to their greater affinity towards crystal seeding. Bul. 5/7.2.81 (3pp)

DURK/ ★ D15 81488 D/44 ★ US 4294-434
Heavy metal removal from waste solns. - using appts. which includes pH sensing probes for correct acidification and alkalinisation of soln.

DURKEE R G 24.01.80-US-115039
J01 M11 V04 (13.10.81) C22b-15/12

24.01.80 as 115039 (994DH)
The appts. comprises a reaction chamber and a source of conc. acid at a pH of less than 2. Acid enters the reaction chamber by means of a valve, the amt. being controlled so that the soln. pH is maintained at a set level. Al is kept stable in the soln. to form a salt with the acid anions so that heavy metal salts are pptd., by positioning retaining barriers at set points in the chamber.

The appts. is also claimed for removing Cu salts from waste solns., and also has an acidification chamber into which conc. H₂SO₄ is pumped through a valve. Pure Cu ppte. is collected from the soln. An alkalisation chamber is connected to the reaction chamber and by another valve, to a source of alkali to neutralise the treated soln. for disposal.

The appts. is partic. for removal of Cu from etch, solder and plating rinses obtd. in printed circuit board mfr. The formation of white fluff and slime in the spent soln. is avoided, so pollution is reduced less expensively. (8pp)

DOWC ★ D15 81511 D/44 ★ US 4294-589
Removing trapped gas under pond liners - by floating liner on liq. and venting gas up sides of pond

DOW CHEMICAL CO 22.12.77-US-863633
(13.10.81) B01d-53

22.12.77 as 863633 (67)

Trapped gases are removed from beneath a pond liner by partially filling the pond excavation under the liner with a liq. so that the liner floats in the liq. and the trapped gases collect between the surface of the liq. and the liner. The pond is progressively filled on top of the liner with another liq. to force the trapped gases beneath the liner to the sides of the pond. The gases are vented up the sides of the pond to the atmos. and the liq. under the pond line drained away so that the liner settles on the bottom of the pond excavation. A pond used to hold satd. brine for an underground liq. petroleum gas storage installation was relined with chlorinated polyethylene sheeting. Fresh water was pumped through a drainage tile under the pond to float the formed liner and trap air between the water surface and the underside of the liner. Satd. brine was then pumped into the pond to force the liner to the bottom of the pond and cause trapped air to be vented up the sides of the pond to the atmos. The water under the liner is pumped away through the drainage tile.

In plastics lined ponds for storing waste or fresh water. The removal of the trapped gases leaves the liner unrestricted for location and repair of leaks in the liner during use. (3pp)

FARB D15 81754 B/17 = US 4294-65
Measuring state of charge of suspensions - by measuring potential between electrodes disposed in cell with sample exposed to ultrasonic field

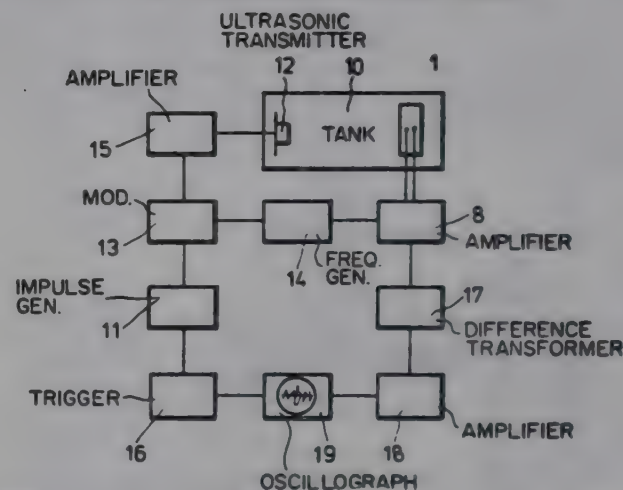
BAYER AG 14.10.77-DE-746179

F09 S03 S05 (13.10.81) *DE2746-179 + D21f-11

01.04.80 as 136188 (+ 06.10.78-US-949357) (1358JB)

To control addn. of retention agents to a fibrous suspension partic. for paper machine start-up and rapid operating control part of the suspension is passed into a measuring cell with two electrodes by an odd multiple of half ultrasound wavelength in the suspension, measuring ultrasonic vibration potential generated by a field in the cell, and adding agents in response to the potential value.

Potential value may be used to control addn. of flocculating agents which affect the suspension zeta-potential, and is measured continuously for addn. of retention agents to a continuously flowing suspension stream. (8pp)



COUL/ D15 72267 B/40 = US 4294-69
Biological filter substrate - comprising elongated plastics strip suspended in a stream to be treated

COULTHARD J L 28.03.78-AU-003787

A97 (13.10.81) *GB2017-075 C02c-01/04

26.03.79 as 024083 (006PW)

Biological filter for polluted liqs. such as sewage and industrial waste, comprises an anaerobic tank in which long strips of plastics material float randomly to vary the flow path of the liq. through the tank.

Indentations in the strips collect anaerobic biologically-active organism, and when the clusters are dead the varying liq. flow path breaks them away for fresh clusters to form.

Pref. the strips are PVC or polyurethane and are arranged in concentric or spiral arrays. (7pp)

WATE- ★ D15 81557 D/44 ★ US 4294-69
Swing diffuser for gas diffusion into liq. - with diffuser array movable between horizontal working and vertical servicing positions

WATER POLLUTION CON 25.01.80-US-115470

(13.10.81) B01f-03/04 C02f-03/20

25.01.80 as 115470 (205HM)

Gas diffusion system includes a swing type diffuser for use in a tank. This comprises a rigid upper hanger arm pivoted adjacent to the tank walls, for movement in an upright plane. It also includes a lower hanger arm pivoted to the upper arm for movement also in an upright plane.

An array of gas diffusers are connected to the lower portion of the lower hanger arm, the array being horizontal when operating.

submerged in the liquid in the tank. A device cooperates with the upper hanger arm and diffuser array for rotating the array to an upwardly extending servicing position above the surface of the liquid at the side of the tank. The rotation occurs as the upper hanger arm is pivoted to a servicing position.

Used primarily for waste water treatment of sewer effluents. Servicing of the array is simplified. (9pp)

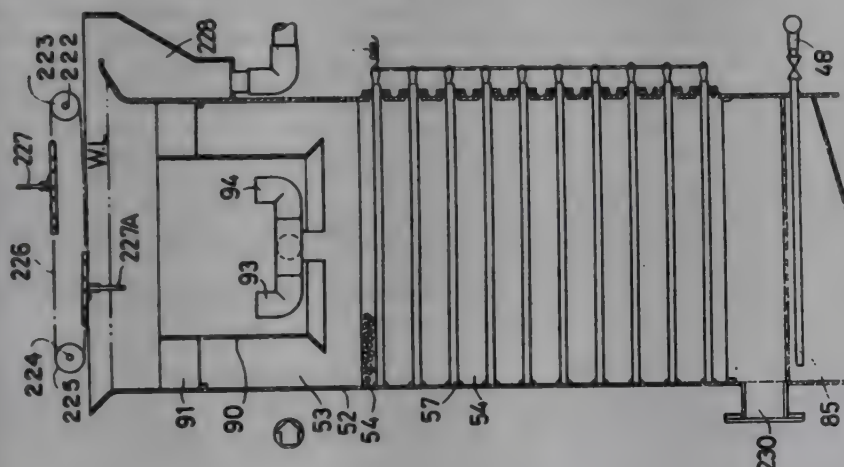
HITA D15 69997 C/40 = US 4294-697
Purification of waste water - using carbon bed adsorber containing electrodes to purify water and float out suspended solids

HITACHI KK 22.03.79-JP-034592

X25 + P41 (13.10.81) *DE2930-194 C02f-01/24 + B03d-01
25.07.79 as 060475 (1358TM)

Sewage treatment appts. includes a tank (52) with upper flotation (53) and lower electrolysis (54) zones, and a top inlet opening inwardly into a cylinder in the tank and with a lower skirt to collect bubbles. Anodes and cathodes (57) are located in a fixed bed of conductive porous adsorbent particles in the electrolysis zone.

Passage of current polarises particles and produces H₂ and O₂ bubbles on the surface of each to provide a rising flow sepg suspended and organic matter. The electrodes are pref. located horizontally and vertically and the adsorbent is granular active C to remove metal ions by electrodeposition, N compounds by occlusion and organic matter by adsorption. (9pp)



HERR/ D15 27803 C/16 = US 4294-699
Dem mineralising filter using disposable cartridge of ion exchange resin - in chamber spring loaded to collapse progressively as resin shrinks

HERRMANN W 29.05.78-DE-823432
J01 (13.10.81) *FR2427-121 B01d-15

29.04.80 as 144926 (+ 19.10.78-US-952635) (006PW)

Liqs. purification appts. comprises a bed of ion-exchange material in a container having a wall of which at least part is movable. A force is applied to the container, specifically by a compressed spring, so that the bed is kept under compressive stress and shrinkage is taken up to avoid channeling.

Pref. the spring bears against a thrust-transmitting member engaging a bellows portion of the container, e.g. a flanged sleeve. (5pp)

FARB D15 06150 D/05 = US 4294-703
Reducing chemical oxygen demand in waste water - by treating with small amt. of hydrogen peroxide and metal cpds.

BAYER AG 11.07.79-DE-927912

E37 (13.10.81) *EP--22-526 + C02f-03
02.07.80 as 165422 (963WB)

In decreasing the COD-content of effluent by treating with H₂O₂ in presence of a transition metal cpd. (I) improvement comprises adding to the effluent 5-40 (10-35)% of the calculated amt. of H₂O₂ required for total oxidn. of COD components, dissolving sufficient (I) in the effluent to give mol. ratio of H₂O₂ to transition metal of 30-3:1, bringing pH initially to 2-9, maintaining effluent at 5-100 deg.C, sepg. any flocculated material and subjecting remaining effluent to biological degradation.

Pref. starting pH is 3.5-6.5. Pref. (I) is at least 1 of Cu, Al, Zn and Fe. Pref. mol ratio of H₂O₂ to (I) is 20-10:1.

Treatment permits efficient subsequent biological degradation and avoids introduction of O₂-contg. gas. (4pp)

BOLI D15 81595 B/17 #US 4294-706
Purificn. of water with magnetic sepn. of pptd. sludge - using aluminium and/or ferrous sulphate-contg. magnetic material as apptn. agent

BOLIDEN AB 24.10.77-SE-011948 (23.10.78-WP-SE0063)
(13.10.81) *BE-871-458 B01d-35/06

23.10.78 as 117492 Based on WP7900230 (945WB)

Method of chemically purifying water with a subsequent magnetic sludge sepn. involves using a solid crystalline precipitant comprising Al₂(SO₄)₃ and/or FeSO₄ as major component(s) in which magnetic material is uniformly distributed.

The magnetic material may be ferromagnetic or paramagnetic and is esp. iron oxide. It is added to the Al or Fe sulphate in the form of a soln. or melt which is then crystallised under stirring. Pref. the magnetic material forms 1-15 (3-10) wt.% of the precipitant.

Uniform distribution of magnetic material in conjunction with flocculation is obtd. allowing more effective sepn. of the flocs. (5pp)

OSAG D15 47522 C/27 = US 4294-706
Treating effluent water contg. ammonia - by wet oxidn. at elevated temps. in presence of carrier catalyst

OSAKA GAS KK 16.05.79-JP-060886
(13.10.81) *NL7909-090 C02f-01/74

28.04.80 as 144696 (963WB)

Treatment of ammonia-contg. waste water comprises introducing it at pH 8.5-11.5 into a reactor for wet oxidn. with an oxygen-contg. gas in presence of a catalyst while maintaining the waste-water at 100-370 deg.C and at pressure permitting the waste water to remain in liq. phase; and supplying an alkaline substance to the reactor at a rate required to maintain at least 80% of the waste water introduced to the reactor and positioned towards the water inlet of the reactor at pH of at least 8 at all times and to permit the water resulting from the oxidn. to have pH 5-8.

The oxygen-contg. gas contains 1-1.5 times the amt. of oxygen required for decomposing the ammonia, organic and inorganic substances present. Catalyst is supported by at least 1 of zirconia and titania and comprises at least 1 of Fe, Co, Ni, Ru, Rh, Pd, Ir, Pt, Cu, Au, W and their cpds. which are insol. or slightly soluble in water.

Method has highly improved efficiency without a great redn. in pH of reaction system and accelerated consumption or degradation of catalyst. (11pp)

See Also

D18 PT--72536

D16: FERMENTATION INDUSTRY

INSP * D16 79765 D/44 ★BE -888-430
Aerobic bacterial fractions, esp. *Corynebacterium catarrhalis* - are medicaments with adjuvant, immunostimulant, antibacterial and interferon-inducing activity

INST PASTEUR 30.03.81-FR-006294 (22.04.80-FR-008976)
B04 C03 (15.10.81) A61k C12n

15.04.81 as 888430 (395RH)

Active therapeutic fractions obtd. from aerobic bacterial strains are new. The active fractions may comprise the washed entire cells, the delipidated entire cells, insoluble particular extracts of the delipidated entire cells or water-soluble extracts of the delipidated entire cells of the aerobic bacteria.

Preferred bacteria are aerobic *Corynebacteria*, esp. *Corynebacterium catarrhalis*, which is a new strain of aerobic

Corynebacterium.

Used as medicaments with adjuvant, immunostimulant, antibacterial and interferon-inducing activity, which may be formulated for intravenous administration or for subcutaneous administration, adsorbed on a mineral gel e.g. calcium phosphate and aluminium hydroxide gels. e.g. 1.365 mg of Al(OH)₃ and 1 mg of active fraction per ml. Activity tests show that aerobic *Corynebacterium* inhibit the growth of Lewis tumours, give 95-100% protection when 5 x LD₅₀ and 80-100% protection when 10 x LD₅₀ doses of E-coli, K-pneumoniae or L. monocytogenes are administered to mice and protect mice against *Listeria monocytogenes* infections. The fractions are used to increase resistance to bacterial and fungal infections in immune-deficient patients, protect patients having certain

malignant tumours against infections and to treat patients undergoing immuno-suppressive treatment such as intensive chemotherapy or radiotherapy. (39pp)

KOBA/ ★ D16 D/44 ★ BR 8001-421
Large-scale cultivation and reproduction of photosynthetic bacteria
KOBAYASHI M 11.03.80-BR-001421
(13.10.81) C12n-01/20

DMAT/ ★ D16 D/44 ★ BR 8002-158
Continuous prodn. of brandy, industrial alcohol and/or motor fuel
DE MATTOS A R 02.04.80-BR-002158
E17 H06 (13.10.81) C12m-01

BORK/ ★ D16 79825 D/44 ★ DD -149-868
Removing carbon dioxide from large scale fermenters - by blowing off to atmospheric pressure after removal of liquid
BORKMANN K 10.03.78-DD-204117
(05.08.81) C12c-13
10.03.78 as 204117 (513AS)
In a process for removal of CO₂ from large scale fermentors, the liq. is first removed from the fermentor over a period of not more than 30 hours, then the CO₂ is released to atmospheric pressure through a connector in the conical base of the reactor and removed via a gas lead. The compressed air used to facilitate emptying of the liq. contents of the reactor may also be used to eject the CO₂.

Process allows good removal of CO₂ from fermentors and facilitates cleaning of the reactor with alkaline agents such as NaOH, which react with CO₂. (6pp)

DEAK ★ D16 79826 D/44 ★ DD -149-869
Solvent removal from protein - by mechanical treatment with the addn. of water
AKAD WISSENSCHAFT DDR (PROT =) 19.12.78-DD-209896
H04 (05.08.81) C12n-01
19.12.78 as 209896 (513AT)

In a process for removing solvents from protein material contg. at least 20% water w.r.t. dry solids, the protein material is subjected to mechanical treatment at 20-90 deg.C esp. 30-70 deg.C to modify its structure. The mechanical treatment is e.g. crushing, grinding, pressing, milling etc.

Pref. the water content is adjusted to at least 20% but not more than 50% to avoid formation of a stickt prod. which is not suitable for mechanical treatment.

Process allows removal of solvent from yeast biomass protein prods. which reduced energy consumption and without denaturing of the protein. (9pp)

DEAK ★ D16 79827 D/44 ★ DD -149-870
Segg. liq. hydrocarbon medium from protein contg. fermenter effluent - by adding one or more sepn. aids e.g. starch or amylopectin and subjecting to mechanical treatment and centrifuging
AKAD WISSENSCHAFT DDR (PROT =) 04.07.79-DD-214099
H04 (05.08.81) C12n-01/02
04.07.79 as 214099 (513AT)

In a process for segg. hydrocarbons from fermentoreffluents obtd. by aerobic cultivation on liq. hydrocarbons, the effluent is contacted with one or a mixt. of starch, amylopectin, amylose, potato flour, cellulose, methylcellulose, carboxymethylcellulose, cereal flour, maize flour, rice flour, bran, dextran, synthetic carbohydrates, gelatin, agar-agar, gum arabic, xanthan, pectin, dextrin, firsts, casein, humic acid, guar flour, alginates, sugar cane cuttings, microorganisms, bentonite, carrageen, tragacanth, polyvinyl alcohol, and pref. amylopectin, potato starch or potato flour, mechanically treated and subsequently subjected to an additional gravitational field.

Pref. a mixt. of 2-5 of the above materials is used such that one material is present in a concn. of 70-90% and the other material(s) is/are present at 10-30%.

The additive mixt. is added to fermentor effluents prior to mechanical treatment such as stirring, pumping, pressing, kneading etc. The treatment is continued until at least 95% of the original hydrocarbon has been removed from the effluent. Process is useful e.g. for sepn. of edible protein from liq. hydrocarbon media. (11pp)

DEAK ★ D16 79828 D/44 ★ DD -149-872
Protein prodn. by culturing bacteria on methane or natural gas - with addn. of carbon dioxide as additional carbon source
AKAD WISSENSCHAFT DDR (PROT =) 06.07.79-DD-214169
H04 (05.08.81) C12n-01/28
06.07.79 as 214169 (513AT)

In a process for growing bacteria on methane or natural gas in the presence of an aq. mineral salt soln. and an O₂-contg. gas, the

growth is carried out in the presence of CO₂ as additional carbon source. The supplementary CO₂ may be metered into the fermentor as a gas or added in the form of a soluble carbonate. An increased concn. of dissolved CO₂ in the culture medium may be achieved e.g. by recirculating the gas or by maintaining an elevated press. in the system during fermentation.

Pref. culture medium comprises (per litre) 0.037 ml H₃PO₄, 35 ml KH₂PO₄, 12.5 ml MgSO₄·7H₂O, 19 mg KCl, 0.785 mg CuSO₄·5H₂O, 1.825 mg MnSO₄·4H₂O, 1.201 mg FeCl₂·4H₂O, 0.322 mg ZnCl₂, 0.360 mg CoSO₄·7H₂O, 0.109 mg NiSO₄·7H₂O, 0.186 mg Al₂(SO₄)₃·18H₂O, 0.883 mg Ca(NO₃)₂·4H₂O, 0.401 mg Na₂MoO₄·2H₂O, 1.286 mg H₃BO₃ and 0.077 mg CrCl₃·6H₂O. The soln. is made up with tap water and adjusted to pH 3 with H₃PO₄. The pH is pref. maintained by addn. of NH₃, which also serves as nitrogen source.

Process gives and end prod. of high protein content, e.g. prods. contg. up to 95% crude protein and all essential aminoacids. (9pp)

DEAK ★ D16 79829 D/44 ★ DD -149-873
Controlling process for cultivating microorganisms - by monitoring the nitrite content of the medium and adjusting process conditions if limiting value is exceeded
AKAD WISSENSCHAFT DDR (PROT =) 15.12.78-DD-209771
T06 (05.08.81) C12n-01/30 G05d-27
15.12.78 as 209771 (513NS)

A process is claimed for controlling the cultivation of microorganisms at constant temp. and constant pH, with constant aeration with an O₂-source and mixing, and with introduction of a liq. or gaseous carbon source in an aq. nutrient salt soln., by means of the metabolic prods. formed. In order to avoid factors having a deleterious effect on the system, the nitrite content of the medium is monitored and if this rises above a certain predetermined limit, the nitrogen content of the culture medium, the concn. of carbon source and oxygen in the culture medium or the effluent gas and (in the case of continuous fermentors) the flow rate of the nutrient soln. are determined and adjusted to their optimum values.

Allows simple and rapid adjustment of factors which adversely affect fermentation processes. (8pp)

SCHO/ ★ D16 79830 D/44 ★ DD -149-874
3-Hydroxy-butyrate dehydrogenase prodn. - by culturing *Pseudomonas putida* on acetoacetate or hydroxy-butyrate precursor

SCHOPP W 31.03.80-DD-220060
B04 (05.08.81) C12n-09/04
31.03.80 as 220060 (367RH)

Prodn. of 3-hydroxybutyrate dehydrogenase (HBD) is carried out by culturing *Pseudomonas putida* in the presence of a C source (I) which is a precursor of acetoacetate or hydroxybutyrate.

HBD is useful for diagnostic deternm. of ketone bodies. The process gives HBD with a high specific activity using inexpensive C sources.

(I) is pref. DL-leucine, DL-lysine, DL-carnitine, a 6-10C straight-chain hydrocarbon or a 4-16C fatty acid. Culture is pref. effected under submerge conditions in a liq. minimal medium, pref. with a controlled O₂ deficit, at 20-40 deg.C for 5-40 hr. The harvested cells are then disintegrated to obtain a cell-free protein extract, from which the HBD is isolated by fractional pptn. with (NH₄)₂SO₄. The HBD can be purified by chromatographing a soln. with a high sulphate, phosphate, or citrate concn. on 10-carboxydecyl sepharose and eluting with a soln. having a lower sulphate, phosphate or citrate concn. (9pp)

BEHR/ ★ D16 79831 D/44 ★ DD -149-875
Biological prodn. of citric acid and iso: citric acid - by fermentation of yeast in medium contg. specified amt. of nitrogen source

BEHRENS U 09.04.73-DD-170314
E17 (05.08.81) C12p-07/48
09.04.73 as 170314 (513)

Exactly sufficient of a nitrogen source is added to the nutrient soln. to give a biomass concn. of 5-15 g/l, then in the subsequent prodn. phase the known conditions for accumulation of citric acid (acid pH, recovery of the acid, good aeration etc.) are maintained.

Pref. the growth and production phases are carried out in separate vessels.

Pref. the yeast is cultured in a medium contg. X g/l nitrogen source (calculated as N) where X = desired amt. of biomass in g/l /12.5. Process allows high yields of (iso)citric acid to be obtd. with reduced input of raw materials. (7pp)

SARS ★ D16 79871 D/44 ★ DE 3012-085
Fluid sterility test container - with membrane filter above stopper pierced by cannula

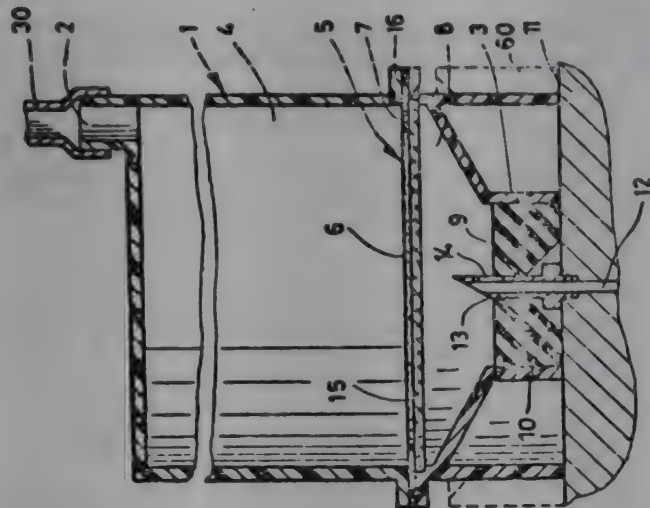
SARTORIUS GMBH 28.03.80-DE-012085

(22.10.81) C12m-01 C12q-01/04

28.03.80 as 012085 (39DH)

Device, used for a sterility test of fluids, has a mount for at least one cylindrical container, made e.g. of transparent plastics, with an inlet (2) on top and an outlet (3) at the bottom, closed by an elastomer stopper (9), which reseals the outlet after a cannula (13) has been withdrawn. The cannula has an oblique point and forms a part of a platform to which discharge hoses are connected.

The container can be produced at low cost and simplified the handling operations. No inlet air filter is required. (22pp Dwg.No.3)



BENC ★ D16 79904 D/44 ★ DE 3014-503
Tricalcium citrate continuous prodn. - by mixing citric acid soln. and calcium salt, reacting in separate stage, then pptn.

BENCKISER J A GMBH 16.04.80-DE-014503

E12 (22.10.81) C07c-59/26

16.04.80 as 014503 (1251BZ)

Continuous prodn of tricalcium citrate (I) comprises reacting a citric acid contg soln with a Ca cpd and then pptn in a separate processing stage. The new feature is that (a) mixing of the reactants and (b) reaction, are separated from each other in both space and time. Pref (a) is carried out in a static mixer, and (b) in a flow-through tube reactor.

Esp. dwell time in the mixer is at most 1 sec, pref below 0.1 sec, and in the reactor at most 20 min, pref below 1 min, with reaction temp 20-50 (30-40)deg C. Pptn is pref in a stirred vessel at 60-90 (65-75)deg C and pH 5.4-6.5, with mean dwell time 0.3-2hr.

Pptn is pref in (a cascade of) stirred vessels, esp two with the first at 40-60 deg C and pH 5.8, and the second at 60-90 deg C and pH 6.5. In a modification both reaction and pptn are carried out in (a cascade of) such vessels.

The method is esp applied to crude fermentation solns and gives a purer prod than known batch processes. The residence time in the reactor is precisely controlled so that premature pptn and development of local regions of alkalinity are avoided. (14pp)

REIC/ ★ D16 79965 D/44 ★ DE 3015-261
Pollen extract for flavouring drinks - prepd. by extrn. with ethyl alcohol and opt. distilling off solvent

REICHEL D 21.04.80-DE-015261

(D13) (22.10.81) A231-02/26 C12g-03/06

21.04.80 as 015261 (903JB)

Pollen extract is used as a flavouring for alcoholic and non-alcoholic drinks. Finely ground pollen is mixed with 42% ethyl alcohol in a wt. ratio 1:25-30 and the soln. (previously heated to 30 deg. C) is filtered.

If non-alcoholic drinks are to be flavoured the solvent is distilled off at 45 deg. C to leave a pollen extract. (3pp)

MERI D16 09813 B/05 = EP G000-932
(N)-Acyl-thienamycin cpds. prepn. - by coupling thienamycin and an acyl cpd. with a penicillin amidohydrolase

MERCK & CO INC 19.08.77-US-825884

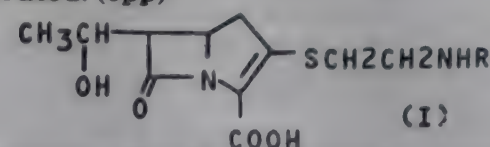
B02 (21.10.81) *US4135-978 C07d-487/04 + C12p-17/18

18.08.78 as 100700 (945JB) (E) FR2070155 E(BE CH DE FR GB LU NL SE)

Prepn. of N-acyl thienamycins of formula (I) (where R is acyl) comprises contacting thienamycin with an acyl cpd. in aq. medium with a penicillin amidohydrolase (E.C. 3.5.1.11). Suitably, the penicillin amidohydrolase from *Escherichia coli* N.C.I.B. 8743 is used. The acyl gp. is pref. -CX-R' where X is O or S and R' is 5-10C (un)branched alkyl or 6-10C aryl(oxy) both opt. substd. with OH, SH alkyl, alkoxy, halo, amino, nitro or carboxy.

The process is used in the recovery of thienamycin from fermentation broths and concentrates. Thienamycin can be

easily regenerated. (6pp)



UKSO- D16 65022 B/86 = EP G003-916
Sepn. of leukocytosis producing factor haemagglutinin prepn. - by affinity chromatography of Bordetella cells prepn.

UK SEC SOCIAL SERV 01.03.78-GB-008089

B04 (21.10.81) *EP---3-916 C07g-07 + C12n-09/48

01.03.79 as 300312 (974JB) (E) 1.Jnl.Ref E(CH DE FR NL SE)

Leukocytosis Producing Factor-haemagglutinins (LPF-HG) are sep'd. from a liq. prepn. derived from Bordetella cells. The liq. prepn. is subjected to affinity chromatography on a stationary phase comprising an insol. polymeric support and, bound to this, a sialoprotein (I) or other substance rich in sialic acid. (I) is a glycoprotein contg. sialic acid.

Pref. the bacterium is *B.pertussis*, *B.Bronchosepticus* or *B.Parapertussis*. Pref. (I) is a plasma sialoprotein or a salivary mucin. (8pp)

NYBL- D16 89757 B/50 = EP G005-864
Sub:particulate mass contg. hepatitis B surface antigen - useful as vaccine for protecting against viral hepatitis

NY BLOOD CENT INC 07.06.78-US-913422

B04 (21.10.81) *EP---5-864 A61k-39/29 + C12n-07

06.06.79 as 101777 (974MR) (E) FR2331354 E(AT BE DE FR GB NL SE)

An antigenic compsn. useful as a vaccine or vaccine intermediate comprising a subparticulate mass of particle size less than 20 nm and contg. hepatitis B surface antigen (HBsAg) is prepd. by contacting an antigenic mass contg. HBsAg of particle size at least 20 nm with a detergent.

Pref. the detergent is a physiologically acceptable non-ionic or ionic detergent. Pref. the contacting is for 1-4 hours, esp. for at least one hr. at 4-90C. (27pp)

FARB D16 62657 C/36 = EP G015-388
Glycoside hydrolase inhibitor 1-deoxy-nojirimycin prodn. - by cultivation of bacillaceae strains in media contg. sorbitol as carbon source

BAYER AG 23.02.79-DE-907190

B04 (21.10.81) *DE2907-190 C12p-17/12

04.02.80 as 100552 (913MR) (G) FR2378854 FR2385733 E(AT BE CH DE FR GB IT NL SE)

1-Desoxynojirimycin (I) is produced by culturing Bacillaceae strains in nutrient solns. contg. sorbitol as the carbon source. Culturing is effected in conventional fermentation vessels at 15-80 deg.C while aerating. (I) is a glycoside hydrolase inhibitor, and also used to prepare similar N-substd. cpds.

Pref. organisms of the genus *Bacillus*, esp. strains DSM 7 or DSM 704 are used. Culturing is started at 15-30 deg.C., and the temp. increased to 30-50 deg.C over a period covering the second half of the logarithmic growth phase and the first half of the stationary phase. During the opt. stepwise multiplication of the inoculum, it is heated to 80-100 deg.C and cooled to the fermentation temp. at least once.

The prod. is adsorbed directly onto strongly acid ion exchangers (H+ form) directly from the soln., or after first sepg. off the culture cells, from the culture filtrate. It is desorbed with 0.5-2N ammonia, the active fractions adsorbed onto weakly acid ion exchangers (H+ form) and desorbed with 0.02-0.1N HCl. The active fractions are chromatographed over strongly basic ion exchanger (OH- form), the active basic eluate evaporated to dryness, the residue taken up in a polar solvent at elevated temp., and the prod. recrystallised by cooling. (6pp)

ASAH D16 32558 D/18 = EP --37-836
Polyvinylidene fluoride resin hollow filament microfilter - has annular cross-section with inner and outer skinlayers on porous support layer produced by ring orific extrusion

ASAHI KASEI KOGYO 15.10.79-JP-132739

A14 J01 (A88) (21.10.81) *WP8100-969 B01d-13 B01d-31

13.05.80 as 900913 Based on WP8100969 (1412HM) (E) J53019180 J54016382 E(AT CH DE FR GB LI LU NL SE)

Polyvinylidene fluoride resin hollow filament microfilter has a void ratio of 60-85% and a mean pore diameter of 0.05-1.0 micron and has an annular cross-section comprising an inner, porous support layer (2) with a mean pore diameter of 1-10 microns and skin layers (1) on the inside and outside of the annular cross-section with a mean pore diameter of 0.05-1.0 micron, the mathematical value of the support layer mean pore diameter divided by the skin layer mean pore diameter being equal to or greater than 4.

Pref. the support layer includes macrovoids that extend radially w.r.t. the annular cross-section to a length that is 10-80%

of the thickness of the filter membrane. A spinning soln., e.g. at 60 deg.C containing pref. 11-30 wt.% polyvinylidene fluoride resin, 0.5-30 wt.% surfactant, pref. two or more surfactants, one of which is pref. a non-ionic surfactant with a main chain or side chains with alkylene oxide or polyalkylene oxide gps., and optionally, a dispersing medium is extruded together with inner and outer coagulant solns., e.g. water at 70 deg.C, through a ring orifice, or is extruded with an inner coagulant led into a coagulant soln.

The filter has high selectivity for filtering yeasts, bacteria etc., and stable performance in severe conditions. (90pp)

EMBL- D16 77974 D/43 = EP --37-931
Mfg. highly immunogenic detergent, and lipid-free sub-unit vaccines - against influenza parainfluenza and Rhabdo viruses, by centrifugation of virus in a sugar gradient

EMBL EURO LAB MOLEK 14.04.80-DE-014189

B04 (21.10.81) *DE3014-189 C12n-07/06 + A61k-39/14

24.03.81 as 102213 (280RP) (G) No-Citns. E(BE CH DE FR GB LI NL SE)

Prod. of immunogenically active lipid and detergent-free soluble aggregates of amphiphilic membrane proteins of parainfluenza, influenza rhabdo viruses comprises extraction of the membrane with surface-active agents. (A) The views is mixed with a non-inorganic or bile acid type detergent; (B) the mixture in buffered aqs. salt solution is overlaid on a detergent free sugar gradient which is itself overlaid with a detergent-containing sugar solution, and centrifuged at least 150.000g; (c) the protein-contg. fraction is isolated and dialysed against buffer solution; and (D) the protein imcells solution obtained is lyophilised.

Prod. of highly immunogenic subunit vaccines against influenza, parainfluenza and rhabdo viruses which are free from undesired side-effects attributable to other virus components. The vaccine protein is obtained in the form of cosette-like micellar aggregates which can be taken up in suitable solvent (e.g. physiological saline) for parenteral administration. (15pp)

WHIT/ D16 78311 D/43 = EP --38-134
Detecting live organisms in materials - by recording light emitted when disrupted in presence of e.g. fire-fly essence

WHITLOCK G D 15.04.80-GB-012364

S03 (21.10.81) *GB2073-885 G01n-21/76 + G01n-33/48

27.03.81 as 301356 (1251JB) (E) No-Citns. E(CH DE FR LI NL SE)
Live organisms are detected by causing them to produce bursts of light when disrupted in the presence of a light producing agent (A), specifically firefly essence. Pref. the test material and (A) are first placed in contact, then the microorganisms disrupted so that they release components (esp. ATP) which react with (A) to produce light. The organisms are pref. disrupted by violent agitation with alumina, ballotini beads, sand or carborundum and light is detected as an electrical pulse from a photon detector. An appts. for this method is also claimed; it comprises a transparent container for sample and (A) (enclosed in a light-tight chamber), device for agitating the sample mixt. either gently or violently and photon detectors.

Very small numbers of bacteria or viruses (e.g. 10 per ml). can be detected in less than 10 sec. Impure reagents and samples (i.e. those contg. ATP), can successfully be examined. (19pp)

FUJI- ★ D16 80111 D/44 ★ EP --38-150
Serodiagnostic method by reacting sample with immobilised antigen - then treatment with labelled anti-antibody, esp. for detecting syphilis

FUJIZOKI PHARM KK 10.04.80-JP-046256

A96 B04 S03 (S05) (21.10.81) G01n-33/54

02.04.81 as 301451 (1251NS) (E) DE2733380 GB1503409 US3650437 FR2126760 GB1363565 GB1185065 US3600494 E(AT BE CH DE FR GB IT LI LU NL SE)

Process comprises reacting an appropriate antigen (AG), bonded to a solid support, with a test serum sample, then reacting the resulting solid phase prod. with a labelled anti specific antibody (AB'). The final prod. is labelled by AB' in accordance with the amt. of anti-organism specific antibody (AB) present. The method can be applied to diseases where two antibodies are prod. at different stages of infection there several supported AG are reacted with samples, then one group of resulting solid phases reacted with AB' against the first antibody and the second group with AB' against the second antibody. The ratio of first AB to total AB is then calculated to determine the stage of infection.

The method is esp. applied to the diagnosis of syphilis. Reliable detection of the disease in its early stages is possible. The amt. of both IgM (the first antibody prod. against syphilis) and of total antibody can be measured simultaneously with high sensitivity and accuracy. (12pp)

UPJO ★ D16 80114 D/44 ★ EP --38-156
Plasmid PUC 10 of molecular wt. 6.8 mega-daltons - useful as cloning vector in recombinant DNA research

UPJOHN CO 16.04.80-US-140755

B04 (21.10.81) C12n-15 C12p-19/34

06.04.81 as 301482 (1248KB) (E) No-Citns. E(BE CH DE FR GB IT LI NL SE)

Pure plasmid pUC10 of approx. molecular wt. 6.8 mega-daltons and characterised by single restriction endonuclease sites for the enzymes ECOR1, BclI and XhoI is new.

The plasmid is useful as a cloning vector in DNA research, in which desired genes are incorporated into the plasmid and it is then transformed into a suitable host. It is esp. useful as a vector in Streptomyces organisms, e.g. to increase antibiotics prodn. by such organisms.

Pure pUC10 is obtd. by growth of Streptomyces erythreus, esp. NRRL 2338, on a growth medium until sufficient mycelial growth has occurred. Then the mycelia are fragmented and incubated in a growth medium. After a suitable time the culture is harvested and the resulting mycelia are lysed and pUC10 is isolated from the lysate. The cultivation is at 28-32 deg.C for 36-48 hrs. The fragmented mycelia are incubated in a growth medium, contg. glycine. (11pp)

HARV- ★ D16 80125 D/44 ★ EP --38-182
Synthesis of mature protein or polypeptide - by using bacterial host transformed by cloned vehicle contg. DNA fragment etc.

HARVARD COLLEGE 11.04.80-US-139225

B04 (21.10.81) C12n-01/20 C12n-15 C12p-21

09.04.81 as 301561 (1248KB) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Synthesis in a bacterial host, with secretion through the membrane of the host, of a selected protein (I) or polypeptide (II) comprises cleaving a cloning vehicle to form a cleavage site after a promoter of a bacterial gene or phage gene or their DNA fragment. Then forming a hybrid gene by inserting into the cleavage site a non-bacterial DNA fragment that codes for a precursor of (I) or (II); it includes a signal sequence of the selected (I) or (II). A host is transformed with the gene and it expresses the (I) or (II) in mature form.

Cloning vehicle comprising a promoter of a bacterial or phage gene; a translational start signal; a non-bacterial DNA fragment coding for a signal sequence of a non-bacterial (I) or (II); and a non-bacterial DNA fragment coding for (I) or (II) is new. A host transformed with the cloning vehicle is new.

The (I) or (II) is a eucaryotic cell protein, e.g. proinsulin, serum albumin, human growth hormone, parathyroid hormone, interferon etc. From the host the mature (I) or (II) is obtd. directly without the need to remove the signal sequence or other chemical substituents present on the (I) or (II) precursor as synthesised by the bacterial host. The (I) or (II) is recovered from the periplasmic space of the bacterial host cell or from the culture medium. (34pp)

MERI ★ D16 80154 D/44 ★ EP --38-265
Vaccine of gp. B streptococcal capsular polysaccharide(s) - useful for protecting neonate(s) and infants against meningitis etc.

MERCK & CO INC 14.04.80-US-140031

B04 C03 (21.10.81) A61k-39/09 C12p-19/26

13.04.81 as 400585 (1248HM) (E) EP--8969 10Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Vaccine compns. comprise a unit dosage or multidosage integer of the dosage of an effective amount of at least one of the following four Gp. B Streptococcus type-specific polysaccharide together with a physiologically acceptable medium. Each polysaccharide comprises hexoses (galactose and glucose), glucosamine and sialic acid, with the respective molar ratios and molecular wts. as follows (1) type Ia with 3:1:1 and 800000 daltons, (2) type Ib with 3:1:1 and 500000 daltons, (3) type II with 5:1:1 and 500000 daltons and (4) type III with 3:1:1 and 150000 daltons. The vaccines are useful for conferring protection against Gp. B Streptococcus infections esp. meningitis, among neonates and young infants and against mastitis among dairy cattle. For prevention of the neonatal diseases, pregnant women and women of child bearing age are vaccinated. Protection against Gp. B Streptococcus infections is given by passive vaccination of subjects with an impaired immune system, antiserum from a host who has received the vaccine being used for injection. (60pp)

INSP ★ D16 80180 D/44 ★ FR 2478-470
Immunological agents - having pharmacologically active material attached to human, animal or microorganism cells

INST PASTEUR 24.03.80-FR-006537

B04 S03 (S05) (25.09.81) A61k-39/38 G01n-33/54

24.03.80 as 006537 (520NS)

Cellular preparations in which cells have a pharmacologically

active material fixed to their surface are new. The cells may be derived from human or animal sources, or from microorganisms and may be normal cells or tumoral cells. Pref. cells are lymphocytes and fibroblastic cells such as MRC5 and WI38. The pharmacologically active material is preferably one that causes the formation of antibodies or the fixation of antibodies. Typically active material includes hormones, haptens, toxic substances, detoxified or inactivated toxic substances, and seric constituents. The term 'toxic substances' include toxins, bacteria, bacterial fractions, substances liberated by bacteria viruses, viral fractions, parasites, venoms etc.

By using cells as the carrier material, the immunogenic powder is increased, compared to conventional supports such as aluminium hydroxide. (22pp)

THOM/ ★ D16 80241 D/44 ★ GB 1601-155
Protease recovery from fluids, esp. plant juices - by sorption with inorganic sorbent

THOMSON A R 26.05.78-GB-023669

(28.10.81) C12n-09/48

26.05.78 as 023669 (367HM)

Sepn. of proteases from fluids is carried out by contacting the fluid with an inorganic sorbent for protease, and recovering the sorbed protease from the sorbent. The sorbent pref. comprises porous TiO₂ particles prep. as described in GB 1421531.

The plant juice is pref. contacted with the sorbent at a pH of 8 or less (esp. 5.5 or less), opt. after clarification by screening, centrifugation or filtration. The sorbed protease can be recovered from the sorbent by eluting with an aq. soln. having a higher pH and/or ionic strength than the juice. The eluting soln. can be an aq. buffer soln. with a pH greater than 5.0 and an ion concn. of at least 0.1 M, or the protease depleted juice which has been adjusted to higher pH and opt. contains added salt. The isolated protease can be formulated as a powder or aq. soln., opt. contg. an activator (esp. metabisulphite), a stabiliser (esp. a polyol) and/or a preservative (esp. benzoic acid, sorbic acid or metabisulphite).

The process is esp. useful for recovering sulphhydryl proteases (e.g. papain, bromelain, ficin, calotropain or maxicain) from raw plant juices. (12pp)

COMM- D16 82444 C/46 = GB 1601-465
Anaerobic slurry digester with capping - of interlocking elements with ballast tanks and gas release valves

COMMONWORK ENTR LTD 29.06.77-GB-027295

Q74 + P11 Q34 (28.10.81) *US4230-580 C02f-03/28

31.05.78 as ----- (006MR)

Anaerobic slurry digester of rectangular plan view has a cover comprising inverted-channel members of elongated form positioned side-by-side and with gas release outlets in their upper regions.

Upwardly-open flanges at the edges of the channel members form troughs which contain ballast. The channel members form caps which are held side-by-side either when floating on slurry or when raised by gas under press.

Assemblies of caps of variable overall sizes suit digesters of many different sizes, from farm use to industry, since the caps are standard size units. (11pp)

SAKA D16 84059 A/47 = GB 1601-479
Deca:hydro-naphthalene-spiro-benzofuran derivs. - with complement inhibiting activity, esp. for treating nephritis

OTSUKA PHARM KK 10.02.78-JP-014674 (30.06.77-JP-078641)

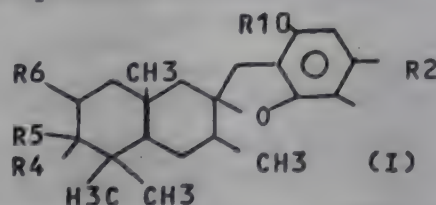
B02 (28.10.81) *BE-867-095 A61k-31/33 C07d-307/82 C07d-493/02 + C07d-317

2.05.78 as 019140 (+ 29.12.77-JP-158959) (974MR)

Novel sesquiterpene derivs. are of formula (I) or their pharmaceutically acceptable base addn. salt.

R1 is H, lower alkanoyl or lower alkyl. R2 and R3 are each formyl, hydroxymethyl, OH, carboxyl, lower alkanoyloxy methyl or -CH:CR7R8, or R2 and R3 together are -CHR9.O.CO-. R7 and R8 are each H, CN, lower alkoxy carbonyl or carboxyl. R9 is H or OH. R4 and R6 are each OH or lower lkanoyloxy and R5 is H, or R4 and R5 together are O and R6 is lower alkanoyloxy, or R4 and R6 together are lower alhylidenedioxy and R5 is H.

(I) have anticomplementary and anti-tumour activity. (47pp)



STWE ★ D16 80285 D/44 ★ GB 2074-036
Alcohol and distillers grains prodn. - using dryer operated at elevated pressure with reuse of vapours for process heat

STONE & WEBSTER ENG CORP 17.04.80-US-141256

E17 (28.10.81) B01d-01/26 B01d-03/14

16.04.81 as 112071 (955HM)

In a method for the distn. of a fermented feed to produce alcohols, the feed is distilled in a first column, and sepd. into a first spent stream contg. dissolved organic matter, which is passed to an evapn. zone having at least two regions of successively reduced pressure, and is then distilled in a second column; and a second spent stream contg. insoluble organic matter which is introduced into a drying zone at a pressure below that of the lower region of the first column, to obtain dried distillers grains. A pressurised vapour stream is taken from the drying zone to the first column.

The alcohol is esp. ethanol for use as a fuel. The process has reduced energy requirements, as heat is recovered from recycled 'dirty' process steam. Cooling water requirements are reduced and the need to operate distn. columns at elevated pressure to recover condenser heat is avoided. (6pp)

ATZE/ ★ D16 D/44 ★ IT 1052-391
Herbal liquor prepn.

ATZENI A 24.11.75-IT-052376

(20.06.81) C12g

TAKA/ ★ D16 80439 D/44 ★ J5 6117-790
Sake prepn. free of koji odour - by refining soln. of saccharified rice and adding koji obtd. using *Aspergillus usami*

TAKAGI T 19.02.80-JP-018542

(16.09.81) C12g-03/02

19.02.80 as 018542 (5RH)

Method comprises (a) saccharifying powdery rice enzymically, (b) refining the saccharified soln. using active carbon, anion exchange resin and cation exchange resin, (c) mixing the refined soln. and 'koji' prep. with *Aspergillus usami*, (d) adding 'sake' yeast to the mixt. and (e) fermenting it.

The koji prep. with *A. usami* is free of koji odour and contains large amt. of organic acid such as citric acid, malic acid, etc. For the purpose, *A. usami* IFO4388, etc. may be used. Practically the concn. of the refined saccharified soln. is regulated to be 10-15 and the fermentation is stopped at alcohol concn. 8-12%.

Sake which is free of koji odour and has fruit wine-like aroma, can be prep. easily from inexpensive material such as powdery rice, white bran, etc. (3pp)

JAAT ★ D16 80441 D/44 ★ J5 6117-792
Fixing bio:active substance in polymer matrix - contg. protective substance for bio:active compsn. glutaraldehyde and polymerisable vinyl monomer

JAPAN ATOMIC ENERGY RES 18.02.80-JP-018788

A96 (16.09.81) A61k-09 C08f-02/44 C08f-20/10 C12n-11/08

18.02.80 as 018788 (5AT)

The method is characterised by keeping the compsn. composed of (a) at least one kind of bioactive substances, (b) protective substance (a), (c) glutaraldehyde and (d) polymerisable vinyl monomer at 0-10 deg.C for 1-5 hrs. to polymerise the compsn.

Vinyl monomer is usually used ca. 10 w/w% on the compsn. and in the case of fixing enzyme it is used 20-80 w/w% on the compsn. Glutaraldehyde is used 1-10 w/w% on vinyl monomer. Examples of the vinyl monomer are ethyleneglycol-diacrylate, ethyleneglycol-dimethacrylate, polyethyleneglycol-diacrylate, 2-hydroxyethylacrylate, etc. and examples of protective substance are cow serum albumin, egg albumin, glutamic acid, glycylglycine, glutaric acid, etc.

The word bioactive substance is used to describe compsns. which act physiologically and/or biochemically in living body and examples are enzyme, microbial body, cell, organella, etc. By this method vinyl monomer is polymerised at low temp. using extremely small amt. of glutaraldehyde as the catalyst and bioactive substances can be fixed in the polymer matrix stably with high activity yield. (4pp)

AMAN ★ D16 80442 D/44 ★ J5 6117-794
Coenzyme/Q prodn. - in solid culture medium to increase yield

AMANO PHARM KK 19.02.80-JP-018541

B05 (16.09.81) C12p-07/66 C12r-01/66

19.02.80 as 018541 (69WB)

Microorganisms used are those which grow on solid culture medium, partic. Hyphomycetes. *Paecilomyces varioti* No. 9215 (FERM-P No.5304), *Aspergillus clavatus* IAM 2041, *Monascus anka* IFO 4478, *Cladosporium fulvum* ATCC 0391, *Aspergillus fumigatus* IAM 2046, *Gibberella fujikuroi* IFO 6607, *Penicillium chrysogenum* IAM 7123, *Aspergillus niger* IFO 9455, etc. are cited.

The solid culture medium may be of wheat, rice, corn, wheat bran and cereal. If necessary, organic substances such as yeast

extract, soybean extract, corn steep liquor, inorganic substances such as ammonium salt or nitrate salt and micro nutrients such as vitamins may be used. Solid medium is sprayed with water, boiled and cooked, seed microbes inoculated or the material and resultant mixt. is cultured by allowing to stand or by aerating. Coenzyme Q is isolated by adding mixt. of methanol, pyrrogallol and sodium hydroxide to solid culture, saponification of the mixt. under reflux at 80-90 deg.C for 30 mins. to 1 hour and extracting coenzyme Q from saponified liquor with solvent such as n-hexane. Extract is fractionally purified using a silicic acid column or silica gel column etc. and isolated by crystallising out from ethanol. (5pp)

MEIJ ★ D16 80504 D/44 ★ J5 6118-094
Antibiotic SF-2111 - having antifungal and antibacterial action.,
obtd. by cultivating streptomyces sp SF-2111
MEIJI SEIKA KAISHA 22.02.80-JP-021140
B04 C03 (16.09.81) C07g-11

22.02.80 as 021140 (22RH)
Novel antibiotic SF-2111 which has anti-fungal and antibacterial activity, whose hydrochloride has the following properties; white amorphous powder, decomposed with foaming at 189-193 deg.C, elementary analysis of C:42.42%, H:6.23%, N:16.19% and Cl:4.14%, characteristic absorption at 220-370 nm of UV, soluble in water, hardly soluble in methanol, ethanol, butanol, acetone, ethyl acetate, chloroform, benzene and ether, stable in acidic to neutral and instable in alkaline, positive to Ninhydrin reaction, sulphuric acid reaction, Torence reaction, negative to ferric chloride reaction, silver nitrate reaction and biuret reaction, Rf value of silica gel chromatography of n-butanol:acetic acid:water (2:1:1) of 0.14, and n-propanol:pyridine:acetic acid:water (15:10:3:12) of 0.56. The cpd. is prepd. by cultivation of Streptomyces sp. SF-2111 (FERM No. 5350) in culture medium containing carbon source, nitrogen source, inorganic cpds., etc. under aerobic conditions at 25-37 deg.C for 2 to 7 days. (11pp)

AMAN ★ D16 80625 D/44 ★ J5 6118-671
Specific enzyme immunoassay of hybrid proteins - used in investigation of metabolic phenomenon or diagnosis of diseases
AMANO PHARM KK 22.02.80-JP-020491
B04 (17.09.81) G01n-33/54

22.02.80 as 020491 (52KB)
In determining hybrid proteins which are aggregates consisting of physiologically active and immunologically different units, the method comprises preparing an insol. antibody made by combining an antibody specific to one unit of the aggregate with a solid phase (prim. reaction), making antigen-antibody reaction between the unit and the insol. antibody to combine the insol. antibody with the aggregates (sec. reaction), reacting the insol. antibody-aggregate complex with an antibody specific to another unit of the aggregates and combined with a labelled enzyme, and measuring the activity of labelled enzyme bound to the insol. antibody-aggregate complex to determine the amt. of aggregates consisting of immunologically different unit portions.

Hybrid proteins in the living humor, e.g. isoenzyme, metabolites, can be determined precisely. For example, in rat's cerebral enolase consisting of alpha, alpha-type, alpha, gamma-type and gamma, gamma type enzymes, the alpha, gamma type enzyme can specifically be determined. The method is applicable to investigation of metabolic phenomenon or diagnosis of diseases. (5pp)

AJIN ★ D16 80626 D/44 ★ J5 6118-672
Antigen or antibody measurement - where reaction prod. of antigen with antibody is contacted with antibody is contacted with antibody to labelled substance to yield ppte.
AJINOMOTO KK 23.02.80-JP-022063
B04 (17.09.81) G01n-33/54

23.02.80 as 022063 (52RH)
In an immunochemical determin. of antigen or antibody, improvement is that reaction prod. of antigen with antibody is contacted with an antibody to labelled substance used to yield ppte. The antibody to labelled substance is F(ab)2.

The invention improves both enzyme immuno assay (EIA) and radioimmuno assay (RIA). In this invention, 10 times or more amt. of serum as specimen to be tested is required c.f. that in the prior art, but the sensitivity, preciseness and reproducibility of the method is higher than in the prior art. (7pp)

MORG D16 09345 A/05 = J8 1042-264
Bifidus powder contg. lactulose - used in prevention or treatment of intestinal disorders
MORINAGA MILK KK 10.06.76-JP-067067
B04 (03.10.81) *J52151-787 A61k-35/74 C12r-01/* + A281-01/28 C12n-01/20

10.06.76 as 067067 (52JB)
Bifidus powder contg. lactulose comprises a dispersing agent and

Bifidus organism. The homogeneous mixt. contains 1 g 40-70% (by wt.) lyophilised organism contg. at least 20 x 10 power 10 live organism and 60-30% (by wt.) of lactulose powder contg. at least 55% (by wt.) lactulose. The lactulose content of the mixt. is 28-57% (by wt.), moisture less than 2.5% and the Bifidus content at least 8 x 10 power 10/g.

Bifidus preps. have been used in prevention or treatment of intestinal disorders such as diarrhoea, intestinal catarrh, constipation, etc. The Bifidus prepn. contg. lactulose when orally administered accelerates the growth of Bifidus organism in the intestine, and during preservation the live organism is kept in high content. (J52151787) (8pp)

MITU D16 28162 Y/16 = J8 1042-265
Promoting multiplication of fine algae in a culture medium - by adding isobutanol or a condensate of isobutanol and urea
MITSUBISHI CHEM IND KK 04.09.75-JP-107252
A97 P13 (03.10.81) *J52031-885 A01g-33 + C12n-01/38 C12r-01/89

04.09.75 as 107252 (5KB)

The condensate of isobutanol and urea is a solid substance, which is difficultly soluble in water and slowly forms isobutanol and urea by hydrolysis. Isobutanol is also utilised as carbon source and urea formed by the hydrolysis can be utilised as nitrogen and carbon dioxide source.

The condensate includes diureide-isobutane obtd. by condensing 1 mol. of isobutanol and 2 mol. of urea, and isobutanol-urea oligomer of polymerisation degree 5-10 obtd. by condensing almost equimolar quantities. (J52031885) (5pp)

SNOW D16 53247 X/28 = J8 1042-266
Lipase having strong glyceride and ester productivity - and prepd using a strain of genus rhizopus
SNOW BRAND MILK PRODUCTS 20.11.74-JP-132795
(03.10.81) *J51061-687 + C12n-09/20 C12r-01/84

20.11.74 as 132795 (BZ)

Strain HI-S of Rhizopus chinensis is cultured and lipase is collected from the culture prod. Culture of the strain can be carried out in or on a liq. or solid culture medium usually used in ordinary microbiological prodn. of lipase, pref. at 25-37 deg.C for 3-4 days. The quantity of the produced lipase is maximised when the pH at the end of the cultivation is 5.4-6. The produced lipase is purified by enzyme purification into a high unit prod. and preserved after freeze-drying at low temps. The obtd. lipase decomposes oils and fats as well as having strong glyceride and ester producing ability. (J51061687) (5pp)

SANY D16 16436 A/09 = J8 1042-267
fructan hydrolase prodn. - by culturing Actinomyces, Chainia or Actinosporangium
SANYO CHEM IND LTD 20.05.74-JP-056269
(03.10.81) *J50148-585 + C12n-09/24 C12r-01/*

20.05.74 as 056269 (HM)

Fructan hydrolase was produced by Actinomyces, Chainia or Actinosporangium. In an example, Actinomyces longisporus IFO-12885, C. violens IFO-12557, and Actinosporangium violaceum ATCC-15813 were cultured with shaking at 28 deg. for 72 hrs. on 100 ml medium (pH 6.0) contg. fructan of Aerobacter levanicum 0.5, urea 0.05, KH2PO4 0.2, MgSO4 0.03 and CaCl2 0.03%. Sp. viscosity of 5% levan soln. (8.3) decreased to 1.0, 3.1 and 2.1 by reaction of the culture filtrate and reducing sugar prodg. activities were 20.2, 9.5 and 3.0 units/ml respectively. (J50148585) (3pp)

KURS D16 33120 X/18 = J8 1042-268
Fixed enzyme prepn - using copolymer gel of ethylene, vinyl acetate and vinyl chloride
KURARAY KK 09.09.74-JP-103746
A96 B04 (A14 A17) (03.10.81) *J51032-785 + C081-31/04 C12n-11/04

09.09.74 as 103746 (RH)

Copolymer consisting of 20-80 mole.% ethylene unit and 80-40 mole.% vinyl acetate unit is partly saponified. Copolymer contg. vinyl acetate at more than 70 mole.% is converted to polyvinyl alcohol unit by heating to more than 60 deg.C and dissolved in solvent of water and polar organic solvent. Enzyme is added with cooling to 40-0 deg.C, to fix gel in polymer lattice. (J51032785) (3pp)

JAAT D16 37369 Y/21 = J8 1042-269
Fixing enzymes or organisms at low temp. - by mixing with polymerisable monomers in soln. and polymerising at below minus 20 degrees Celcius
JAPAN ATOMIC ENERGY RES 08.10.75-JP-120816
A96 B04 (D13) (03.10.81) *J52047-982 + C081-02/44 C081-20/54 C081-26/10 C12n-11/04

08.10.75 as 120816 (52TM)

At least one water soluble monomer is mixed with 1 or more organic solvent(s) and water. The ratio of the monomer to the

solvent is 60:40-5:90 by vol. volume, and that of the monomer to water is 90:10-30:70. In the resulting mixt. is dissolved or dispersed less than 10 wt.% of enzyme (e.g. urease, alcohol dehydrogenase, etc. or organism or compsn. consisting of the enzyme or organism and absorbent (e.g. gelatin, starch, etc.). The resulting soln. or dispersion is treated under polymerisation, conditions such as irradiation, of light or ionising radiation at below -20 deg.C to yield the fixed polymer contg. the enzyme or organism or adsorbent.

The monomer is acrylamide, methylolacrylamide, acetoneacrylamide, hydroxypropylacrylamide, etc. The solvent is malonic acid, itaconic acid, succinic acid, glycerol, glycerol monoacetate, triethanolamine, etc. The prods. are utilised in the food and pharmaceutical industries. (J52047982) (3pp)

YOSH/ D16 15525 Y/00 = J8 1042-270
Blood coagulation Factor three extrn. - from Yellow Staphylococcus by multiplying and extrn.

YOSHIDA K 04.07.75-JP-083224
B04 (03.10.81) *J52007-416 A61k-35/74 + C07g-17 C12p-01/04 C12r-01/*

04.07.75 as 083224 (140KB)

Yellow Staphylococcus is multiplied at a pH 7.2-9.5 and polysaccharides are then extracted from the surface layer of the microbial cells and the culture supernatant at this pH range.

In an example, Yellow Staphylococcus was cultivated in a culture (0.3 M tris-HCl buffer soln, pH 8.4 and brain heart infusion culture dialysis external liquid) and centrifuged for 20 minutes. The supernatant was concentrated, and the ppte. was floated in a 0.03 M tris-HCl buffer soln., ultrasonically oscillated and centrifuged DNase and RNase were acted on the combined supernatant in a warm bath. Chloroform was added followed by shaking and centrifuging to separate into 3 layers.

Chloroform was added to the upper layer and the same procedure as above was repeated until the white ppte. in the middle layer disappears, thereby removing the protein. The upper layer was subjected to dialysis with a 0.03 M tris-HCl buffer soln. (pH 8.4). To the content were added 3/1000 vol. of satd. sodium acetate and then 5 times vol. of ethanol followed by stirring. The mixt. was stood for 24 hrs. The white ppte was collected by centrifuging, and acetone added, and the above procedures after the addn. of acetone were repeated followed by centrifuging. The ppte. was dried to obtain the desired substance. (J52007416) (3pp)

IORG D16 80622 Y/45 = J8 1042-271
Prodn. of antitumour substance - by culturing Bifido-bacterium strain and separating cell wall material fraction

MORINAGA MILK KK 27.03.76-JP-033107
B04 (03.10.81) *J52117-494 C07g-11 + A61k-35/74 C12p-01/04 C12r-01/*

27.03.76 as 033107 (52NS)

Antitumour substance is prepd. anaerobically culturing a strain of Bifidobacterium. The biomass is dispersed in water, centrifugally fragmented to recover the fraction of insol. cell wall. After dialysing the dispersion of the latter in water, the resulting dialysed soln. is freeze-dried after sterilisation.

The antitumour action is approx. the same as that of commercially available mitomycin, but less toxic than mitomycin. (J52117494) (6pp)

ITO * D16 80955 D/44 *J8 1042-272
Orange peel fermentation - by treating with acid or alkali then fermenting with microorganism to produce methane (J5 30.7.77)

MITSUBISHI HEAVY IND KK 26.01.76-JP-006631
E17 (03.10.81) C12p-05/02
26.01.76 as 006631 (22BZ)

Outer and inner cover of orange are treated with acid or alkaline, and the resultant is subjected to methane fermentation with the aid of microorganism, whereby methane gas can be produced from the cover of orange. (J52090651) (5pp)

TOKU D16 64162 Y/36 = J8 1042-273
L-Tartaric acid prepn. from Nocardia tartarican ES3-T - by reacting enzymic prod. with cis-epoxysuccinic acid (deriv.)

TOKUYAMA SODA KK 28.01.76-JP-006608
E17 (D13) (03.10.81) *J52090-890 + C12p-07/42 C12r-01/*
28.01.76 as 006608 (5DH)

The method comprises reacting the enzymic prod (e.g. cultured living bacterial body, mashed bacterial body, the extract of bacterial body, crude enzyme, refined enzyme, etc.) of Nocardia tartaricans ES3-T with cis-epoxysuccinic acid (derivs.) in aq. medium at 20-60 deg.C at pH 6-10 in the presence or absence of a surfactant (e.g. nonionic, anionic or cationic surfactant) and recovering formed L-tartaric acid from the reaction prod.

L-Tartaric acid which is important is a food additive and a material for chemical industry, can be industrially prepd. from

inexpensive petrochemical prod. of maleic acid. (J52090690) (12pp)

AJIN D16 75202 Y/42 = J8 1042-274
Mono-hydroxy-carboxylic acid prepn. - by culture of genus Bacillus in medium contg. 1,2- or (1,3)-propane diol

AJINOMOTO KK 08.03.76-JP-024901
E17 (03.10.81) *J52108-088 + C12p-07/42 C12r-01/07
08.03.76 as 024901 (5BZ)

Method comprises culturing bacteria of genus Bacillus in a medium contg. 1,2-propanediol or 1,3-propanediol as the major carbon source; and recovering formed lactic acid or beta-hydroxypropionic acid. Monohydroxycarboxylic acids such as lactic acid and beta-hydroxypropionic acid can be prepd. in high yield.

Examples of bacteria are brevis (FERM-P 3456) and B. coagulans (FERM-P 3455). Propanediol in the culture medium is used at 1-10%. Culture is at 40-55 deg.C and pH 6-8 for 1-2 days by submerged culture. (J52108088) (2pp)

MITK D16 64164 Y/36 = J8 1042-276
Coenzyme Q7 prepd. from yeast of genus Hansenula - by culturing in medium contg. methanol as carbon source

MITSUI TOATSU CHEM INC 22.01.76-JP-005407
B05 (03.10.81) *J52090-692 + C12p-07/66 C12r-01/78
22.01.76 as 005407 (108MR)

The method can give the coenzyme Q7 cheaply and in large scale. Examples of yeasts used are Hansenula Polymorpha ATCC 26012, Hansenula henricii CBS 5765. The medium contains as carbon source methanol, as nitrogen source urea, ammonium sulphate or ammonia water and inorganic salts.

If desired, the medium also contains amino acid, nucleotic acid, vitamin, yeast extract and corn steep liquor. Cultivation is conducted at pH 2-8, 25-45 deg.C for 20-70 hrs., under aerobic conditions. After cultivation the cells are sepd. by centrifugation or filtration. Isolation of the prod. from the cells is described. (J52090692) (2pp)

KAYA D16 84043 W/51 = J8 1042-277
Isopropyl-dioxo-diaza-bicyclononane prepn. - by culturing Streptomyces tanashiensis var. K-73 strain

KAYAKU KOSEIBUSHITS 21.02.74-JP-020877
B02 (03.10.81) *J50116-689 + A61k-31/49 C12p-17/18 C12r-01/46
21.02.74 as 020877 (TM)

3-Isopropyl-2,5-dioxo-1, 4-diaza bicyclo(4,3,9)nonane (I) was produced by Streptomyces tanashiensis var. K73.

In an example, the title strain was aerobically cultured at 30 deg. for 40 hr. on a medium (pH 7.0) contg. starch 3, peptone 1, meat ext. 1, NaCl 0.5, and CaCO₃ 0.2%. Active substance in the culture filtrate (10 l) was adsorbed on Amberlite XAD-II, eluted with 70% acetone, and concd. vol. of CHCl₃ at pH 7.5.

The CHCl₃ phase was extd. with 0.5 vol. acid water and lyophilised yielding 9 g orange yellow complex. The complex (2 g) was dissolved in 100 ml water and extd. 3 times with 100 ml CHCl₃ at pH 5.9-5.5. The extd. was dried with Na₂SO₄ and evapd. the solvent yielding 200 mg red oil substances. I was recrystd. from BuOH yielding 17.9 mg white needle-like crystals. (J5011689) (6pp)

KYOW D16 87035 X/20 = J8 1042-278
Antibiotic aminoglycosides prodn. - in increased yields by addn. of phytic acid or phytin material to culture medium

KYOWA HAKKO KOGYO K 28.09.74-JP-111931
B04 (03.10.81) *J51038-490 + C12p-19/02 C12r-01/29
28.09.74 as 111931 (JB)

In the prodn. of an antibiotic aminoglycoside by cultivating a microorganism in a culture medium, phytic acid, phytin (including alkali metal salts, alkaline earth metal salts, heavy metal salts and ammonium salt of phytic acid singly or in combination) or a substance contg. them is added to the culture medium to give increased yields. (J51038490) (4pp)

DAIN. D16 74592 Y/42 = J8 1042-279
Antibiotics (N)-methylhygromycin B and hygromycin B prepn. - using Streptomyces aquacanus (FERM-P 2495)

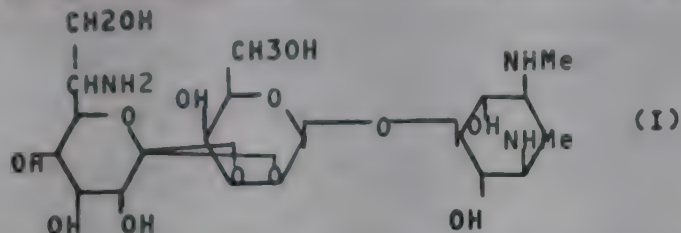
DAINIHO SEIYAKU KK 08.03.74-JP-027336
B02 (03.10.81) *J50121-487 + A61k-31/71 C07h-15/22 C12p-19/48 C12r-01/46
08.03.74 as 027336 (38BZ)

A novel antibiotic, N-methylhygromycin B (I) and/or hygromycin B (II) of formula is produced by streptomyces aquacanus (FERM-P 2495) or mutants. The microbe was aerobically cultured on 50 l medium (pH 7) contg. sol. starch 3, soybean powder 1, glucose 2, meat ext. 0.5, peptone 0.5, NaCl 0.3, CaCO₃ 0.3, and soybean oil 0.2% plus silicon 30 ml at 30 deg.C for 94 hrs. Antibiotics in the culture filtrate were adsorbed in Amberlite IRC-50 (NH₄+) and eluted with 2% NH₄OH.

The antibiotic was recovered and purified using column

chromatography.

(I) and (II) were effective against Gram positive and negative bacteria, moulds and protozoa. LD50 against mice were 11.1 and 7.0 mg/kg by i.p. injection for (I) and (II) respectively. (J50121487) (15pp)



MITO D16 91102 Y/51 = J8 1042-353
Orange peel treatment before methane-forming fermentation - comprises sepg. and recovering peel oil and converting residue to lower molecular material

MITSUBISHI HEAVY IND KK 07.05.76-JP-051331

E17 H09 + P43 (D13) (03.10.81) *J52134-606 + B09b-03 C02f-03/28

07.05.76 as 051331 (170JB)

In the prodn. of methane from waste material mainly composed of orange peel by fermentation, first peel oil is sepd. and recovered, and then the residue is converted to lower molecular material by chemical or biological method, and treated by methane fermentation.

Peel oil and methane gas are recovered effectively from orange peel. The peel oil (water insoluble alpha-limarene) arrests the growth of microorganisms and must therefore be removed. (J52134606) (5pp)

SUMO D16 76529 Y/43 = J8 1042-579
Anti-ulcer protease-inhibitor - prepd. by culturing *Streptomyces* SC-4708

SUMITOMO CHEMICAL KK 09.03.76-JP-025736

B05 (06.10.81) *J52108-925 A61k-37/02 C07c-103/52 + C12p-13/02 C12r-01/46

09.03.76 as 025736 (69BZ)

Novel protease-inhibitor S-346 is of formula

(CH₃)₂-CH-(CO-NH-CHA)₃-CH₂OH- CH₂-CO-NH-CH-CH₃-CO-NH-CHA-CH.OH-CH₂-COOH (I)

(where A is -CH₂-CH(CH₃)₂). (I) inhibits pepsin activity. (I) has mol. wt. 713; analysis is 40.37% C, 9.4% H and 9.82% N; m.pt. is not definite (i.e. discoloration occurs at 200 deg. C and decompsn. at 214-218 deg. C- and specific rotation is 71.95, (in 0.492% MeOH).

(I) has specific IR and nmr spectra. Cpd. is soluble in MeOH, EtOH and BuOH; and difficultly soluble in C₆H₆, Et₂O, petrol, CHCl₃, CCl₄, C₆H₁₄, EtOAc and water. (I) is acid and positive to Leiden-Smith and KMnO₄ reactions; negative to anhydrin. (J52108925) (8pp)

SUMO D16 76526 Y/43 = J8 1042-580
Protease-inhibiting substance S-114 - produced from strain of fungi of *Streptomyces* genus

SUMITOMO CHEMICAL KK 10.03.76-JP-026334

B05 C03 (06.10.81) *J52108-921 C07c-103/52 + C12p-21/02 C12r-01/46

10.03.76 as 026334 (69NS)

Novel protease-inhibiting substance S-114 is of formula YCH₂-CO-X-NH-CH(CH₂Y)-CH(OH)-CH₂-CO-NH-CH(CH₃)-CO-NH-CH(CH₂Y)-CH(OH)-CH₂-COOH (I) (where X is -NH-CHY-CO-NH-CH(CH₂Y)-CO- and/or -NH-CH(CH₂Y)-CO-NH-CHY-CO- and Y is -CH(CH₃)₂).

S-114 has characteristics that inhibit strongly decomposition of protein by acidic protease of the origin from animals and microbes and partic. pepsin activity-inhibiting power and is used for prophylaxis or treatment of gastric ulcer and duodenal ulcer. S-114 substance may be produced by means of strain of fungi of *Streptomyces* genus having S-114 producing power. (J52108921) (8pp)

AJIN D16 10074 Y/06 = J8 1042-595
Prodn. of N: acetyl-S: alkylmercaptocysteine - used in prodn. of optically active S: alkylmercapto-cysteine with an acylase

AJINOMOTO KK 13.06.75-JP-071687

E16 (06.10.81) *J51149-224 C07c-148 C07c-149/24

13.06.75 as 071687 (16AS)

O-Alkylserine or O-alkyl-N-acetylserine is reacted with an equimolar amt. of thio-acid in the presence of a two-molar amt. of acetic anhydride. The resulting 2-alkyl-4- (5-acylmercaptomethyl)-5-oxazolone is hydrolysed with an acid or a base. Basic hydrolysis gives N-acetyl-cysteine which is then treated with a combination of a dialkyldisulphide with H₂O₂ to obtain N-acetyl-S-alkyl-mercaptocysteine. For basic hydrolysis, any base other than ammonia may be used, e.g., NaOH or K₂CO₃ is used conveniently. Alternatively, acidic hydrolysis gives cysteine. In this case, the cysteine is converted into S-

alkylmercaptocysteine and subsequently, the latter is subjected to N-acetylation.

The prod. is synthesised by a simple and convenient process. The prod. is an excellent substrate for the enzymatic optical resolution, because it does not inhibit the enzymes used such as acylase. (J51149224) (4pp)

MATS/ D16 55083 B/30 = J8 1042-600
Neosporin antibiotics - prepd. by culturing *Cercosporina kikuchi*

MATSUEDA K 15.11.77-JP-137147

B05 (06.10.81) *J54073-746 A61k-35/70 C12r-01/64 + C07d-

321/10 C12p-17/02

15.11.77 as 137147 (69NS)

New neosporin antibiotics have structure corresp. to 1,12-bis(2-hydroxypropyl)-2, 11-dimethoxy-6,7-methylenedioxy- 5,8 -dihydroxy-terylene-3,10-quinone. They are prepd. by culturing *Cercosporina kikuchi* fungi (No. 4267) of *Cercospora* genus.

In an example, potatoe-glucose agar-agar medium was used as culture medium. Seed fungi was inoculated and subjected to stationary culture at 27 deg. C for 7-10 days. Fungi body and culture medium were coloured into red brown to red purple with produced Neosporin. (J54073746) (4pp)

MARL D16 47244 Y/27 = J8 1042-903

Package for transporting and storing anaerobic cultures - including a reducing gas generator and catalyst for reaction of oxygen with the reducing gas

MARION LABS INC 22.12.75-US-643258

+ Q34 (07.10.81) *DE2635-679 C12m-01

07.09.76 as 107185 (1251JB)

The package consists of a bag made of a flexible foil material of low gas permeability, at least 1 reducing gas and opt. also CO₂; and also a container for the culture. The bag also includes a catalyst which catalyses reaction O₂ with the reducing gas generated by arrangement. Pref. a colour indicator, esp. methylene blue or resazurin, is present to indicate the presence or absence of O₂ in the bag.

The package is useful for keeping anaerobic cultures alive during transport to the laboratory for identification. It is inexpensive, disposable and can be sterilised with ethylene oxide. (J52079075) (10pp)

AJIN D16 26874 B/14 = J8 1042-905

Fermentative prodn. of L-lactate dehydrogenase - by culturing suitable *Bacillus* strains under aerobic conditions

AJINOMOTO KK 26.07.77-JP-089400

B04 (07.10.81) *J54026-395 + C12n-09/04 C12r-01/07

26.07.77 as 089400 (16MR)

Prodn. of L-lactate dehydrogenase comprises cultivating a suitable strain belonging to the Genus *Bacillus* and recovering the accumulated enzyme.

Previously the source of L-lactate dehydrogenase has been limited to animal tissues. The fermentative process for producing the same facilitates the prodn. at a lower price.

Suitable microorganisms are *Bacillus subtilis* Ferm-P 4092, *B. blevis* ATCC 8185 and *B. cereus* Ferm-P4093. The cultivation is carried out at 25 to 40 deg. C for 1-3 days under aerobic conditions. The pH of the medium is kept at 6.0-8.5 during the cultivation. (J54026395) (2pp)

AJIN D16 32370 B/17 = J8 1042-906

Proteolytic enzyme prepn. - culturing yellow koji mould in nutritive medium contg. vegetable oil and sucrose fatty acid ester

AJINOMOTO KK 22.08.77-JP-100246

(07.10.81) *J54035-283 + C12n-09/62 C12r-01/66

22.08.77 as 100246 (5MR)

Proteolytic enzyme, partic. endopeptidase, is prepd. by culturing yellow 'koji' mould (e.g. *Aspergillus oryzae*, *A. soyae*, etc.). Process is improved by combining the vegetable oil and the sucrose fatty acid ester which contain 14-20C fatty acid as the structuring unit, in nutritive medium.

Endopeptidase obtd. shows an activity 2-6 x as high as the peptidase obtd. by conventional methods. Thus proteins can be hydrolysed almost completely. Fine global mycellium (pellet form) of 50-500 microns can be obtd. (J54035283) (10pp)

TOYF D16 71596 A/40 = J8 1042-908

Fixing enzymes in hydrophilic polyurethane - by reacting urethane prepolymer, obtd. from hydrophilic poly:ol and isocyanate, with aq. enzyme soln.

TOYO RUBBER IND KK 04.02.77-JP-011338

A97 B04 (D17) (07.10.81) *J53099-384 + C08g-18/14 C12n-11/04

04.02.77 as 011338 (5TM)

Method comprises (a) reacting (1) a hydrophilic polyol component which consists of 1 or more ethylene oxide-propylene oxide copolymer polyetherpolyol (ethylene oxide content 50-100 pref. 70-100%) having mol. wt. 500-1000 (2) a

glycol (mol. wt. 200-15000), low molecular polyol or amine as the initiator with (2) an isocyanate cpd. and (b) reacting the obtd. urethane prepolymer having terminal isocyanate gps. with an aq. enzyme soln. at below 50 deg.C. with stirring for inclusion-fixing of the enzyme in the reticular structure of the hydrophilic polyurethane.

The enzymes are fixed under moderate conditions with little loss in enzymic activity. Prods. are free of catalyst, monomer, etc. and the fixed enzyme is non-toxic. The fixed enzyme can be used in foods.

Enzymes such as invertase, glucoseoxidase, catalase, amylase, urease, glucoseisomerase, etc. can be fixed. Amt. of an enzyme soln. used is 0.1-5 (0.8-2) times that on urethane prepolymer, and 0.1 (0.0-0.05) g. of enzyme can be fixed on 1 g. of urethane prepolymer. (J53099384) (4pp)

NISB D16 77261 A/43 = J8 1042-909
2-Hydroxy-beta-ionone prodn. for improving tobacco taste and flavour - by microbial conversion of beta-ionone

JAPAN TOBACCO & SALT PUB 28.02.77-JP-020345

E15 (D18) (07.10.81) *J53107-482 + C12p-07/26 C12r-01/66

28.02.77 as 020345 (5DH)

Process comprises (a) culturing a microorganism of genus *Aspergillus*, *Rhizopus* or *Penicillium*; (b) adding 4-(2,6,6-trimethyl-1-cyclohexene-1-yl)-3-butene-2-one(beta-ionone) (II) to the culture liq.; (c) culturing the mixt. and sepg. and refining the formed 4-(5-hydroxy-2,6,6-trimethyl-1-cyclohexene-1-yl)-3-butene-2-one(2-hydroxy-beta-ionone) (I) from the cultured liq. The microbial body sepd. from the cultured liq. can be re-used repeatedly for the conversion.

(I) is an optically active cpd. with a sweet fragrance. (J53107482) (7pp)

SHOW. D16 75352 A/42 = J8 1042-910
Citric acid prepn. from high olefin(s) - by culturing *Candida*-type yeasts aerobically in slightly acidic conditions

SHOWA SEKIYU KK 25.02.77-JP-019285

E17 H04 (07.10.81) *J53104-793 + C12p-07/48 C12r-01/72

25.02.77 as 019285 (5NS)

Method comprises culturing olefin-utilising yeast aerobically in a culture medium contg. olefins as the carbon source, accumulating citric acid in the culture medium and recovering it. 8-40C olefins can be used, instead of the usual 12-18C n-paraffins.

The olefins are added at 1-20 (pref. 5-15) wt.% in the culture medium, *Candida tropicalis*, *C. intermedia* and *C. brumptii* are suitable yeasts. The culture is carried out at 25-40 deg.C., (30 deg.C) at pH 3-10 (pref. 4-6) for 50-150 (pref. 100) hours. As other nutrients biotin and thiamine can also be added singly or together. (J53104793) (4pp)

SHOW. D16 75353 A/42 = J8 1042-911
Fermentative prepn. of citric acid from crude olefin - by aerobically culturing with the yeast, *Candida tropicalis*, in culture medium contg. olefin mixt.

SHOWA SEKIYU KK 25.02.77-JP-019286

E17 H04 (07.10.81) *J53104-794 + C12p-07/48 C12r-01/74

25.02.77 as 019286 (5NS)

Method comprises culturing the yeast, *Candida tropicalis* in the culture medium contg. the crude olefin mixt. as the C source aerobically to accumulate citric acid in the culture medium and recovering citric acid. The crude olefin mixt. is the heat-decomposed prod. contg. 8-40C crude olefins as the major components, which is obtd. by heat-decomposing 20-50C wax at 500-650 deg.C with the liquid-space velocity 10 LHSV under the molar proportion of water:wax is 5-10:1.

Pref. the olefin mixt. is combined in an amt. of 1-20 (5-15) w/w% in the culture medium. As the micro-nutrient biotin and/or thiamine are applied. Biotin and thiamine are used so that their total amt. is less than 1000 (50-100) micrograms/l. The culture is carried out aerobically at 25-40 (pref. 30) deg.C., at pH 3-10 (4-6) for 50-150 (80-100) hours. The accumulated citric acid can be recovered as usual by known methods. (J53104794) (3pp)

KANF D16 32465 A/18 = J8 1042-912
Coenzyme/Q prepn. by aerobic yeast fermentation - with high dissolved oxygen concn. and low specific growth rate

KANEGAFUCHI KAGAKU 26.10.76-JP-129106

B05 (07.10.81) *DE2747-510 C12r-01/64 + C12p-07/66

26.10.76 as 129106 (200DH)

Coenzyme Q is prepd. by aerobically cultivating a yeast having a max. specific growth rate of at least 0.15 hours⁻¹ under optimum growth conditions, in a nutrient medium allowing the yeasts to grow. The concn. of the dissolved O₂ in culture liquor is kept at at least 2 ppm. The average specific growth rate during the whole cultivation period is controlled at max. 0.1 hr⁻¹. The coenzyme Q is then separated from the yeast cells obtd. by standard processes, e.g. by yeast cell saponification and solvent

Prod. is esp. the coenzyme Q6-10 homologue. Coenzyme Q is a quinone deriv. playing an important part in terminal electron system of organisms. The structure of coenzyme Q is that of 2,8-dimethoxy-5-Me-1,4-benzoquinone with an isoprenoid side chain in the 6-position.

Yeast cells contg. large quantities of coenzyme Q are obtd. in high concns. under high dissolved O₂ conditions. (J53052690) (7pp)

KANF D16 54424 A/30 = J8 1042-914
D-(-)-N-carbamoyl-2-(subst. phenyl) glycine cpds. prodn. - by treating 5-(subst. phenyl) hydantoin with culture broth of microorganisms to stereo specifically split the hydantoin ring

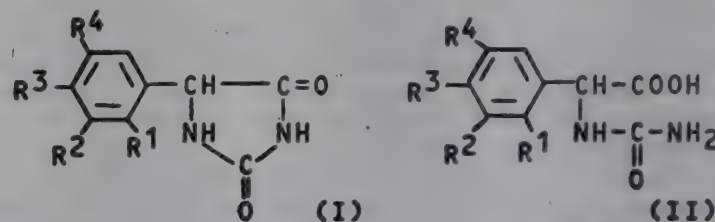
KANEGAFUCHI CHEM KK 03.12.76-JP-145748

B05 (07.10.81) *J53069-884 + C12p-13/04 C12r-01/*

03.12.76 as 145748 (16JB)

A 5-(subst. phenyl)hydantoin (I) is treated with a cultured broth of microorganisms capable of splitting the hydrantoin ring stereospecifically or an enzymatic substance obtd. from it to provide D-(-)-N-carbamoyl-2-(subst. phenyl) glycine (II). In (II) R₁, R₂, R₃ and R₄ are each H, halogen, OH, lower alkoxy or methyl, provided that R₃ is not H when all of R₁, R₂ and R₄ are H.

The microorganism may be of the genera *Achromobacter*, *Aerobacter*, *Aeromonas*, *Agrobacterium*, *Alcaligenes*, *Arthrobacter*, *Bacillus*, *Brevibacterium*, *Corynebacterium*, *Enterobacter*, *Erwinia*, *Escherichia*, *Klebsiella*, *Microbacterium*, *Micrococcus*, *Protaminobacter*, *Proteus*, *Pseudomonas*, *Sarcina*, *Serratia*, *Xanthomonas*, *Actinomyces*, *Actinoplanes*, *Mycobacterium*, *Nocardia*, *Streptomyces*, *Aspergillus*, *Paecilomyces*, *Penicillium*, *Candida*, *Rhodotorula*, *Torulopsis* and *Pichia*. (J53069884) (11pp)



ORIY D16 06833 B/04 = J8 1042-915
NADP prepn. from NAD and ATP using fixed bacterial body - in presence of active dry yeast to convert adenosine di:phosphate produced bale to ATP

ORIENTAL YEAST KK 14.05.77-JP-054859

B02 (07.10.81) *J53142-596 + C12p-19/36 C12r-01/13

14.05.77 as 054859 (5RH)

The reaction is effected in the presence of active dry yeast, converting formed ADP to ATP. The ATP is reused in the reaction.

Dry active yeast body and the bacterial body having NAD-kinase activity are included in suitable gel and the substrate soln. is passed through the column with the fixed enzyme at 30-55 deg.C. at pH 6.0-9.0.

NADP which is a useful co-enzyme, can be easily prepd. inexpensively. (J53142596) (3pp)

ORIY D16 06834 B/04 = J8 1042-916
Enzymatic NADP prepn. from NAD and ATP - by reaction in presence of dry active yeast which forms adenine and/or mono:phosphate and sugar

ORIENTAL YEAST KK 14.05.77-JP-054860

B02 (07.10.81) *J53142-597 + C12p-19/36 C12p-39 C12r-01/13

14.05.77 as 054860 (5DH)

The reaction is effected in the presence of dry active yeast which forms ATP from adenine and/or adenosine monophosphate (AMP) and sugar. Thus formed ATP is used for synthesising NADP.

Bacterial body having NAD-kinase activity and dry active yeast body are fixed in the gel such as acrylamide, agar, etc. Thus prepd. fixed enzyme is crushed and is packed in column. The substrate soln. contg. NAD 2-100 micro mol./ml. adenine 1-100 micro mol./ml. AMP 1-100 micro mol./ml. and sugar 20-500 micro mol./ml. is passed through the column at 30-55 deg.C at pH 6.0-9.0. From the reaction mixt. NADP can be sepd. using ion exchange resin and unreacted NAD, ATP and ADP are recovered and reused.

NADP, which is a useful coenzyme, can be easily prepd. inexpensively using inexpensive adenine or AMP. (J53142597) (3pp)

TAJI/ D16 44949 B/24 = J8 1042-917
Erythropoietin hormone prepn. - by culturing human renal cancer cells in nutrient medium

TAJIMA T 05.10.77-JP-119808

B04 (07.10.81) *J54055-790 + C12p-21 C12r-01/91

05.10.77 as 119808 (16MR)

Prodn. of erythropoietin comprises culturing human renal cancer cells in a nutrient medium and recovering the accumulated erythropoietin from the cultured broth.

Erythropoietin is a hormone excreted by kidney and useful for treatment of anaemia, partic. caused by renal insufficiency. The invention provides a process for the industrial prodn. of erythropoietin. (J54055790) (3pp)

SAPB **D16** **44947 A/25 = J8 1042-918**
Glutathione prodn. from yeasts - by treating with beta-glucanase
SAPPORO BREWERIES 25.10.76-JP-127285
B05 E16 (07.10.81) *J53052-688 + C12p-21/02 C12r-01/84
25.10.76 as 127285 (43JB)

25.10.76 as 127285 (43JB)
The beta-glucanase is e.g. beta-1,3- and/or beta-1,6- glucanase, pref. endo type ones. Extn. of glutathione is effected with hot water or mineral or organic acid, or a mixt. of organic solvent and acid. Treatment with beta-glucanase is effected for a short period at 10-50 deg.C at pH of 3-7, pref. followed by irradiation with ultrasonic wave, so as to destroy the glucan layer of cell walls.

The process extracts glutathione at a yield twice as large as the conventional extrn. processes. (J53052688) (4pp)

UPJO D16 33075 Y/19 = J8 1042-919
(9)-Alpha-hydroxy-androstenedion fermentation prodn. - from
(17)-alkyl-steroids e.g. sitosterol using new Mycobacterium
fortuitum mutant (NL 26.4.77)

UPJOHN CO 24.10.75-US-625653
B01 (07.10.81) *DE2647-895 C12p-33/06 C12r-01/32
23.10.76 as 126825 (280JB)

In the prodn. of 9alpha-hydroxyandrostenedione (I), *Mycobacterium fortuitum* NRRL B-8119 is cultivated under aerobic conditions in an aq. nutrient medium in the presence of a steroid with 2-10 C in the 17-alkyl side-chain. Pref. steroids are sitosterol, cholesterol, stigmasterol and campesterol. *Mycobacterium fortuitum* NRRL B-8119 is claimed per se as a new laboratory mutant.

In an alternative new process for the prodn. of (I), a microorganism capable of selective degradation of steroids with a 2-18C 17-alkyl side-chain and of forming or accumulating (I) in the fermentation broth, selected from *Arthrobacter*, *Bacillus*, *Brevibacterium*, *Corynebacterium*, *Microbacterium*, *Nocardia*, *Protaminobacter*, *Serratia* and *Streptomyces*, is cultivated under aerobic conditions in an aq. nutrient medium in the presence of a steroid with a 2-10C 17-alkyl side-chain.

9alpha-hydroxy cpds. of the androstane series are useful as antiandrogens, antiestrogens and antifertility agents. They are also useful as intermediates for other steroids, e.g. 9(11)-dehydro cpds. which can be converted into 9alpha-halo-11beta-hydroxy cpds.

An example in the specification describes the prodn. of *Mycobacterium fortuitum* NRRL B-8110 by mutation of *M. fortuitum* ATCC 6842, and the conversion of sitosterol into (I) by the mutant. (J52054093) (7pp)

BECI **D16** **77618 Y/44 = J8 1042-920**
Kinetic enzymatic assay using oxygen analysers - with salts
added to reagent to reduce oxygen solubility and increase
sensitivity

BECKMAN INSTRUMENTS INC 01.07.76-US-701920
B04 J04 S03 (S05) (07.10.81) *BE-856-291 C12q-01/54
01.07.77 as 077991 (1251DH)

An enzymatic reagent consisting of a buffer soln. and an enzyme for use in kinetic measurement of a substrate concn. by means of an O₂ analyser, now additionally contains at least 1 salt able to reduce the solubility of O₂ in the reagent. The O₂-solubility is reduced by at least 30% compared to its solubility in water and thus the size of the output signal (which defines the substrate concn.) is increased.

Specifically for assay of cholesterol; glucose and uric acid. Improved signal-to-noise ratio (sensitivity) e.g. adding 0.1M phosphate to the reagent for cholesterol assay in a Sternberg-type analyser, increases the size of the initial signal by 10 times. (J53033688) (4pp)

IRKU ★ D16 81326 D/44 ★ SU -802-361
Selective culturing of entomopathogenic fungi - includes growing
infected insects in presence of fungal conidia contg. nutrient
IRKUTSK ZHDANOV UNIV 28.05.79-SU-774107
C03 (15.02.81) C12k-01

28.05.79 as 774107 (70VE)
Selective breeding of entomopathogenic fungi is performed by transferring conidia into separate nutrient surroundings. The selection is accelerated and the most virulent strains are obtd. by placing insects into the conidia layer on the nutrient medium; growing the infected insects; transferring those who perished after 3-7 days onto a filter paper placed in a moist chamber; and removing the conidia from the resulting mycelium into separate

PLAN = ★ D16 81327 D/44 ★ SU-802-362
Growing spores of insecticidal fungus Entomophthora
thaxteriana - in aq. medium contg. glucose and acid hydrolysate
of mycelium of Aspergillus niger
PLANTS PROTECTRES 03.05.79-SU-761265

PLANTS PROTECT RES
C03 (15.02.81) C12k-01/06

03.05.79 as 761265 (70VE)
Nutrient medium for the prodn. of quiescent spores of the insecticidal fungus *Entomophthora thaxteriana* by deep cultivation contains (I) glucose and (II) water. The spore yield is increased by addn. of (III) an acid hydrolysate of the mycelium of *Aspergillus niger*. The compsn. contains (in wt.%) (I) 1.5-2.0, (III) dry powder 15.0-20.0, the balance is (II). The prepn. is used for plants protection.

The hydrolysate (III) is a by-prod. of the citric acid prodn. It contains residual citric acid, proteins, vitamins B, enzymes, and trace elements (Ca, K, P, Zn, Mg, Fe, Cu, Al and Co). The max. spore concn. is 5.8×10^5 per ml, i.e. 200 times more than in the known medium. Bul. 5/7.2.81. (2pp)

NATR **D16** **64633 C/37 #US 4294-037**
Vesicular-arbuscular mycorrhizal fungi prodn. - by cultivation on
plant roots using nutrient film culture techniques

NATIONAL RES DEV CORP (MOSS) 14.02.79-GB-005246
(13.02.80-US-121171)

C03 P13 (13.10.81) *EP--15-103 A01g-31
13.02.80 as 121171 (393PW)

Prod. of vesicular-arbuscular (VA) mycorrhizal fungi comprises growing the fungus or plant roots in nutrient film culture. Pref. the fungus is of the genera *Glomus*, *Gigaspora* or *Acaulospora*, esp. *Glomus mosseae*, *Glomus clerus* or *Glomus claudonius*.

Pref. plants are clover, lucerne, bean, maize, cucumber, tomato or lettuce. Pref. concns. of N, P, Ca and K in the nutrient are 0.5-10, 0.113, 8-40 and 10-20 ppm, respectively.

The resulting infected plant roots are useful in producing a mycorrhizal inoculum, esp. for incorporation into plant growth medium to enhance uptake of nutrients by plants. (8pp)

SAXZ- ★ D16 81543 D/44 ★ US 4294-664
Latent heat recirculating system from condenser - esp. for distn.
of wort or algae to yield ethanol

SAX ZYZX LTD 16.07.80-US-169441
J01 (13.10.81) B01d-03/02

16.07.80 as 169441 (295MR)
A liq. is heated in a boiler to produce a vapour which is condensed in a heat exchanger while a chilling liq., pref. water, is recirculated through the heat exchanger to recover the latent heat. The chilled water is then pumped through a second heat exchanger cooled by a recirculated refrigerating liq.

The refrigerating loop includes a heat exchanger in contact with the feed liq. supplied to the boiler to preheat it with energy recovered from the vapour condenser. The performance of the energy recovery system is controlled by adjusting the refrigeration loop esp. its pump and expansion valve.

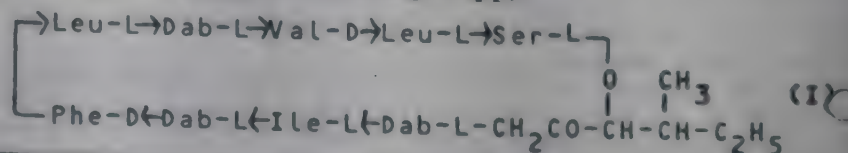
The appts. is associated with a distn. plant for recovering ethanol from wort. Alternatively the feed to the boiler may be algae or other biomass. (13pp)

AJIN D16 85087 B/47 = US 4294-754
Polypeptide antibiotic pelmycin A - prepd. by fermentation of
Bacillus circulans AJ3902 under aerobic conditions

04.04.79 as 027029 (393TM)

Novel purified ring peptide has the empirical formula, N- α -(3-hydroxy-4-methyl-1-oxo hexyl)-L- α , diamino butyryl-L-isoleucyl-L- α , gamma diaminobutyryl-D-phenyl alanyl-L-leucyl-L- α , gamma diamino butyryl-D-valyl-L-leucyl-L-serine (9-1)-lactone. The peptide has the structural formula (I) (where Dab is 2,4-diamino butyric acid).

(I) has high and broad antimicrobial activity to Gram-positive and -negative bacteria and fungi. (7pp)



DI- D16 42821 B/23 = US 4294-817
 surface immunoassay with two different test surfaces - useful
 th samples contg. interfering materials esp. in rubella assay
 INT DIAGNOSTIC TECH 18.09.78-US-943314 (25.11.77-US-
 854613)
 A96 B04 J04 + P31 (S03 S05) (13.10.81) *GB2008-747 G01n-33/58
 + G01n-01/28 G01n-21/25
 .09.78 as 943314 (393TM)

immunofluorescence method of testing for the presence of
 analyte where the sample may contain an unknown amt. of
 interfering material, is described. This involves (1) preparing a
 surface having bound to it an antigen for the analyte, (2)
 preparing a 2nd surface which binds a broad spectrum of protein
 materials including the interfering materials but which does not
 and significant amt. of analyte and (3) immunoassaying an
 unknown serum sample.

Assay comprises (a) immersing 1st surface in an aliquot of the
 serum, (b) immersing the 1st surface in an aliquot of fluorescent
 labelled material for binding to antibodies in the sample, (c)
 immersing the 2nd surface in an aliquot of the unknown serum,
 (d) immersing the 2nd surface in an aliquot of fluorescent labelled
 material for binding to antibodies in the serum sample, and (e)
 measuring the difference in the amt. of labelled material in the
 1st and 2nd surfaces.

Method is useful in detecting a wide variety of antibodies of
 immunoglobulin G and immunoglobulin M classes. (7pp)

MERI ★ D16 81606 D/44 ★ US 4294-846
 lactone fermentation prod. - with hypocholesterolaemic and
 antifungal activity

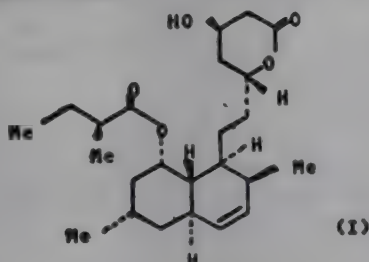
MERCK & CO INC 28.05.80-US-154157 (21.09.79-US-077807)

B03 (13.10.81) A61k-31/36 C07d-309/30

.05.80 as 154157 (367AT)

ne 7-(2,6-dimethyl-8-(2-methyl -butyryloxy)-1,2,5,6,7,8,9,10 -
 tetrahydro-1-naphthyl) -34,-dihydroxy-heptanoic acid delta-
 lactone isomer of formula (I) in pure form is new.

(I) is a more potent inhibitor of cholesterol biosynthesis than the
 known cpd. ML236B (US 4049495 and 3983140) and can be used for
 treating hyperlipaemia (esp. hypocholesterolaemia) and
 atherosclerosis. It also has antifungal activity, e.g. against
 penicillium, Aspergillus, Cladosporium, Cochliobolus and
 elminthosporium spp. (9pp)



IT/ D16 79329 C/45 = US 4294-923
 fluorometric or spectrophotometric determ. of enzymes - by
 hydrolysis of amino acid deriv. of 7-amino-4 tri:fluoromethyl-
 coumarin to produce chromophore

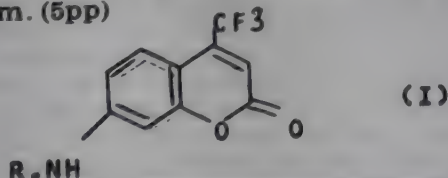
SMITH R E 23.04.79-US-032444

B04 (13.10.81) *EP-18-112 C12q-01/38

.04.79 as 032444 (974TM)

the presence of enzyme in an enzyme-contg. analyte is
 determined by (a) contacting it with a substrate of formula (I)
 which can be hydrolysed by the enzyme to 7-amino-L1-
 fluoromethyl coumarin (II); (b) incubating to form an enzyme
 hydrolyzate and (c) fluorometrically or spectrophotometrically
 determining (II) in the hydrolysate.

(I) is an opt. blocked amino acid or peptide of which the terminal
 amino acid is opt. blocked. Pref. the analyte is a biological fluid
 or cell cytoplasm. (5pp)



ICA ★ D16 81639 D/44 ★ US 4294-924
 container for growing anaerobic microorganisms - has dish filled
 with agar and cover sealingly closing dish

DATA PACKAGING CORP 25.02.80-US-123966

(13.10.81) C12m-01/22 C12q-01/24

.02.80 as 123966 (67HM)

Container comprises a dish filled with agar closed by a separate
 cover and surrounded by a spill trough. When the cover is placed
 on the dish to close it excess agar spills out of the dish into the
 trough forcing air out of the container. The agar solidifies at

the clearance between the cover and the rim to form a seal which
 prevents re-entry of air or O2 into the container.

The container is completely filled with agar bearing the
 microorganisms and may be opened for inspection without using
 an agent to remove trapped O2. The dish and cover can be made
 of transparent material to enable the microorganisms to be
 viewed. (8pp)

MERI ★ D16 81640 D/44 ★ US 4294-926
 Prepn. of antifungal etc. lactone designated MSD-803 - by
 cultivation of Aspergillus terreus ATCC 20541 and 20542

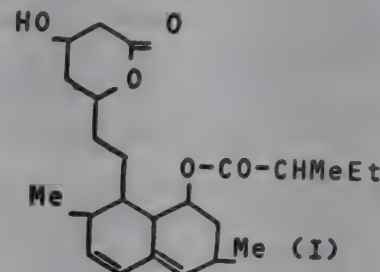
MERCK & CO INC 23.01.80-US-114458 (15.06.79-US-048946)

B03 C02 (13.10.81) C12p-07/26 C12p-17/06

23.01.80 as 114458 Div Ex 4231938 (1248AS)

Prepn. of a lactone (MSD-803) of formula (I) or the corresp. free
 acid involves cultivation of an Aspergillus terreus strain, esp.
 ATCC 20541-2, in a nutrient medium.

Cpd. (I) and the free acid are inhibitors of the biosynthesis of
 cholesterol in mammals and so are useful as
 antihypercholesteremic agents for treating atherosclerosis,
 hyperlipaemia etc.; they are also antifungals esp. for use as plant
 protection agents. The cpds. are described in US 4231938 (Der.
 84207 C/47). (9pp)



GYOG D16 38559 C/22 = US 4294-927
 Genetic modification of antibiotic-producing Micromonospora
 strains - by protoplast of two mutants at least one of which is
 genetically labelled (BE 12.5.80)

GYOGYSZERKUTATO INT 13.11.78-HU-GO1430

B04 (13.10.81) *DE2945-762 C12n-15

08.11.79 as 092554 (965PW)

Prodn. of an antibiotic producing Micromonospora strain, having
 modified genetic material (I) comprises preparing, following
 cultivation in a glycine medium, a protoplast suspension of each
 of 2 genetically different mutants of antibiotic-producing
 Micromonospora with lysozyme under osmotically buffered
 conditions ensured by sucrose. The 2 suspension obtd. are
 combined in the presence of PEG and incubated at room temp.
 The resulting fused protoplasts are then suspended in soft agar
 and the plated on an agar plate contg. sucrose, proline and
 incubated for 20-30 days. Regenerated colonies that are sure to
 have genetic material different from the 2 mutants are selected.
 Prior to fusion the protoplasts of 1 of the mutants are heat
 inactivated at 55 deg.C for 3 hrs., permitting the genetic material
 of the non-heated protoplasts to be transferred into the cytoplasm
 of the heat inactivated protoplasts.

The process is used to improve the productivity of antibiotic-
 producer strains having industrial importance. (5pp)

RANG D16 74880 S/47 = US 4294-929
 Edible proteins produced using non-toxic microorganisms

RANK HOVIS MCDUGAL LTD 24.06.70-GB-030584
 (14.05.70-GB-023452)

C03 (D13) (13.10.81) *BE-767-232 + C12n-01/14 C12r-01/77

05.12.77 as 857991 C.i.p 4061781 (+4.5.71, 8.11.73, 5.8.76-US-140303,
 414102, 711964) (965PW)

Biologically pure fungal culture contains a strain (I) of Fusarium
 graminearum Schwabe I.M.I 145425 or a mutant or variant of (I).
 (I) is present in a culture medium (II) which contains or is
 supplied with nutrients or additives necessary for the sustenance
 and multiplication of (I). (II) has pH 3.5-7, and is kept at a precise
 value within the range 25-34 deg.C. Pref. (II) contains essentially
 growth promoting nutrients, of which C in the form of assimilable
 carbohydrate constitutes the limited substrate in proliferation.

(I) is an edible protein contg. substance, possessing a high
 net protein utilisation value of at least 65 based on the alpha
 amino N. (7pp)

MILE D16 36748 D/21 = US 4294-930

Recovering long chain microorganisms from culture broth - by
 submitting them to shearing conditions before sepn. (DK 28.3.81)

MILES LABORATORIES INC 22.08.79-US-068876

(13.10.81) *FR2463-805 C12n-01/02

22.08.79 as 068876 (965PW)

Recovery of chain-forming microorganisms (I) from a culture
 broth (II) with improved yield, comprises subjecting (I) to
 shearing conditions in apts. (III) to shorten the chain length of

(I). The packed cell vol. (IV) of (I) is reduced. (III) is a high speed disperser, a homogeniser or a sonic oscillator. (I) are then recovered from (II) by centrifugation.

Pref. (IV) prior to recovery is 5 vol.% wrt. (II) vol. Pref. (I) are chain-forming lactic acid producing microorganisms, esp. *Streptococcus cremoris*, *S. lactis*, *S. diacetylactis*, *S. thermophilus*, *Lactobacillus bulgaricus*, *L. helveticus*, *L. casei*, and *L. plantarium*. (5pp)

BIOS- **D16** **50317 D/28 = US 4294-931**
Radiorespirometric assay device contg. labelled substrate - connected to chamber for trapping evolved radioactive gas, e.g. for identifying or detecting bacteria

BIOSPHERICS INC 26.12.79-US-107383

B04 K08 (13.10.81) *GB2066-461 C12m-01/20

26.12.79 as 107383 (974TM)

Microbiological radiorespirometric assay is conducted under aerobic or anaerobic conditions using a device which comprises a support member which includes pairs of chambers.

One chamber in each pair contains a radioactive labelled substrate which is capable of being metabolised by at least some microorganisms to yield a radioactive gas. The other chamber in each pair contains a collector for the gas. The chambers of each pair communicate via a passageway opening into the top of each and including a closure. The passageway is either in the support member or in the closure. (9pp)

See Also

D12 J56085239

D13 EP--37932

D13 EP--37999

D13 FR2478493

D13 GB2074004

D13 J56085255

D13 J81042250

D13 US4294856

D17 GB2074167

D17 J56117796

D17 J81042275

D18 J81042898

D21 J56118012

D17: SUGAR; STARCH

NYUY-★ **D17** **79999 D/44 ★EP--37-812**
Conversion of waste cellulose to glucose - by acid hydrolysis in aq. slurry in twin screw extruder

NEW YORK UNIV 18.03.80-US-131340 (18.03.80-US-131339)

E13 (21.10.81) C13k-01/02

18.03.81 as 101951 (513MR) (E) No-Citns. E(AT BE CH DE FR GB IT LI SE)

The waste cellulose is fed continuously into an inlet port of a twin screw extruder and reacted continuously with water in the presence of an acid catalyst at elevated temp. and pressure in a reaction zone between the inlet and outlet ports of the extruder. The reacted cellulose is at least quasi-continuously discharged from the extruder while maintaining the elevated temp. and pressure in the reaction zone by forming a dynamic seal zone at the upstream end of the reaction zone and valving the discharged downstream of the outlet port.

Process allows continuous conversion of cellulosic materials such as waste paper, sawdust, etc., into glucose at high rate of conversion, to give a prod. suitable as a raw material for the prodn. of ethanol. (34pp)

CORP **D17** **72356 D/40 = EP--38-130**
Starch and protein recovery from starch bearing materials - with reuse of part of process water

CPC INTERNATIONAL INC 20.01.81-GB-001643 (26.03.80-GB-010226)

(21.10.81) *GB2072-209 C131-01/02

25.03.81 as 301288 (955JB) (E) No-Citns. E(AT BE DE FR IT NL SE)

In a first stage (i) aq. slurry of the comminuted material is formed and then (ii) a starch rich fraction is sepd. from the greater part of the other components of the slurry. Then (iii) the starch fraction is washed in at least one stage to give a slurry of required purity, fresh water being introduced at step (iii) and reused in steps (i) and (ii). The improvement comprises sepg. a stream of process water into first and second fractions, of which the first has a lower content of both soluble and insoluble matter and is recycled for use with fresh water in step (iii).

The modification is esp. useful in the sepn. of corn starch and protein. It enables the starch washing steps to be carried out at higher dilution to give a purer prod without increasing the amt. of water used, which eventually has to be disposed of as light steep water. Alternatively, the use of water can be reduced, and a smaller quantity of more conc. steep water produced, without redn. in the purity of the starch produced. (30pp)

NOVO★ **D17** **80325 D/44 ★GB 2074-167**
Saccharification of starch hydrolysates - to high dextrose contg. glucose syrups using combination of glucoamylase and isoamylase

NOVO INDUSTRIAL A/S 11.03.80-US-129314

(D16) (28.10.81) C12p-19

09.03.81 as 107287 (955AT)

A starch hydrolysate is hydrolysed to a high dextrose equiv. glucose syrup by treatment at a pH of 3-5 with a combination of glucoamylase and isoamylase.

The substrate is typically a starch hydrolysate soln. of DE 8-12 and solids content 20-50%, esp. 30% saccharification is carried out at 50-60 deg.C, using 0.05-0.3 AG units glucoamylase per g. dry substance, esp. 0.075-0.15 AG units per g. and 25-500, esp. 100-200 /IA units per g. dry substance, of isoamylase.

A higher degree of conversion can be achieved with reduced levels of enzyme, as the optimum pH values for max. activity of the enzymes match, and therefore this pH can be used. (10pp)

GREAS★ **D17** **80339 D/44 ★GB 2074-187**
Extn. of sugar from plant tissue esp. beet - with addn. of carbon dioxide to diffusion water flow near juice end of appts.

GREAT WESTERN SUGAR 14.10.80-US-196548 (22.04.80-US-142664)

(28.10.81) C13d-01/02

21.04.81 as 112382 (955JB)

In the extn. of sugar from plant tissue, the plant tissue is contacted near the juice end of the process with diffusion water contg. carbon dioxide. The process is esp. applicable to sugar extn. from sugar beet cossettes. The CO₂ may be dispersed in the diffusion water from nozzles in the bottom of the appts. near the juice end. It can also be added in the form of a carbonate or bicarbonate salt, or as solid CO₂. Typically at least 0.5, esp. 0.625 kg CO₂ are used per metric ton of beet processed.

The efficiency of sugar extn. and the purity of the juice obtd. are increased. (12pp)

MITD★ **D17** **80443 D/44 ★J5 6117-798**
Sugar compsn. mfr. - by enzymic converting sucrose to paratinose and controlling fructose and glucose by regulating temp.

MITSUMI SEITO KK 20.02.80-JP-019103

(D16) (16.09.81) C12p-19/12

20.02.80 as 019103 (5KB)

Sucrose is converted to paratinose with the enzyme produced by bacteria method comprises controlling the content of by-produced glucose and fructose through regulating the converting temp. and solidifying whole compsn. The converted soln. is then refined using strongly acidic cation exchange resin and weakly basic anion exchange resin in combination and the refined soln. is solidified by spray-drying method, solidifying and crushing method, vacuum-drying method, foam-drying method, etc.

By the enzymic conversion, 70-92% of sucrose is converted to paratinose and 2-20% of by-produced glucose and fructose are contained in the converted soln. The content of glucose and fructose is increased with elevation of the converting temp. and by regulating the converting temp. the converted soln. having prescribed glucose and fructose content are obtd. (7pp)

AJIN **D17** **91056 Y/51 = J8 1042-275**
Prepn. of material for use in citric acid fermentation - by forming glucose and fructose from semi finished prod. of sugar mfr., sepg. part of fructose and neutralising remaining soln.

AJINOMOTO KK 30.04.76-JP-049462

E13 (D16 E17) (03.10.81) *J52134-077 + C12p-07/48 C12r-01/72

30.04.76 as 049462 (5NS)

Method comprises hydrolysing the half-finished prod. of sugar factory (e.g. raw cane juice, raw sugar, cane molasses, beet molasses or refinery molasses) to form glucose and fructose, sepg. the formed fructose partly by adding calcium to the hydrolysate; neutralising the remaining soln. with gaseous carbon dioxide and using the neutralising prod. directly as the material for citric acid fermentation using yeast of *Candida*.

Pref. sugar juice is hydrolysed with an acid or enzyme e.g. with hydrochloric acid at pH 1.5-2 at 60-100 deg.C for 0.5-4 hrs. The hydrolysate is neutralised with alkali. Quick lime or slaked is then added to the hydrolysate to separate calcium adduct of fructose partly (30-90% esp. 50-65%) by crystallising it once or twice. The sepd. adduct is, after washing with water, neutralised with acid to isolate fructose. The remaining soln. after sepn. of fructose, is neutralised with gaseous carbon dioxide. The obtd. liq. contains CaCO₃ and can be used as the material for citric acid fermentation from a yeast of *Candida* e.g. *C. citroformans* AJ14473 (FERM-P 3072) and its variety *C. citroformans* AJ 14500

(FERM-P 3397).

The sugar purity of the material is decreased by recovering fructose, but the fermentation yield is increased. Sugars in the material can be better utilised and the load for treating waste water is not increased. Citric acid and fructose are prepd. inexpensively. (J52134077) (4pp)

VELT/ D17 72159 D/40 = US 4294-824
Prepn. of particulate carbohydrate(s) from soln. - by granulation with solid prod, then drying with dielectric heating
VELTMAN P L 14.03.80-US-130531
(13.10.81) *EP--36-309 C13f-05 C13k-11 + C13f-01
14.03.80 as 130531 (006PW)

Carbohydrate soln. specifically fructose, is dried to stable particulate form by co-mingling it with recycled dry prod. solid material, to form a dryable particulate admixt. which is then dried by dielectric heating and divided into two portions of which one is recovered and the other recycled.

Prof. the amt. of recycled material is 5 to 20 pts.wt., and its particle size is adjusted to 50-500 microns. (15pp)

See Also

D16 J81042908

D18: SKINS; HIDES; LEATHER; TOBACCO

BRTA * D18 79780 D/44 ★BE -889-265
Tubular transverse circulation filter tip for cigarette etc. - is now mass produced to compete with axial flow filter tip
BRIT AMER TOBACCO LTD 18.06.80-GB-019887
A97 J01 P15 (16.10.81) A24d
17.06.81 as 889265 (448BZ)

A cigarette filter tip of the tubular, transverse circulation type. Also a method and an installation for the mfr. of the tip. The tip is of the type comprising a central, tubular filter diaphragm with an outer layer of fibrous packing material permeable to smoke. The fibrous layer is externally sleeved with a film of material impermeable to the smoke. One end of the tip is formed by sealing a transverse barrier across the fibrous layer. At that cross-section smoke can only flow through the central passage of the tubular diaphragm. The other end of the tip is formed by closing together and sealing the wall of the tubular diaphragm. At this second end smoke can only progress axially via the fibrous layer.

The tubular filter diaphragm is pref. made of thermoplast fibres partic. cellulose acetate, polypropylene or regenerated cellulose. The packing layer fibres are pref. also of thermoplastic material, partic. cellulose acetate. Heat sealing is pref. employed to render selected cross sectional areas impermeable to smoke.

Used for mass prodn. of filter tips for cigarettes etc. The tubular transverse circulation filter tips are more efficient than axial flow tips for a given pressure drop in the inhaled smoke. The new tip is simple and cheap to mfr. (20pp)

LEDE- * D18 79849 D/44 ★DD -149-940
Cleaning animal pelts process - uses fatty alcohol ether sulphate or tri:ethanolamine salt of higher alkyl sulphate
VEB LEDERFAB STADTI 31.03.80-DD-220028
(05.08.81) C14c-01/08

31.03.80 as 220028 (513DH)
In a process for cleaning animals pelts, a chemical agent of formula

$R1-O-SO_2-O-R2(I)$
is used, in which R1 is Na, K or 10-16C alkyl and R2 is -NH(C₂H₄)H)3 or -(C₂H₄O)n-R3 in which n = 1-5, esp. 3, and R3 = 8-15C, esp. 10-14C alkyl.

(I) has an excellent cleaning and emulsifying effect on fats and contaminants on the pelts, has good cleaning effect at 20-35 deg.C, is resistant to high electrolyte concns. and are effective in a pH range of 2.5-12. Pelts cleaned in the presents of (I) also exhibit excellent subsequent dyeing performance with aniline dyes. (8pp)

KIND/ * D18 79855 D/44 ★DD -149-947
Pattern dyeing of chrome leather - by first applying a printed pattern of a dicyandiamide fixing agent in high concn. to inhibit dyeing in printed areas

KINDER D 31.03.80-DD-220035
E24 (05.08.81) D06p-03/32
31.03.80 as 220035 (513AT)

In a process for forming patterned prints on chrome leather using aniline dyes, a standard fixing agent (I) is first applied to the leather in an amt. of at least 5% w.r.t. active material, and the leather is then printed with an anionic dye. Pref. (I) is a dicyandiamine condensn. prod.

In a pref. process, the fixing agent is applied at 4.5-5% concn. at the edges of the patterned areas and the leather is watered prior to printing to cause dilution of the agent at the edges of the pattern zone.

Applcn. of fixing agent in concns. of more than 5% causes the formation of areas in which no dyeing occurs. By applcn. of smaller concns. of fixing agent round the edges of the pattern areas, increased dye pick-up can be achieved round the edges of

the pattern of undyed areas, thus allowing unusual decorative effects to be obtd. Process is suitable for treating shoes, handbags, briefcases, belts, etc. (5pp)

MERI D18 37528 B/20 = EP G001-887
2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a)-pyridine(s) - useful as anthelmintics and fungicides

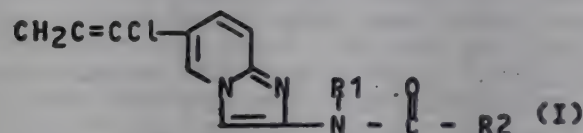
MERCK & CO INC 12.10.77-US-841260

B02 C02 E13 (D13 D21) (21.10.81) *EP---1-887 A61k-31/44 C07d-471/04

09.10.78 as 300474 (945JB) (E) DE2655681 DE2702790 US3701780 US4092321 1.Jnl.Ref E(BE CH DE FR GB LU NL SE)

Imidazo (1,2-a) pyridine cpds. of formula (I) and their acid addn. salts are new. In the formula, R1 is H or alkyl and R2 is alkoxy or alkyl. The alkyl and alkoxy gps. usually contain up to 6C. (I) are prepd. by reacting 2-amino-5-trichlorovinyl pyridine with Y-CH₂-CO-NR1-CO-R2, where Y is Cl, Br or I.

(I) are useful as antihelmintic agents and e.g. may be administered to sheep, swine and cattle in 3-12 (2-8) g. doses, or added to feed at levels of 0.5-2.0%. They are also effective fungicides used for protection of rubber, food, plants, paint, textiles, fur, leather, cosmetics, etc. (8pp)



SACO- * D18 80082 D/44 ★EP --38-105
Conversion of tri:valent chromium in ash to hexa:valent chromium - by back-wetting and roasting the ash

SACO TANNING KIRSTE 00.00.81-EP-200556 (19.06.78-US-916464)

E31 (21.10.81) C14c-03/06 C22b-34/32

00.00.81 as 200556 Related to EP---6101 filed 1.12.78 (513AT) (E) No-Citns. E(DE FR GB IT)

Process for improving conversion of trivalent chromium in tannery or similar ash contg. oxidising chemicals and the like, comprises backwetting and roasting the ash. The process is esp. useful for treating ash obtd. by rendering trivalent chrome treated leathers alkaline and incinerating these in the presence of air and carbonate.

Process allows improved recovery of chromium from tannery waste, gives good control over pollution from tannery prim. treatments and gives improved overall efficiency in tannery process operations. (15pp)

SACO- * D18 80083 D/44 ★EP --38-106
Reclaiming chromium from roasted ash hexa:valent chromium - by forming a slurry with sulphuric acid, reducing to trivalent chromium, and filtering to give a extract soln. contg. reclaimed chromium

SACO TANNING KIRSTE 00.00.81-EP-200557 (19.06.78-US-916464)

E31 (21.10.81) C14c-03/32 C22b-07/02 C22b-34/32

01.12.78 as 200557 (513) (E) US4086319 DS-955806 1.Jnl.Ref E(DE FR GB IT)

In a process for reclaiming chromium from roasted chromium ash contg. hexavalent Cr, the ash is first slurried with H₂SO₄ and water, then a reducing agent (I) is added to convert hexavalent Cr to trivalent Cr. An extract soln. is then filtered out to provide reclaimed Cr and the residue is washed with water to provide a water wash which is used in waste treatment processing, e.g. flocculation, or used as a component of a pickling soln. or recycle soln.

Process allows use of ash obtd. by incineration of leather tanning waste to be processed giving an extract soln. useful as a

chrome tanning liquor with specific tanning properties. The water wash is useful as a flocculating agent in waste water treatment for recycling to the tanning process. The residue from the water wash is a clay-like material which is non-polluting and may be disposed of safely, or which may find use as a filler in leather mfr. The process reduces pollution problems of chrome tanning of leather. (15pp)

FRTW **D18** **26236 B/14 = GB 1601-546**
Hide splitting machine feed rolls - supported in swivelling levers for stress reduction

FORTUNA-W MASCHFAB AG 15.09.77-DE-741648
+ P62 (28.10.81) *DE2741-648 + B26d-03/28

26.05.78 as 022999 (006MR)

Band knife splitting machine for soft goods, such as leather and rubber, has two superposed feed rolls respectively journaled at the ends of two intersecting pivotable levers. The other end of the lower feed roll lever is pivoted at a point above the plane of the band, while the other end of the upper feed roll lever is pivoted at a point below that plane.

The useful material is ejected downwardly, and the waste material upwardly, so that both can be collected separately and not mixed together. (6pp)

ROHG * **D18** **80329 D/44 ★ GB 2074-173**
Polymer soln. or dispersion for treating pelts and leather - based on polymer contg. (meth)acrylic acid ester s) contg. nitrogen gpa., acrylic acid ester(s) and (meth)acrylic acid

ROHM GMBH 11.04.80-DE-013912

A97 (A14) (28.10.81) C08f-220/18 C14c-01 C14c-03/22

10.04.81 as 111347 (478RH)

A soln. or aq. dispersion of a polymer (I) is suitable for the treatment of pelts and leather. (I) is based on monomeric units of (a) esters of acrylic and/or methacrylic acid contg. N gpa.; (b) esters of acrylic and/or methacrylic acid; and (c) acrylic and/or methacrylic acid.

The compsns. are useful for improving the grain condition of leather during retanning, in levelling dyeing, as ampholytes for neutralising chrome leather, in improving the uptake of fat in conjunction with mineral tannins for dressing furskins and in restoring leather.

(I) pref. contain (by wt.) 5-25% (a), 67-92% (b), and 1-8% (c); have average mol.wt. 2 x 10 power 4 - 5 x 10 power 6; and have glass temp. (Tg) pref. below room temp. An esp. pref. (I) is prepd. from (by wt.) 70-85% Bu acrylate, 5-15% Me methacrylate, 5-15% dimethylaminoethyl acrylate, and 1-5% acrylic acid. Pref. (a) include R1R2N-A-OCO-C(R3):CH2 where R1R2 are 1-4C alkyl; R3 is H or Me; A is up to 10C opt. branched alkylene (2-5C pref. 2-4C chain), or ring (5-6 ring atoms; opt. substd. by alkylene). Pref. (b) are esters of 1-14C, pref. 1-8C, esp. 1-4C alcohols. (10pp)

KOSU/ * **D18** **80617 D/44 ★ J5 6118-500**
Mfg. regenerated leather from waste natural leather - by forming skin of serum protein contg. short and long fibres, freezing, drying, etc.

KOSU K Y 26.02.80-JP-022236

F08 (17.09.81) C14b-07/06

26.02.80 as 022236 (15AS)

Skin of serum protein contg. short and long fibres is produced from the waste natural leather, frozen at a temp. of -30 to -40 deg.C and vacuum dried. Plate material is produced from the skin and impregnated with adhesive and fluffed.

Regenerated leather is used for producing gloves, jacket and hand-bags. (5pp)

NISB **D18** **77268 A/43 = J8 1042-897**
Tobacco or tobacco substitute contg. 2-hydroxy beta-ionone - as flavour improver

JAPAN TOBACCO & SALT PUB 28.02.77-JP-020346

E15 P15 (07.10.81) *J53107-497 A24b-03/12 + C07c-13/20 C07c-49/20

28.02.77 as 020346 (5DH)

Smoking material contains 4-(5-hydroxy-2,6,6-trimethyl cyclohexene-1-yl)-3-butene-2-one (i.e., 2-hydroxy-beta-ionone) (I). By including (I) in an amt. of 0.0001-0.01 w/w% in tobacco or tobacco material, the taste and flavour of the prod. is greatly improved. Any kind of tobacco, including synthetic tobacco obtd. from synthetic fibre or tissue cultured prod. of vegetable origin can be improved.

It is known that (I) can be synthesised from beta-ionone to give a racemic prod. It has now been found the beta-ionone can be converted to (I) by the action of certain microbes to give an optically active prod. Both types of (I) obtd. by the two methods have a sweet flower-like fragrance and can be used as sensitiser for taste and flavour of smoke and to mitigate irritation of smoke. The optically active (I) obtd. by microbial conversion is superior to the racemic (I) in taste and flavour and in its improving effect.

(J53107497) (3pp)

NISB **D18** **77269 A/43 = J8 1042-898**
Prepn. of tobacco perfume - by microbial conversion of methyl-ionone

JAPAN TOBACCO & SALT PUB 28.02.77-JP-020347

E15 P15 (D16) (07.10.81) *J53107-498 A24b-03/12

28.02.77 as 020347 (5TM)

Method comprises (a) culturing a microbe selected from *Aspergillus*, *Rhizopus* and *Penicillium*, (b) adding methyl-ionone to the culture medium, (c) continuing the culture and (d) obtaining the cultured prod. contg. perfuming components or (d') fractionating the cultured prod. to obtain fractions contg. perfuming components. As methylionone, alpha-n-methylionone, beta-n-methylionone, gamma-n-methylionone, alpha-isomethylionone, beta-isomethylionone and/or gamma-isomethylionone can be used.

The perfume is a mixt. of about 30 ingredients. The perfume can suppress the stimulus of tobacco and can give mildness and roundness to taste and flavour of tobacco. (J53107498) (10pp)

NISB **D18** **09085 B/05 = J8 1042-899**
Improving flavour of Stevia plant extract for use in tobacco - by heat-treatment in presence of Tamarind extract and Euphorbia extract

JAPAN TOBACCO & SALT PUB 23.05.77-JP-059573

P15 (07.10.81) *J53145-995 A24b-03/12 + A23l-01/22

23.05.77 as 059573 (5MR)

The heat-treatment is pref. at 100-120 (120-160) deg.C for 1 minute-several hours, pref. in the presence of a polyhydric alcohol such as ethyleneglycol, diethyleneglycol, glycerin, etc.

Tamarind extract can be obtd. by extracting matured mesocarp of Tamarind indica L with water and/or hydrophilic organic solvent and it contains organic acid, pectin, etc. Euphorbia extract can be obtd. by extracting Euphorbia Longana Lamarck with water and/or hydrophilic organic solvent and it contains a large amt. of sugars and N-contg. cpds. (J53145995) (4pp)

NISB **D18** **09086 B/05 = J8 1042-900**
Improving flavour of Stevia plant extract for use in tobacco - by heat-treatment in presence of prim. and/or sec. amine(s) and Tamarind and/or Euphorbia extract

JAPAN TOBACCO & SALT PUB 23.05.77-JP-059574

E16 P15 (07.10.81) *J53145-996 A24b-03/12

23.05.77 as 059574 (5MR)

The heat-treatment is pref. at 100-200 (140-180) deg.C for 5 minutes-several hours, pref. in the presence of a polyhydric alcohol such as ethyleneglycol, diethyleneglycol, glycerin, etc.

Tamarind extract is obtd. by extracting matured mesocarp of Tamarind indica L with water and/or hydrophilic organic solvent and it contains organic acid, pectin, etc. The extract of Euphorbia is obtd. by extracting fruits of Euphorbia Longana Lamarck with water and/or hydrophilic organic solvents and it contains a large amt. of sugar and N-contg. cpds. Amine is applied at 0.5-30 w/w% on the sum of solids in the above extracts. (J53145996) (6pp)

NISB **D18** **09087 B/05 = J8 1042-901**
Improving flavour of Stevia plant extract for use in tobacco - by heat-treatment in presence of amino acid

JAPAN TOBACCO & SALT PUB 23.05.77-JP-059575

E19 P15 (07.10.81) *J53145-997 A24b-03/12 + A23l-01/22

23.05.77 as 059575 (5MR)

The heat-treatment is pref. at 100-200 (140-180) deg.C for 5 minutes - several hours, pref. in the presence of a polyhydric alcohol such as ethyleneglycol, diethyleneglycol, glycerin, etc. Carbonyl cpds. (including sugars), organic acids and amino acid. in stevia extract are reacted with the amino acid through amino-carbonyl reaction, etc. which improves the flavour.

The amino acid may be glycine, alanine, valine, leucine, isoleucine, serine, threonine, tyrosine, proline, phenylalanine, glutamic acid, etc. and is pref. applied at 5-30 wt.% on the solids in the Stevia extract. (J53145997) (4pp)

NISB **D18** **46519 B/25 = J8 1042-902**
Binder for reformed tobacco leaves - comprises polysaccharide derived from *Porodiscus pendulus*

JAPAN TOBACCO & SALT PUB 20.10.77-JP-125115

A97 P15 (07.10.81) *J54059-400 A24b-03/14 + C12p-19/04

20.10.77 as 125115 (42MR)

A binder (I) for reformed tobacco leaves, principally composed of the polysaccharide (II) elaborated by *Porodiscus pendulus* (III) in Basidiomycetes.

(I) is used for reformation of artificial tobacco leaves from tobacco powder and other vegetable powders that are produced for reformation of artificial tobacco leaves and/or accumulated from surroundings of tobacco processing machines. As (I),

carboxy methyl cellulose methyl cellulose, guar gum and others have been used. However, they damage the taste of tobacco. The present (I) does not damage the taste and has high binding effect. (J54059400) (4pp)

CAMP-★ D18 D/44 ★PT--72-536
Continuous recovery of trivalent chromium - from tannery effluent waters
CAMPOMARZIO IMPIANT 19.02.80-IT-020020
(D15) (12.10.81) C14c

YAKU=★ D18 81329 D/44 ★SU-802-364
Preparing leather for shoes with fur inside - by pickling, tanning, oiling, chemically cleaning and softening, polishing and finishing
YAKUTSK LEATH FOOTW 02.08.77-SU-504301
(15.02.81) C14c-01 C14c-13
02.08.77 as 504301 (70VE)

Leather for liningless warm shoes is prepd. by pickling the hide, tanning, oiling, polishing and finishing. The flesh side of the leather is prepd. for a velure finish by splitting the hide before pickling, in two layers (thickness 2-2.2 mm), chemically cleaning and softening. The oiling is carried out with 4-6% (w.r.t. the intermediate product) of a compsn. contng. (in wt.%) leather paste 25-35, sulphonated fat 35-45, soap-monopol 15-25, fish fat 5-15. The chemical cleaning and softening is pref. carried out for 1.0-2.5 hr. using a cleaning and defatting compsn. contg. (in wt.%) OP-7 or OP-10 surfactant 0.5, sulphanol 0.3, pancreas enzyme 0.4-0.5, the balance is water.

This method is suitable for the prodn. of shoes for use in northern regions. The shoes are made from cattle hides with hair inside the shoe. Bul.5/7.2.81. (3pp)

ROHG D18 82713 C/47 = US 4294-087
Simultaneous swelling and unhairing of hides - by alkaline protease treatment after cleaving di: sulphide linkages
ROHM GMBH 28.04.79-DE-917376
(13.10.81) *DE2917-376 C14c-01/06
02.04.80 as 136678 (945WB)

Hide, free of preservative salt is pretreated in the acid pH region with material (I) which cleaves disulphide bridges. Then, without a previous softening, hair is loosened and the hide structure is simultaneously opened by treatment with a protease at pH 11-13.

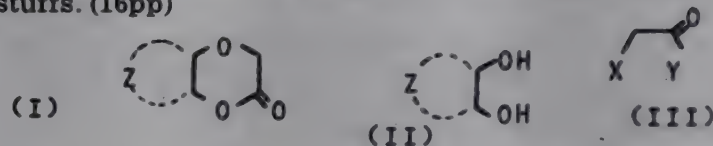
Pref. serine protease is used. Suitably (I) is R-SH where R is (a) 2-6C alkyl, opt. OH or SH- substd; (b) (CH₂)_n(CHR₁)COOH where R₁ is H, 1-6C alkyl or amino and n is 0-6; or (c) R₂CO where R₂ is 1-6C alkyl. Alternatively, (I) is R'C(S)NH₂, where R' is H, 1-6C alkyl or amino.

High quality dehaired pelts are obtd. and the hair is recovered in optimum conditions. Method is economically and environmentally attractive. (5pp)

INFL★ D18 81474 D/44 ★US 4294-266
Flavouring tobacco with 1,4-benzodioxan-2-one - or hexa:hydro-1,4-benzo-dioxan-2-one
INT FLAVORS & FRAGR INC 02.05.80-US-145985 (13.09.79-US-075071)
E13 P15 (13.10.81) A24b-03/12
02.05.80 as 145985 Div.ex 4241097 (513AS)

The aroma or taste of smoking tobacco is augmented or enhanced by incorporating a cpd. (I) in which Z is a benzo or cyclohexano gp. The (hexahydro) 1,4-benzodioxan-2-ones impart a sweet, spicy, vanilla-like, woody, hay, tobacco-like aroma prior to smoking and a sweet, spicy, hay tobacco-like aroma on smoking. They may be incorporated into the tobacco or into filters or wrappers in contact with the tobacco.

(I) are prepd. by reacting (II) with (III) in the presence of B, in which X is Cl or Br; Y is Cl, Br or OR; R is 1-3C alkyl; B is MOH, MH, MOR', trialkylamine or M₂CO₃ in which M is alkali metal, esp. Na or K; and R' is lower alkyl, with the proviso that B is trialkylamine or alkali metal carbonate if Y=Cl or Br and B=MOH, MH or MOR' if Y is OR. Parent specification US4241097 (01859 D/02) relates to use of (I) an organoleptic agent in foodstuffs. (16pp)



See Also

D16 J81042909

D2: DISINFECTANTS; DETERGENTS

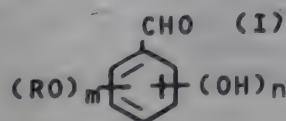
D21: DENTAL; TOILET PREPARATIONS

OREA★ D21 79769 D/44 ★BE-888-454
N-n-oxidative hair dyeing - with hydroxylated benzaldehyde derivs.

L'OREAL SA 17.04.80-FR-008645
E14 (16.10.81) A61k C07c
16.04.81 as 888454 (367NS)

Dyeing of keratinic fibres (esp. hair) without an oxidising agent is carried out using novel compsns. contg. hydroxybenzaldehyde derivs. of formula (I) or their bisulphite adducts: (where R is lower alkyl opt. substd. by 1 or 2 OH gps; n is 1-3; m is 0-2; n+m is 2 or 3; with the proviso that (i) when m is 0 and n is 2 or 3, the OH gps. are in the 3,4-, 2,4-, 3,5-, 2,3,4-, 2,3,6-, 2,3,5-, 2,4,6-, 3,4,5- or 2,6-posn., and (ii) when m=n=1, the substituents are as follows: 2-OH-6-OR, 2-OR-3-OH, 3-OH-4-OR, 3-OH-5-OR, 2-OH-5-OR, 2-OH-3-OCH₂CH₂OH, 2-OH-5-OCH₂CH(OH)CH₂OH or 2-OH-3-OEt). Prefd. compsns. contain (I) where n+m is 3 or 2,6- or 3,5-dihydroxy-benzaldehyde. The compsns. are pref. acidic and can contain 0.05-10 (pref. 0.1-5) wt. % (I).

The compsns. give mainly yellow shades with good fastness to light, washing, weather and perspiration. (26pp)



WACK D21 34851 C/20 = EP G011-714
Catalysed silylation of aliphatic multiple bonds - with platinum complex catalysts, used to crosslink organo:polysiloxane(s) contg. alkenyl gps., e.g. to give dental impression material

WACKER CHEMIE GMBH 26.10.78-DE-846621
A26 E11 G02 P32 (A82 A85 A96) (21.10.81) *DE2846-621 A61c-09 B01j-31/30 C07f-07/08 C08g-77/38
26.10.79 as 104155 (922MR) (G) DE2724822 US3159601 US3159662 US3453234 US3814730 E(AT BE CH DE FR GB IT NL SE)

A catalyst of formula

(diene)₂PtX₂ or (R₂SO)(Z)PtY₂

where diene is a cyclic hydrocarbon having 2 aliphatic C-C double bonds, pref. cyclopentadiene, X are the same or different halogen or alkyl gps., pref. Cl and having 1-4C respectively, each R is a (substd.) hydrocarbon, Z is a hydrocarbon contg. a C-C double bond and each Y is a halogen (the second catalyst pref. being dimethylsulphoxide ethylene platinum dichloride) is used to add Si-bonded hydrogen to an aliphatic multiple bond (e.g. to modify and/or crosslink polymers).

They can be produced in purer form by pptn. reactions and are more active at lower temps. (6pp)

DEGS★ D21 79994 D/44 ★EP--37-891
3-Mercapto-propane-1,2-diol prepn. - by reacting liq. hydrogen sulphide with glycidic in presence of heterogeneous or homogeneous phase catalyst

DEGUSSA AG 12.04.80-DE-014165
B05 E17 + P83 (21.10.81) A61k-47 B01j-21/02 B01j-23/02 B01j-29/06 C07c-148 C07c-149/18
21.02.81 as 101252 (1401BZ) (G) CH-574408 DE2129162 DE2209458 DE1801551 E(BE CH DE FR GB IT LI NL)

The prepn. of 3-mercapto-propane-1,2-diol (I) comprises reacting

liq. H₂S with glycidate at a pressure such that H₂S remains in liq. form. Reaction is catalysed either in heterogeneous phase at 30-150 deg.C using a solid catalyst or in homogeneous phase at 30-180 deg.C using a catalyst which dissolves in the reaction medium.

The molar ratio liq. H₂S to glycidate is pref. 3:1-10:1 (esp. 4:1-6:1). Pressure is pref. 15-200 bar. The heterogeneous catalyst is pref. an aluminium oxide (esp. an activated aluminium oxide with alkali content 0.02-5 wt.%) or a sodium aluminium silicate (esp. a zeolite or hydroxysodalite). The homogenous catalyst is pref. an alkali hydroxide or an alkaline earth hydroxide. Reaction is pref. carried out in a small amt. of a solvent such as water or a lower aliphatic alcohol.

(I) is an important inter, and can be used in the synthesis of hair cosmetics, depilatory agents, protecting agents against UV and X-rays, stabilisers for pharmaceutical formulations, photographic developer solutions, colour stabilisers for polymers, enzyme activators in enzyme-contg. detergents.

(I) is obtd. in high yields using a technically simple method. When a homogenous catalyst is used, the presence of the dissolved catalyst in the crude product does not interfere with distillative work up and has no effect on the final yield. The use of the homogeneous catalyst is esp. useful for discontinuous processes in autoclaves or stirring appts. (14pp)

UYNV. D21 69730 D/38 = EP --38-191
5-Acyl-salicylanilide derivs. - useful as general antiseptics esp. in oral preparations against dental plaque and caries

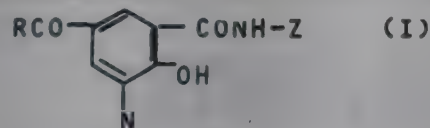
UNIV OF NEW YORK 14.04.80-US-140098

A60 B05 E14 (D22) (21.10.81) *US4287-191 + A61k-07/24 A61k-31/61 C07c-103/76

10.04.81 as 301585 (1248AT) (E) GB1493375 E(AT BE CH DE FR GB IT LI NL SE)

5-Acylsalicylanilide derivs. of formula (I) are new (Z is substd. Ph contg. up to 30C; R is substd. or unsubstd. alkyl or Ph contg. 2-30C and M is CN, F, NO₂, H, 1-5C alkyl or haloalkyl. The substituents in Z have an overall electron withdrawing effect on the Ph ring. Compsns. contg. (I) have a partition coefft. over 4).

Cpds. (I) are non-toxic general purpose antiseptics and preservatives that are esp. effective against micro-organisms associated with dental plaque and associated diseases such as forms of dental caries, periodontal diseases and other oral infections. They may also be used as preservatives in paints, textiles, synthetic resins, medicines, foods, etc. Used in soln. at 0.1-5 micrograms/ml to inhibit microbial growth. Specifically claimed are 16 cpds. (I) including cpds. in which M is H, Z is p-NO₂C₆H₄ and R is Me(CH₂)₆ or Me(CH₂)₁₀. (31pp)



UYNV. ★ D21 80129 D/44 ★ EP --38-192
5-Substd. salicylanilide derivs. - useful as oral antiseptics

UNIV OF NEW YORK 08.08.80-US-176419 (14.04.80-US-140098)

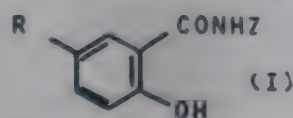
B05 (21.10.81) A61k-07/24 A61k-31/61 C07c-103/76

10.04.81 as 301586 (367KB) (E) GB1229669 GB-946029 US3377238 GB-728098 DS-618213 FR2234274 E(AT BE CH DE FR GB IT LI NL SE)

5-R-N-Z-salicylamides of formula (I) are new: In (I), Z is a 6-30C substd. phenyl gp. and R is a 4-30C opt. substd. n-alkyl or phenyl gp. (I) are antiseptics with low toxicity and high activity against bacteria involved in dental plaque, caries, gingivitis and other oral infections.

14 Cpds. (I), including those where Z is p-nitrophenyl and R is n-Bu, n-hexyl or n-octyl, are new.

A mixt. of 5-n-hexylsalicylic acid, 50 ml chlorobenzene and 0.6 ml PCl₃ was stirred at 60 deg.C for 3 hr., cooled to room temp. treated with 1.86g p-nitroaniline, stirred at 60 deg.C for 3 hr., and refluxed for 24 hr. The solvent was evapd. off and the residue recrystd. from aq. EtOH, triturated with conc. HCl, washed with water and recrystd. from aq. EtOH to give 2.6g of (I; Z is p-nitrophenyl, R is n-hexyl), m.pt. 154-155 deg.C. (31pp)



FABR ★ D21 80147 D/44 ★ EP --38-246
Zinc retinoate and its inclusion complexes - with polyethylene glycol, polyvinyl pyrrolidone, polysorbate 80 and urea is used to treat skin and scalp problems

FABRE P SA 04.04.80-FR-007720

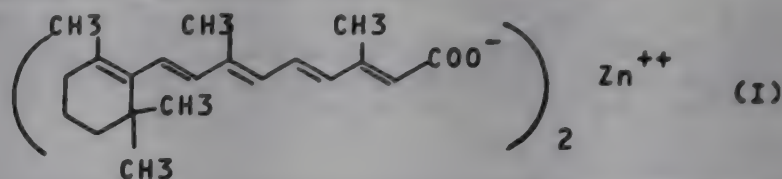
A96 B05 E12 (21.10.81) A61k-31/20 C07c-175

02.04.81 as 400530 (395HM) (F) FR2081478 GB1466062 FR2128148 E(AT BE CH DE FR GB IT LI LU NL SE)

Zinc retinoate of formula (I) is new. (I) may be in the form of an inclusion complex with polyethylene glycol, polyvinyl-

pyrrolidone, polysorbate 80 or urea. Prod'n. of (I) comprises treatment of a retinoic acid salt, e.g. Na salt, with a stoichiometric quantity of a Zn salt, e.g. sulphate or chloride, in a solvent. Suitable solvents include water, polyethylene glycol, PVP, polysorbate 80, urea and their mixts. (I) may be used alone or with other active cpds. and classical excipients to form solutions, dermal creams, gel, lotions, shampoos etc. (I).

Dermatological and/or cosmetic topical compns. used to treat skin and scalp problems, such as seborrheic dermatoses, acne, dandruff, parakeratosis, alopecia etc. and reduce skin sensitivity. (I) also has cicatrisation activity. (9pp)



BALA/ ★ D21 80179 D/44 ★ FR 2478-468
Aq. compsn. contg. two sodium hyaluronate fractions - and associated proteins, useful in skin care cosmetics

BALAZS E A 21.03.80-US-133481

A96 E19 (25.09.81) A61k-07/48 C08b-37/08

19.03.81 as 105489 (1251AT)

Aq. visco-elastic compsn. (A) comprises (a) a mixt. of 2 fractions of Na hyaluronate (I), one having mol. wt. 1000-0.2m, and the other mol. wt. 1-4.5m at wt. ratio 0.3-2:1. (b) about 50-400% on wt. of (a) of protein derived from the natural substance used as a source of (I), and (c) the balance water. Pref. compsns. have pH 6-7.5, but this may be lowered to pH 2.5 by adding HCl.

Cosmetics for treating the skin contain (by wt.) 0.05-5% (A); 1-5% emollient (isopropyl linoleate or myristate, or best squalene); 1-5% sugar alcohol (sorbitol or mannitol); 0.2-1% neutral or anionic polysaccharide (pectin, alginate, carrageenin or best carboxymethylcellulose); 0.05-2% preservative, bacteriostatic and fungistatic agent (esp. propyl p-hydroxybenzoate) inert towards (I), plus water.

(A) have emollient, moisturising, lubricating and elasticising effects on the skin. They are non-irritating to the skin or eyes, are immunologically inactive, and the visco-elastic properties can be adjusted to achieve the degree of skin penetration required. (12pp)

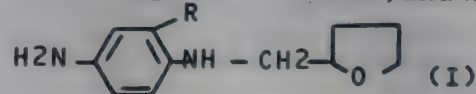
OREA D21 06301 B/04 = GB 1601-187
Dye compsns. for keratin fibres esp. hair - contain substd. para-phenylene-di:amine derivs. contg. a tetra:hydro-furfuryl gp.

L'OREAL SA 24.06.77-FR-019530

E13 (28.10.81) *DE2827-658 A61k-07/13 C07d-307/14 + C09b-57 26.05.78 as 023548 (945PW)

Compsn. for dyeing human hair comprises an aq. soln. of a p-phenylene diamine deriv. dye of formula (I) or its salt, and at least one of a thickener, sunlight filter, optical brightener, sequestering agent, direct dye, cosmetic resin, organic solvent, cationic treatment prod., perfume and other oxidn. dye. In the formula, R is H, Cl or CH₃.

Cpds. (I) are novel, provided that if R is H, the cpd. is in salt form. (I) impart natural shades to keratin fibres which shades have good stability to light, bad weather, and washing. (27pp)



PENN ★ D21 80333 D/44 ★ GB 2074-180
Dental cavity varnish compsn. - contg. nitrocellulose and toluene sulphonamide and inert solvent(s)

PENNWALT CORP 14.04.80-US-140322

A96 (28.10.81) C08l-01/18

16.03.81 as 008159 (478AT)

Dental cavity varnish compsn. consists of (by wt.) 3-10 pts. of nitrocellulose (I), and 0.5-6 pts. of toluene sulphonamide (II) in 100 pts. of one or more solvents.

Pref. varnishes contain (by wt.) 5-7.5 pts. (I) and 3.5-5 pts. (II) in 100 pts. of solvent. (I) is pref. supplied as a 25% soln. in a solvent system contg. 25% EtOH, 55% PhMe, and 20% EtOAc.

Varnish is compatible with composite resin restorative materials and amalgams etc., is fast drying and hydrophobic when dry, and has long shelf life and good sealing props. In addn., the varnish wets and exactly conforms to the shape of microundercuts generated during cavity prepn. (3pp)

DOWO ★ D21 80336 D/44 ★ GB 2074-184
Liq. detergent compsns. esp. for shampoos - contg. detergent and cyclic methyl-siloxane

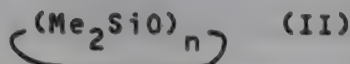
DOW CORNING CORP 09.04.81-GB-011208 (19.04.80-GB-012933)

A96 E11 (D25) (28.10.81) C11d-03/16

09.04.81 as 111208 (478AT)

Liq. detergent compsn. contains one or more detergents (I), and 0.5-20% by wt. (of compsn.) of one or more cyclic siloxanes of formula (II) (where n is 3-6). Pref. compsns. contain (by wt.) 2-10% (II); and 7.5-50%, esp. 10-25% (I); and H₂O and conventional thickeners, foam stabilisers, etc. Pref. (I) (for shampoos) are based on fatty alcohols or fatty alcohol ethoxylates, esp. those derived from lauryl and myristyl alcohol, and their salts. (II; n=3) is pref. used as a mixt. with a higher (II). (II) is pref. emulsified before it is incorporated into the compsn.

Compsn. is useful for shampooing of hair or other fibrous materials, when it has significantly reduced drying time. In addn., shampoos impart gloss and ease of combing props. to hair. (4pp)



INOZ ★ D21 80454 D/44 ★ J5 6118-009
High strength dental cement - contains resin and synthetic fibres of polyester, polyamide, etc. or granules of graphite, glass etc. for high mouldability

INOUE JAPAX RES INC 25.02.80-JP-021578

A96 (16.09.81) A61k-06/08

25.02.80 as 021578 (42RP)

A dental cement (I) is composed of a usual dental resin (II) and a fibre, fine piece or fine granule of a suitable material (III). (III) is selected so that the mechanical strength of the mixt. of (II) and (III) is a prescribed value.

Ester resins, acryl resins, methacryl resins, and epoxy resins are used as (II). Examples of (III) are synthetic fibres of polyester, polyamide, polyolefin, acrylate etc., and glass, carbon, graphite, alloys, etc. Before the mixing (II) with (III), (III) should be treated by electric discharge in an inactive gas under a reduced pressure.

(I) has high mechanical strength, high compressive strength, and high transparency. (I) is easily moulded in a desired shape. (3pp)

SEIW ★ D21 80455 D/44 ★ J5 6118-011
Hair setting compsn. - contains water, alcohol and water soluble keratin hydrolysate

SEIWA KASEI KK 22.02.80-JP-021158

A96 (16.09.81) A61k-07/06

22.02.80 as 021158 (42PW)

Hair-setting cosmetic (I) contains water, alcohol and water-soluble keratin-hydrolysate having 2 or more mercapto gps., which is prepd. by redn. of keratin with mercaptan or sulphide in alkaline pH followed by enzymic hydrolysis. Compsn. holds its hair-setting effect for a long period.

The reduction of keratin cleaves the disulphide-linkage generating mercapto gp. at the cleaved position. Enzymic hydrolysis depolymerises the reduced keratin by cleavage of the peptide-linkages. The hydrolysate is prepd. by adjusting the degree of the hydrolysis. When the compsn. is sprayed on hair, the hydrysate forms a layer coating hair, polymerising with disulphide-linkages caused by oxidn. with oxygen in air. Since amino and carboxyl in the hydrolysate strongly bind with those in hair, the layer of hydrolysed is hardly removed by being washed. The hydrolysate is produced from keratin of wool, hair, nail, etc. with use of mercaptan such as thioglycol, cystein, thioglycerol, etc. and sulphide such as sodium sulphide, or potassium sulphide. (5pp)

LIOY ★ D21 80456 D/44 ★ J5 6118-012
Oral compsn e.g. tooth-paste, mouth-wash etc. - contg. dextranase to inhibit oral tartar prodn. and, as stabiliser, a fatty acid ester of a sugar alcohol

LION CORP(LIOC) 23.02.80-JP-022071

(D16) (16.09.81) A61k-07/28

23.02.80 as 022071 (42RH)

Compsn. (I) contg. dextranase (II) with fatty acid ester (III) of sugar alcohol (IV) selected from lactitol, maltitol, malto-tritol, malto-tetra-itol, malto-penta-itol, malto-hexa-itol and malto-hepta-itol is new.

In order to prevent formation of tartar, a cause of dental caries, (II) is added in an orally administered composition. But (II) is easily decomposed by the actions of water and anionic cpds. in the compsn., losing its activity. Addn. of (III) stabilises (II). (I) is used as dentifrice, tooth paste, tooth powder, mouth wash, gargle, troche, etc.

(III) is non-toxic and has high foaming effect. (III) has no bitter-taste, and has features in high resistances against heat, acid and alkali. (IV) is produced by electrolytic redn. or catalytic redn. of the corresp. sugar. The fatty acid reacted with (IV) for prodn. (III) should have 8-20C, e.g. (10-18C), satd. acyl or 16-18C unsatd. acyl. The degree of esterification of (III) should be 0.5-3.0, e.g. (0.8-2.0). (6pp)

TAIY ★ D21 80654 D/44 ★ J5 6118-720
Emulsifier for water-in-oil emulsion - contg. liq. or pasty fatty acid ester of trihydric alcohol, pectin and/or hydroxypropyl guar gum and e.g. poly:ol

TAIYO KORYO KK 25.02.80-JP-021581

A96 (17.09.81) A61k-07/40 B01f-03/08 B01f-17

25.02.80 as 021581 (42AS)

Emulsifier compsn. (I) contains (i) 1 pt.wt. liq. or pasty fatty acid ester (II) of trihydric alcohol, (ii) 1-10 pts.wt. polyalcohol (III) having 3 or more hydroxyl gps., polyglycerol (IV) and/or disaccharide-alcohol (V); and (iii) 2-50 wt.pts. pectin (VI) and/or hydroxypropyl guar gum (VII).

Aq. emulsion of (I) is used as a base material of cosmetics. Pref. (II) is glycerol monoisostearate, glycerol monooleate, trimethylol propane monoisostearate or trimethylol propane monooleate. Pref. (III) is glycerol or sorbitol. Pref. (IV) is diglycerol or triglycerol; (V) is pref. maltitol. (II) may consist of a mixt. of di- and tri-ester, or mainly monoester. (5pp)

MERE D21 68116 V/39 = J8 1042-634
Mica-Berlin blue pigment prodn. - by in situ. conversion of insoluble iron cpd. coating

MERCK PATENT GMBH 17.03.73-DE-313332

G01 (06.10.81) *DE2313-332 C09c-01/40

16.03.74 as 030526 (AT)

An insoluble Fe cpd., which can be converted into Berlin blue, is pptd. onto the surface of mica flakes which are in aq. suspn. and which may have previously been coated with a metal oxide layer pref. TiO₂. Suitable Fe cpds. are Fe(III) phosphate, Fe (II) hydroxide, Fe(III) hydroxide, Fe (II) carbonate, basic Fe (III) acetate, or pref. Fe (II) phosphate or Fe (III) oxide hydroxide. These cpds. are converted to Berlin blue by the action of a water-soluble hexacyanoferrate, pref. the K salt at pH 3-6.5 in the presence of 0.01-10% nonionic surfactant and an oxidising agent, pref. O₂ or air in the case of Fe(II) cpds. Fe (II) hexacyanoferrate is a suitable cpd. which may be converted to Berlin blue by oxidation alone. The pigment contains up to 25 wt.% pref. 1-15 wt.%, Berlin blue as a layer 0.1-150 mm thick.

The pigment is used in cosmetic preps. (J49128028) (9pp)

DENM ★ D21 81482 D/44 ★ US 4294-349
Kit for repairing damaged porcelain dental prosthesis - contg. primer, bonding agent, resin and white powder

DEN-MAT INC 11.06.80-US-158487 (15.04.77-US-787754)

A96 Q34 (13.10.81) B65d-81/32

11.06.80 as 158487 Div.ex 4256603, 4117595 (+ 21.7.78-US- 928943) (513AS)

Repair kit for repairing damaged or fractured porcelain dental prosthesis comprises a compartmentalised box contg. separate containers of (a) a priming agent, (b) a bonding agent to adhere a restorative agent to porcelain and metal, (c) a pigmented masking restorative agent for the metal base, (d) a white powder restorative agent and (e) a resin to be mixed with the (c) and (d) to bond these in turn to the bonding agent (b).

Typical (a) is 30% aq. citric acid soln. (b) is e.g. a butanol soln. of gamma-methacryloxypropyltrimethoxysilane and gamma-glycidioxypropyltrimethoxysilane. (c) and (c) are esp. a series of white vitreous powders of different shades to enable a matching repair to be made. (e) is esp. an ethoxylated bisphenol A dimethacrylate resin.

The kits enable repairs to be made to damaged porcelain dental prostheses in situ in the mouth, using the process described in parent specification US 4117595 (74164A/41). (7pp)

OREA D21 56180 T/35 = US 4294-728
Improved foaming compsns - contg monoalcohols and esp cationic surfactants

L'OREAL SA 17.02.71-LU-062617 (17.02.71-LU-062616)

E17 (D24) (13.10.81) *BE-779-441 C11d-01/83 + A61k-07/06

26.11.79 as 097492 (+ 17.02.72, 04.04.75-US-227200, 5651307) (924AS)

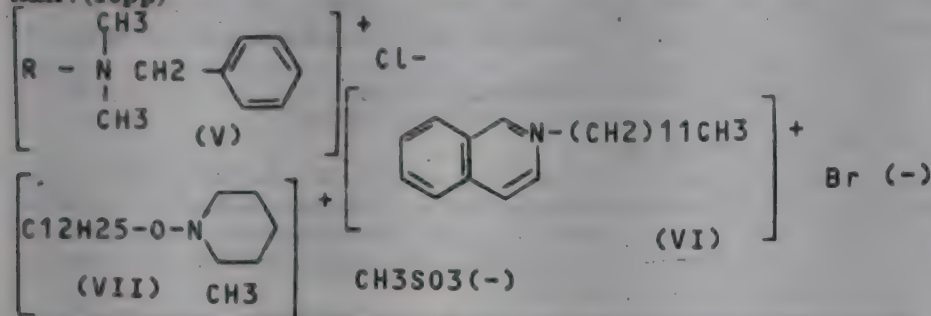
Shampoo compsn. comprises an aq. soln. of (a) 0.5-30 wt.% (based on total wt. of compsn.) of a surfactant of formula (I)-(VII) etc. and (b) 0.4-4.5 wt.% (based on total wt. of a straight chain 1,2-alkane diol.

Cl1H23COOCH2CH2N(CH2CH3)2 (I); RCO-)nCH2CH2N(C2H5)2 (II); RO(C2H3O(CH2OH)-)nCH2CHOH-CH2-N(CH2CH2OH)2 (III); RN(CH3)2O (IV)

In the formula, R is hydrocarbon chain from the fatty acid of copra, the hydrocarbon radical of oleic acid, the alkyl from the fatty acids of tallow, a mixt. of dodecyl to hexadecyl, isobutyl, a mixt. of dodecyl and tetradecyl, the alkyl from the fatty acid of copra; and n is 1-2.5. The diol is selected from 10-14C 1,2-alkane diols and their mixts.

The shampoo pref. also contains a nonionic surfactant in an amt. to give improved foam characteristics. The compsn. may also be used for bubble baths. The cationic, amphoteric or zwitterionic surfactant and diol have synergistic effect and

provide improved detergent properties and untangling of washed hair. (16pp)



JOHJ ★ D21 81600 D/44 ★ US 4294-852
Aq. skin-treating compns. - contg. lower alcohol and organic acid

JOHNSON & JOHNSON 21.08.75-US-607171 (01.11.73-US-411939)

B05 (13.10.81) A61k-31/19

21.08.75 as 607171 (367BZ)

Skin-treating compsns. comprise (a) 85-100 wt.% of an aq. phase contg. an alcohol (I) and an organic acid (II), and (b) 0-15 wt.% of a lipid phase. Specifically, (I) is n-propanol or a 4-6C monohydric aliphatic alcohol and is present in an amt. of 0.1-35 wt.% and (II) is a 2-10C aliphatic mono-, di- or tri-carboxylic acid opt. alpha- and/or beta-substd. by OH or keto and is present in an ant. sufficient to give a pH of 2-6.5.

The compsns. pref. contain 0-5 wt.% lipid phase, which can be wool fat, paraffin oil or petroleum. (I) is pref. n-butanol, n-pentanol or n-hexanol, present in an ant. of 0.1-5 wt.%. (II) is pref. propionic, valeric, caproic, oxalic, malonic, succinic, adipic, pimelic, maleic, lactic, alpha- or beta-hydroxybutyric, pyruvic, acetoacetic, glyceric, glycolic, citric, or tartaric acid, present in an amt. of 0.1-5 wt.%.

Suitable topical medicaments include retinoic acid, antinflammatory agents, antifungal agents, antimitotics, quat. ammonium cpds., carbonilides, saligylanilides, hydroxydiphenyls, organometallic or halogen antiseptics, urea, antibiotics etc.

The compsns. can be used as an emollient for dry or flaky skin or as a vehicle for topical medicaments. (5pp)

DESP ★ D21 81611 D/44 ★ US 4294-855
Emollient bath beads contg. urea - giving neutral soln. which is non irritating to skin

DESOTO INC 26.11.75-US-635282

E16 (13.10.81) A61k-07/50

26.11.75 as 635282 (955HM)

Bath beads comprise at least 50 wt.% of prilled urea, contg. 0.5-10 wt.% absorbed oily emollient, and being dried with a water soluble dye.

Suitable emollients include monoglycerides, fatty acid esters, mineral oil, higher alcohols or ethoxylated lanolin alcohols. It can be incorporated before or after prilling. The compsn. may contain anticaking agents, e.g. modified proteins, starches or gums, and opt. 0.1-3% germicide, and about 2-15% of surfactant esp. an alpha olefin sulphionate, which can give foaming effects if desired.

The urea provides good emollient effects and enhances the bead-like appearance of the prod. It is non-toxic and non irritating. The compsn. is unaffected by hard water. (3pp)

SQUI ★ D21 81630 D/44 ★ US 4294-894
Transparent tooth paste compsns. - contg. sodium chloride, silica and silica gel in gel base

SQUIBB E R & SONS INC 15.02.80-US-121933 (15.01.79-US-003565)

B05 Q34 (13.10.81) A61k-07/22 A61k-09/16 B65d-81/24

15.02.80 as 121933 (367BZ)

Toothpaste compsns. are prepd. by (a) forming a gelled mass from a gelling agent and a polyglycolic vehicle (pref. glycerol, sorbitol, diethylene glycol, polyethylene glycol and/or propylene glycol) at elevated temp.: (b) adding, while heating, an aq. buffer soln. in deionised water followed by NaCl in an amt. of 0.5-20% by wt. of the compsn; (c) cooling the mixt. adding deionised water, a silica thickener (I) and an amorphous silica gel (II), and stirring until a uniform single phase is obtained; and (d) cooling to room temp., deaerating to obtain a uniform transparent paste, and packaging the paste in unlined Al tubes.

Specifically, (II) has an av. particle size of 2-20 micron and a specific surface of 600-800 square m/g and is added in an amt. of 5-50% by wt. of the compsn.

The products are stable transparent gels which do not corrode unlined Al tubes. (5pp)

See Also

D13 SU802261.

D18 EPG001887

D22: BANDAGES; DRESSINGS

TENN/ ★ D22 79784 D/44 ★ BE -888-392
Plastic lens unit for intra-ocular implantation - esp. in rear chamber of eye, is positively located from ciliary channel

TENNANT J L 19.09.80-US-188819

A96 P32 P81 (13.10.81) A61f G02c

13.04.81 as 888392 (448)

Plastic lens unit for intraocular implantation by locating and fixing in a circular chamber in the eye of a patient comprises a lens having an integral radial arm with an outer end symmetrical segment having an outer edge radiused from a centre on the axis of the arm. Extending from the lens, is an elastically flexible finger. The outer end of the finger is curved in an arc concave towards the lens and centred on the axis of the opposed arm.

Pref. the plane of implanted contact of the edge of the arm segment and the outer end of the finger lies in front of the lens surface when the lens unit is for implantation in the rear chamber of the eye. This keeps the lens clear of the iris. Pref. the lens, arm, segment and flexible finger are all made of the same material. Alternatively, the lens, arm and segments can be made of comparatively rigid material like polymethyl methacrylate while a more flexible material, such as polypropylene is used for the finger.

Lens to be implanted as treatment for cataract etc. The unit can be conveniently introduced through the pupil. It is easy to centralise the lens and to fix the unit so that it cannot be accidentally displaced. Loading is evenly distributed over the edge of the arm segment and curved finger end, so that stresses on cell tissue are minimised. (19pp)

BEGH- ★ D22 79777 D/44 ★ BE -889-261
Elastic fastening for baby's disposable pilch - in three-part simple construction

BEGHIN-SAY SA 19.08.80-FR-013577

F07 P21 (16.10.81) A41b

17.08.81 as 889261 (1359AT)

An elastic fastening for fixing the front and back surfaces of a baby's disposable pilch is formed of three parts: a first side part; a central stretch part (which stretches in the direction of the fastening) and a second size part.

An elastic fastening is provided having a stiffness only until the moment of use. The simplified fastening increases the yield of pilch garment in production. (18pp)

KAOS ★ D22 79784 D/44 ★ BE -889-277
Composite twisted threads with high water absorption - contg. modified cellulose fibre which contracts on contact with water, and non-shrinking filament

KAOSOAP KK 27.04.81-JP-063602 (19.06.80-JP-083390)

A11 F02 (16.10.81) D02g

18.06.81 as 889277 (513HM)

Composite twisted thread is comprised of at least two filaments twisted together, at least one filament (I) diminishing in length and becoming elastic in contact with water and at least one other filament (II) whose length remains substantially unchanged in contact with water. The filaments (I) are e.g. of modified cellulose, cotton, rayon, etc. which have been subjected to methylation, carboxymethylation, ethylation, hydroxyethylation, sulphation, sulphonation, phosphorylation, etc., or grafting with Na acrylate, acrylic acid, acrylonitrile or acrylamide. Pref. filaments (I) are of carboxymethylated cellulose with a degree of carboxymethylation of 0.15-0.40 or crosslinked carboxymethylated cellulose with a degree of carboxymethylation of 0.25-0.70 and a coefft. of torsion of at least 3.0. Filaments (II) are e.g. of nylon, acrylic fibres, vinylon, polyester polyethylene, rayon, acetate, hemp, cotton, linen, silk, etc.

The composite twisted threads have high water absorption properties and retain high strength when wet. They are useful in the prodn. of absorbent articles such as diapers. (30pp)

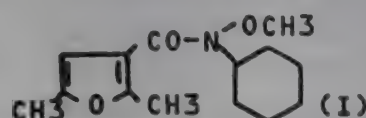
WOLM ★ D22 79888 D/44 ★DE 3014-194
Antifungal timber preservative - contg. an aq. soln. of 2,5-di:methyl-furan-3 carboxylic acid n-methoxy-n-cyclo:hexyl-amide and an alkyd resin

WOLMAN DR GMBH 14.04.80-DE-014194
A82 C02 F09 P63 (22.10.81) B27k-03/50 C09d-05/14
14.04.80 as 014194 (280AT)

New timber preservatives contain an aq. soln. of 2,5-dimethyl-furan-3-carboxylic acid N-methoxy-N-cyclohexyl-amide (I) and an alkyd resin.

The alkyd resin is pref. a neutralised alkyd resin. The new agents pref. contain an insecticide (esp. gamma-hexachlorocyclohexane), an additional fungicide (esp. tributyl-tin derivs), and an alkylene oxide addn. prod. of an alkylphenol (esp. the addn. prod. of nonylphenol with 8-11 mol ethylene oxide).

(I), which is normally water-insoluble dissolves in water in the presence of alkyd resins without losing its fungicidal activity, so that the solns. are effective timber preservatives. (9pp)



STEI ★ D22 79958 D/44 ★DE 3015-220
Odorous substance removal from effluent air - e.g. in food industries by scrubbing with water contg. nonionic and or ampholytic cpds.

STEINECKER A MASCH GMBH 19.04.80-DE-015220
E19 P34 (22.10.81) A611-09/14
19.04.80 as 015220 (200DH)

Odorous substances are removed from the outgoing air of brewery- and malting-, coffee roasting-, fish processing- and soup flavouring plant and from works for disposing of animal bodies, etc., by scrubbing with sprayed-in washing water contg pref 0.1-3 (0.5-1.2) wt % added (A) nonionic cpds and/or (B) ampholytic cpds.

The nonionic cpds (A) can be (A1) partial esters of polyalcohols, e.g. glycerol mono- or di-stearate and -oleate, sorbitol monostearate and -oleate, or (A2)ethylene oxide- or propylene oxide adducts with fatty acids, fatty alcohols, fatty amines, partial fatty acid esters of polyhydric alcohols, esp of glycerol and sorbitol, alkylphenols, water, ie. polyalkylene glycols. The ampholytic cpds (B) can be (B1) long-chained substd aminoacids, e.g. N-alkyl-di-(aminoethyl)-glycine, N-alkyl-2-aminopropionate or (B2)betaines, et. (3-acylaminoethyl)- dimethyl-glycine and alkyl-imidazolium-betaines.

The process is non-polluting. (A) and (B) can be decomposed biologically and can be discharged with waste water. Smelly substance content of waste air is lowered appreciably, e.g. to 7.4% as opposed to 66% without adding 1% polyethylene glycol-sorbitan laurate to washing water for scrubbing mashing- pan vapours. (15pp)

DAIK ★ D22 80009 D/44 ★EP --37-939
Surgical multifilament suture with good slipping properties - having baked tetra:fluoroethylene copolymer in its interstices

DAIKIN KOGYO CO LTD 26.03.80-JP-039220
A96 F06 P34 (A14) (21.10.81) A611-17
26.03.81 as 102284 (558KB) (E) GB1511425 GB1281592 E(CH DE FR LI)

A surgical multifilamentous suture has incorporated in its interstices 1-30 wt.% a tetrafluoro-ethylene copolymer of mean particle size 100-500 millimicrons, the portion of the copolymer present at least in the vicinity of the suture surface being baked.

The suture has good slipping properties (low coefficient of friction) and good knotting characteristics. It retains the polymer particles free of deformation, esp. without formation of fine fibrous whiskers, even when subjected to an external force, unlike conventional PTFE-impregnated sutures.

The use of a copolymer of tetrafluoro-ethylene and at least one of hexafluoro-propylene, perfluorovinyl ether, ethylene and propylene, e.g. a tetrafluoro-ethylene-hexafluoro-propylene (95:5-80:20) copolymer, is claimed. (17pp)

FRAU D22 75973 D/42 = EP --37-944
Adsorption and catalytic decomposition of intestinal gases - e.g. in colostomy patients using a porous adsorbent surface-coated with aluminium, zinc, chromium or iron

FRAUNHOFER-GES FORD ANGE 03.04.80-DE-013255
(21.10.81) *DE3013-255 B01d-53/34 + B01j-20/02
27.03.81 as 102337 (280JB) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

In the adsorption and catalytic decompsn. of ill-smelling intestinal gases (esp. mercaptans), the intestinal gas is passed through a highly specific adsorbent which from a mixt. of water vapour, methanol, carbon monoxide, carbon dioxide and various S-contg. gases (esp. mercaptan-contg. gases)

catalytically decomposes and adsorbs only the sulphur- or mercaptan-cpds., these opt. being desorbed in the form of odourless fragments.

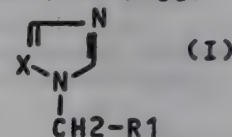
New highly specific adsorbent for use in the procedure contains an inset, highly porous solid with a specific surface (BET) or 900-1800 square m/g or pyrogenic silica with a specific surface of 50-500 square m/g (specific surfaces being measured by argon adsorption at -196 deg.C) with surface of which is occupied by 0.1-5 wt.%. Al, Zn, Cr or Fe with a specific surface of 1000 square m/g.S Used in suppression of mercaptan odour in patients fitted with an anal prosthesis (e.g after surgical treatment of intestinal cancer). (24pp)

JANC ★ D22 80086 D/44 ★EP --38-109
Preservative for coatings, wood, organic substrates etc. - contg. an aralkyl-imidazole or aralkyl-triazole BR 18.8.81)

JANSSEN PHARMACEUT NV 04.02.80-CH-000870
A60 C02 F09 P34 + P63 (F06) (21.10.81) A01n-43/68 A611-02/16
B27k C09d-05/14 C11d-03/28 D06m-13/34
03.02.81 as 300446 (1248NS) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Preservative for coatings, wood and other non-living organic substrates comprises an aralkyl-imidazole or -triazole of formula (I) or its acid-addn. salts, together with a carrier, (x is N or CH; R1 is CY-Ar or CHR-Ar; Y is O-Z-O; Z is (CH2)2, (CH2)3, (CHMe)2 or CH2-CHR2; R2 is 1-10C alkyl; Ar is thienyl, halothienyl, naphthyl, fluorenyl or Ph opt. substd. by 1-3 halogen, CN, CF3, NO2, 1-6C alkyl or alkoxy; R is 1-10C alkyl, cycloalkyl, cycloalkyl-lower alkyl, lower alkenyl, Ar'-O lower alkyl, Ar'- lower alkyl or OR3; R3 is 1-10C alkyl, lower alkenyl or alkynyl or Ar'-lower alkyl; and Ar' is naphthyl, or Ph opt. substd. by 1-3 halogen, CN, NO2, Ph, lower alkyl or alkoxy, provided that when 2 or 3 substituents are present, only 1 may be CN, NO2 or Ph).

Cpds. (I) are antimicrobials effective in protecting coatings, wood etc., esp. oil or dispersion paints, lacquers, whitewash, coloured coatings, timber, lumber, railway sleepers, telephone poles, fences, wood prods. used in housebuilding, wood pulp for paper manufacture, joint fillings of tile walls, tiles in polymeric materials, paper hangings, hides, bath carpets, plastics devices, glues, mortar, textiles, etc. (31pp)



JOHJ D22 75430 B/42 #GB 1601-170
Water absorbent and retentive matted fibre material - has two layers crimped fibres of looser and compact fibres bonded by interlayer of thermoplastic fibres

JOHNSON & JOHNSON 28.03.78-DE-813278 (22.03.78-GB-011414)
A94 F04 + P32 P73 (A96) (28.10.81) *DE2813-278 B32b-05/26
B32b-27/02
22.03.78 as 011414 (1376TM)

High loft, low density, non-woven fibrous material consists of a first layer of irregularly arranged mechanically interengaged fibres other than of thermoplastic synthetic wood pulp, and a second layer fused to the first of loose fibres including zone of synthetic wood pulp.

The wood pulp fibres have a melting point lower than that of any other fibres present, and are more frequent near the first layer.

Material is used as a component of a childs napkin, or in other absorbent prods. such as surgical bandages, disposable bed pads etc. (16pp)

MICH/ D22 62157 A/35 = GB 1601-249
Medicaments for desensitising flea bites - contg. allantoin or its derivs.

MICHAELID 18.02.77-US-770101
B03 C02 (28.10.81) *DE2806-910 A61k-31/16
18.02.78 as 006227 (945PW)

The allergic reaction of a host to a flea bite is hyposensitised by admin. of heptenic allantoin. Haptenic allantoin may be free allantoin of formula NH-CO-NH-CO-NH-CO-NH2 or low mol. wt. combinations of allantoin such as allantoin N-acetyl-DL methionine. Other materials may be combined with the allantoin provided they do not promote cell destruction and histamine release.

Allantoin neutralises the antibody in the bloodstream specific to flea-bite antigen. It also neutralises B-lymphocytes to arrest the cloning process necessary for antibody formation. Admin. is pref. oral or by subcutaneous injection. The allantoin may be added to food (100 mg/day for cat or dog) or drinking water 0.1-0.5 mg/ml.). (5pp)

CONT-★ D22 80263 D/44 ★GB 1601-430
Cleaning of contact lenses - by treating with aq. buffered soln. of reducing agent

CONTACT LENSES MFG 23.05.78-GB-021321
A96 E34 (E12 E16) (28.10.81) A01n-25

23.05.78 as 021321 (367AS)

Process comprises periodically contacting the lenses with a pharmacologically acceptable aq. buffered soln. of a reducing agent, pref. a metabisulphite, sulphite or nitrate.

The soln. pref. contains 0.03-5 (esp. 1) wt.% of the reducing agent, esp. Na (metabi)sulphite or NaNO₂, and can also contain a chelating agent (esp. EDTA, DTPA or their alkali metal salts) and a surfactant (esp. a water-soluble ethylene oxide/propylene oxide block copolymer). The pH of the soln. is pref. 6-8.

The treatment can be performed by the wearer and prevents or removes contamination and/or discoloration without significantly altering the lens parameters, esp. in the case of soft lenses made of hydroxyethyl methacrylate polymers. (12pp)

ETHI D22 00314 B/01 = GB 1601-503
Synthetic absorbable fibres for high strength sutures - comprise poly:alkylene oxalate having specified inherent viscosity in e.g. hexa:fluoro-isopropanol

ETHICON INC 13.06.77-US-806048

A97 F01 P32 P34 (A25) (28.10.81) *DE2825-911 C08g-63/16
15.05.78 as 019543 (965PW)

Synthetic absorbable suture comprises a sterile fibre of a polymer (I) of an alkylene oxalate having a major proportion of units of formula $-(R-O-CO-CO-O)n-$. R is 3-16 (4-10)C alkylene. n is the degree of polymerisation resulting in a fibre-forming polymer having an inherent viscosity of at least 0.4, when determined at 25 deg.C on a 0.1% soln. of (I) in CHCl₃ or hexafluoroisopropanol. Pref. (I) has straight tensile strength of at least 30,000 psi and a Youngs modulus of less than 600,000 psi. Pref. in (I) the oxalate is copolymerised with either a lactide and/or a glycolide.

The sutures can be sterilised using Co-60 without loss of their mechanical properties. They have good in vivo strength retention. (6pp)

ETHI D22 00314 B/01 = GB 1601-504
Synthetic absorbable fibres for high strength sutures - comprise poly:alkylene oxalate having specified inherent viscosity in e.g. hexa:fluoro-isopropanol

ETHICON INC 13.06.77-US-806048

A97 F01 P32 P34 (A25) (28.10.81) *DE2825-911 A61f-01 C08g-63/16

00.00.80 as 023500 Div ex 1601503 filed 15.5.78 (915KB)

Synthetic absorbable surgical prosthesis comprises a solid surgical aid cast or machined from absorbable alkylene oxalate polymer having units of formula $-(R-O-CO-CO-O)n-$ (I) (where R is 3-16C alkylene and n is the degree of polymerisation which gives polymers of inherent viscosity at least 0.4 (determined as 0.1% soln. in chloroform or hexafluoroisopropanol at 25 deg.C). Pref. the polymer is a polymer of 3-16C alkylene oxalate, opt. with up to 50wt.% of comonomer.

The polymers are used e.g. as scleral buckling prosthesis and cast films. Absorbable cylindrical pins, screws, reinforcing plates, etc. may be machined from the cast polymer. (4pp)

DENO-★ D22 80279 D/44 ★GB 2074-011
Diaper - with quick release fasteners provided by sewn on velcro strips

DE-NOL LABS PTY SA 14.04.80-ZA-002210

P21 (28.10.81) A41b-13/02

14.04.81 as 011845 (1358HM)

Diaper includes a quick-release element towards each end and on both sides of one body-encircling edge, complementary members on the opposite edge to cooperate with the elements, and a flexible fastener on the opposite edge and complementary to the element on the same side of the diaper.

The elements and members are pref. of Velcro type fastener material and the flexible fastener is a tape joined to the diaper at its mid-point and with a quick-release fastener at each free end. The diaper is e.g. a rectangular piece of material with three sewn edges and a folded edge, with darts to form a waistband. (4pp)

KOEI-★ D22 80616 D/44 ★J5 6118-499
Removing deposits in urine bowl - using pieces of solid obtd. by melting mixt. of condensed phosphate, or condensed phosphoric acid salt) mixed with metallic salts

KOEI YAKUHIN KOGYO 23.02.80-JP-021938

P28 Q42 (17.09.81) A47k-11/12 C11d-07/04 E03d-13

23.02.80 as 021938 (126RH)

Removal of several deposits accumulated in an urine bowl comprises gradually dissolving in the water or urine water a solid acid synthesised by heat-melting a mixt. consisting of a salt of condensed phosphoric acid, condensed phosphoric acid or its salt

The pieces of the solid acid (ca. 30 g-several 10 grams) are thrown into an urine bowl, and the solid acid is dissolved gradually by the water in the urine at every urination or at the washing of the bowl with water. Ammonia and H₂S which are the source of the disagreeable odour react with liberated ions of condensed phosphate and are fixed in the water. (3pp)

MITP ★ D22 80628 D/44 ★J5 6118-702
Treatment of ion exchange membrane for electrolysis - involves washing with alkaline soln. at specified temp. to remove contaminating microorganisms

MITSUBISHI PETROCH KK 25.02.80-JP-022597

J01 (17.09.81) B01d-13/02 B01j-47/12 B01j-49

25.02.80 as 022597 (42RP)

An ion exchange membrane (I), which has been contaminated with microorganism during electrolysis, is washed in 1-5 wt.% alkaline soln. (II) at 40-80 deg.C. Examples of the alkaline cpds. used in (II) are Na hydroxide, K hydroxide, Na carbonate, etc. An agent which forms water-soluble complex with divalent metal ion is pref. added in (II). Examples of the agent are iminodiacetate, EDTA, etc.

(I) is used in an electrolysis bath for desalting or concn. of a salt-soln., and microorganisms sometimes breed during the electrolysis, causing deposition of scale on the surface of (I). Washing of (I) with alkali cpd. hydrolyses the cell-membrane of microorganisms and makes it easy to peel them off. (4pp)

IZAW/★ D22 80638 D/44 ★J5 6118-713
Deodorising sheet e.g. for shoe insole - comprising porous layer contg. alpha-bromo cinnamic aldehyde and air-permeable layer

IZAWA G 21.02.80-JP-020903

A83 C03 P22 P34 (17.09.81) A43b-17 A61k-07/32 A61l-09/1

A61l-15 B01d-53/02 C08j-09/36

21.02.80 as 020903 (42RH)

A deodorising sheet (I) consists of a layer of porous material (II) contg. adsorbed alpha-bromo cinnamic aldehyde (III) and air permeable layer (IV) is new.

Since (III) has a strong antifungal effect, the present (I) is used as insole.

(III) is supported on such a porous (II) as nylon, tetron, zeolite, silicone or a sheet produced by pressing urethane foam, rubber foam, fibrous sheet or wood pulp and then laminating the sheet with use of a binder. (I) should consist of the first layer of porous cloth or net, the second layer of porous or not porous layer contg. (III), and the third layer of porous or hygroscopic material. (4pp)

MITQ ★ D22 80641 D/44 ★J5 6118-723
Deodorising gas by scrubbing with acidic and then with alkaline soln. - ozone gas being bubbled into at least one of the solns.

MITSUBISHI ELECTRIC CORP 21.02.80-JP-020861

E36 J01 (17.09.81) B01d-53/34

21.02.80 as 020861 (42PW)

When a gas (I) contg. bad malodorous compounds (II) is scrubbed with acidic solution and subsequently with alkaline solution ozone is bubbled into the acidic and/or alkaline absorbents. The addition of ozone in the absorbents oxidise neutral (II), resulting in complete deodorisation. Specifically solution of pH lower than 5 contg. such an acid as sulphuric acid or hydrochloric acid is used as acidic absorbent, and soln. of pH higher than 9.0 contg. such an alkali as sodium hydroxide, is used as the alkaline absorbent. (I) is scrubbed with the absorbents in packed towers. (4pp)

CANA D22 17240 Y/10 ★J8 1042-44
Aq. wood preservative contg. arsenic - having weather resistance and proof against discolouration (SW030177)

CANADIAN PAT & DEV LTD 09.06.75-SE-006569 (10.07.75) JP-084017

C03 E32 F09 P63 (05.10.81) *J52010-403 B27k-03/52

10.07.75 as 084017 Add to 1037564 (15KB)

Preservative consists of (a) an aq. soluble component of arsenic acid or arsenous acid and zinc and/or copper cpds. (b) 0.15-2 wt.% of water repellent of at least 1 of zinc carbonate, zinc bicarbonate, copper carbonate or copper bicarbonate; (c) water and (d) an aq. ammonia at 1-28 wt.% w.r.t. the water.

Preservative is used to treat timber by dipping or spraying and it imparts a superior fungicidal effect to *Coniophora puteana* and *Poria monticola*. (J52010403) (15pp)

VWET/★ D22 80987 D/44 ★NL 8001-2
Adhesive closure for throw-away hygienic article - has flexible strip with two adhesive areas on one and anti-adhesive layer on other side

VAN DE WETERING G J 03.03.80-NL-001264

P21 P34 (01.10.81) A41b-18/02 A61l-15

03.03.80 as 001264 (1190BZ)

away hygienic article such as a surgical apron or a baby's napkin. It comprises a flexible carrier strip having two spaced self-adhesive areas on one side whilst the other side is provided with an adhesion-repellent layer.

One adhesive area is affixed to one part of the article whilst the remainder of the strip is twice folded through 180 deg. so that the other adhesive area is in contact with the said layer until such time when it is unfolded for affixing to the other part of the article. (5pp)

VIBR- ★ D22 81018 D/44 ★ SE 8000-093
Mattress sterilisation plant cycle - uses water suction to separate sterilising gas from circulatory system

AB VIBRASUG 07.01.80-SE-000093

P34 (10.08.81) A611-02/20

07.01.80 as 000093 (1444PW)

Sterilising chamber comprising a fan, pressure pipe and suction pipe. The operating cycle includes a gas filling phase, sterilising phase, at least one evacuation phase, at least one ventilation phase and an emptying phase. The sterilising gas is removed during the evacuation phase, from the circulation system, mixed with water and filtered air is, at the same time, supplied to the system.

A system is provided for sterilising mattresses, laundry bags and similar goods using ethylene oxide, which during the evacuation phase reacts with water to form easily removable ethylene glycol. (Provisional Basic advised Week D35) (10pp)

MINN ★ D22 81471 D/44 ★ US 4294-240
Padding material for orthopaedic appliances - comprises closed pore polymeric foam with sweat perforations

MINNESOTA MINING CO 17.08.79-US-067394 (14.07.77-US-815857)

A96 P34 (13.10.81) A611-15

17.08.79 as 067394 (006NS)

The padding material of closed-cell polymeric foam is water-repellant, resiliently compressible and conformable, and elastic in lengthwise direction for easy application to a limb, as a lining for a plaster cast, by wrapping like a bandage.

Prof. the foam material is polyethylene, and the sweat perforations comprise spaced rows of transverse slits, with slits of adjacent rows staggered. (4pp)

MIYA/ ★ D22 81472 D/44 ★ US 4294-241
Collagen wound dressing prepn. - by extrusion of collagen gel, used esp. for burns

MIYATA T 19.11.79-US-086547 (09.06.77-US-805003)

A96 B04 P34 (B07) (13.10.81) A611-15

19.10.79 as 086547 (955NS)

Prod'n. of sheet form collagen skin dressing comprises a) treating a source of collagen with a proteolytic enzyme to form a telopeptide deficient monomolecularly dispersed atelocollagen extract b) ppting the atelocollagen, c) purifying the atelocollagen by redissolution and repptn, d) converting the atelocollagen into a gel, e) extruding the gel through a circular extrusion nozzle f) recovering the collagen tube, g) slitting the tube to form a sheet, h) crosslinking the collagen and i) freeze drying the sheet.

Prof. skin, hide etc. is treated with protease and the soluble protein fraction recovered. The protein is pref. purified by repeated solubilisation at pH 2.0-5.0 and pptn at pH 6.0-7.0. The collagen may be chemically modified e.g. it may be succinylated. Crosslinking may be carried out using e.g. glutaraldehyde.

The prod. is useful as a dressing for wounds and burns. It adheres well, effectively prevents fluid and electrolyte loss, is well tolerated and can remain in place for long periods. It is easy to use, readily available and cheap to prepare. (5pp)

HAHG D22 46411 C/27 = US 4294-253
sanitary tampon - made of fluid permeable strap folded over absorbing pad bent up around retrieving string

HAHN C GMBH 20.12.78-DE-855179

P32 (13.10.81) *DE2855-179 A61f-13/20

03.12.79 as 099771 (006PW)

Catamenial tampon is made from a flat cushion of absorbent material in a permeable cover, the outer margins of which are equally infolded to abut edge-to-edge. A withdrawal cord is then looped about the folded cushion, which is folded again about the cord.

The tampon swells to cup-shape when wet. (6pp)

ALKU ★ D22 81565 D/44 ★ US 4294-731
Drying chemically modified starch or cellulose - after mixing with water miscible amphiphilic cpd.

AKZONA INC 13.08.80-US-177678 (17.05.79-US-039725)

A11 F07 (13.10.81) C081-01

13.08.80 as 177678 (1302HM)

Chemically modified starch or cellulose materials are dried by mixing them with a water-miscible non-volatile amphiphilic

compd. not reactive with the starch or cellulose. Water is evaporated from the combined materials by heat without collapse of the structure of the starch or cellulose.

The cellulose is grafted with side chains containing acrylic or methacrylic acid units or is carboxymethyl or phosphorylated cellulose. It is water wet and has an open structure.

Particularly for absorbent materials, e.g. modified cellulose fibres of high saline absorbency for tampons and nappies. (9pp)

EIBO/ D22 79057 C/45 = US 4294-797
Sprayable medical or dental instrument sterilising mixt. - contg. alcohol-aldehyde active combination, oil, propellant and cleanser

EIBOFNER E (KALT) 24.04.79-DE-916552

+ P34 (13.10.81) *DE2916-552 A01n-31

18.04.80 as 141363 (945WB)

Method of lubricating and sterilising a medical instrument comprises spraying it with a servicing compsn. comprising lubricating oil and propellant and sterilising agent comprising isopropanol-aldehyde active mixt. in an amt. of 5-15 wt.% of the compsn. The aldehyde is formaldehyde or a succinic acid dialdehyde complex.

The instrument, wetted inside and outside with the compsn, is then heated to enhance the sterilising effect, until the active sterilising mixt. has vaporised.

Used esp. to sterilise dental hand pieces and angle pieces. The instruments need not be disassembled and sterilising temp. and time are reduced. (4pp)

AMSA D22 82930 C/47 = US 4294-804
Gas sterilisation for biocidal treatment of goods - using chamber evacuated to low pressure and partially pressurised again to sterilising temp. by steam

AMER STERILIZER CO 06.02.79-US-009818 (25.06.80-US-162812)

P34 (13.10.81) *EP--16-887 A611-02/20

25.06.80 as 162812 Div.ex 4241010 (006PW)

Sterilisation appts. which uses a chemically biocidal gas such as ethylene oxide, esp. for sterilising hospital equipment, dressings etc. comprises a sealable chamber which is evacuated and then supplied with conditioning steam followed by biocidal gas.

Inlet of steam and gas, as well as evacuation is effected by valves operated automatically by an electrical control system responsive to internal press. of the chamber. (8pp)

JOHS ★ D22 81600 D/44 ★ US 4294-821
Compsn. for absorbing odours from air - contg. diethylene glycol, triethylene glycol, propylene glycol, glycerol, unsatd. acid and diethanolamide

JOHNSON S C & SONS INC 15.12.80-US-216411

E17 P34 (E16) (13.10.81) A611-09/* A611-13

15.12.80 as 216411 (955HM)

Odour absorbing compsns. are claimed contg. 0.5-45 wt.% diethylene glycol, 0.5-45 wt.% propylene glycol, 0.5-30 wt.% triethylene glycol, 1-50 wt.% glycerine, 0.1-20 wt.% of a diethanolamide of a 16-18C unsatd. fatty acid, and 0.05-5 wt.% of an unsatd. fatty acid.

Prof. the compsn. contains 10-35 wt.% diethylene glycol, 1-15 wt.% propylene glycol, 5-20 wt.% triethylene glycol, 10.40 wt.% glycerine, 1-7 wt.% unsatd. fatty diethanolamide, and 0.1-2 wt.% unsatd. acid, which is pref. oleic acid. The compsn. pref. includes an antioxidant of BHA or BHT, and can opt. contain other odour absorbents e.g. Zn ricinoleate, perfume, antifoamers etc. and up to 99% of a diluent e.g. alcohol, hydrocarbon oil, ethylene glycol etc. If an aerosol is desired, conventional propellants may be used.

The compsn. effectively removes odours from the atmosphere, when used impregnated on a support or as an aerosol. (7pp)

ABBO ★ D22 81610 D/44 ★ US 4294-853
Biocides for cutting fluids - comprising 1,1-di-iodo-di-methyl sulphone and chelating agent

ABBOTT LABORATORIES 03.06.80-US-156141 (13.06.79-US-048202)

C03 E16 H08 (13.10.81) A01n-37/12

03.06.80 as 156141 (367HM)

Biocidal additive for industrial cutting fluids comprise 1 pt.wt. 1,1-di-iodo-dimethyl sulphone (I) and 0.5-250 pts.wt. of a chelating agent (II) comprising ethylene-diamine-tetra-acetic acid (EDTA), diethylene-triamine-penta-acetic acid or their alkali metal or ammonium salts. The additives are pref. used in the form of aq. dispersions contg. 10-60 wt.% of the combination of (I) and (II).

Combinations of (I) and (II) are effective at low concn. against both bacteria and fungi. They are not corrosive and can be stored as concn. aq. dispersions. (4pp)

CLEL/ ★ D22 81688 D/44 ★ US 4295-048
 Scanning charged particle beam by controlled deflection - esp. electron beam by energising selected ones of a series of deflection magnets across a conveyor

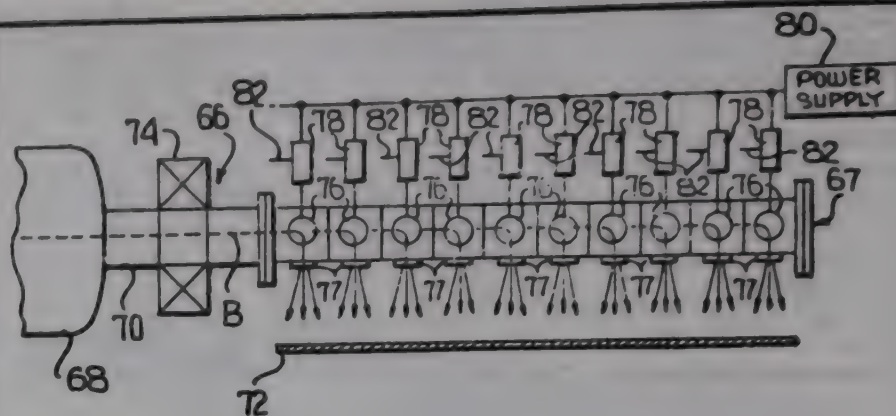
CLELAND M R 28.04.80-US-145061

A35 K08 S03 (13.10.81) G01k-01/08 G01n-23

28.04.80 as 145061 (1812NS)

A beam of charged particles is scanned across a conveyor patch. The beam is produced by an accelerator and controllably deflected to a series of discrete locations on the path. The beam is kept at each location for a time which determines the required dosage at the location.

The system may be used for electron irradiation e.g. to produce cross-linking, sterilising or curing. Variable dosage at different areas of a target can be produced without changing beam intensity. (10ppDwg.No.4)



See Also

D21 EP--38191

D23: OILS; FATS; WAXES

FIRM D23 79412 B/44 = EP G004-968
 3-Norbornyl-glycidate alkyl ester derivs. - useful as perfume ingredients giving melon like note

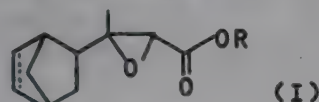
FIRMENICH SA 17.04.78-CH-004073

E13 (21.10.81) *EP--4-968 C07d-303/02 C11b-09 + A61k-07/46

17.04.79 as 101172 (922MR) (F) DE2163770 DE2617816 FR1416209 E(CH DE FR GB IT NL SE)

Norbornane and norbornene derivs. of formula (I): (where R is 1-4C alkyl and the dotted line represents an opt. double bond) are novel, with (m)ethyl 3-methyl-3- (norbornen-5-yl)-glycidate being specifically claimed.

They are prepd. by reacting acetyl norbornene with a 1-4C alkyl chloroacetate and opt. hydrogenating the prod. They have a fruity odour and are useful in perfumes. (6pp)



SAKB D23 14429 B/08 = GB 1601-300
 2-Cyclopentenone derivs. with jasmine smell - made by decarboxylation of 5-tert. butoxycarbonyl 4-methoxycarbonylmethyl-5-(cis-2-pentenyl)-2 cyclopentenone

OTSUKA KAGAKU YAKUHI 12.08.77-JP-097173

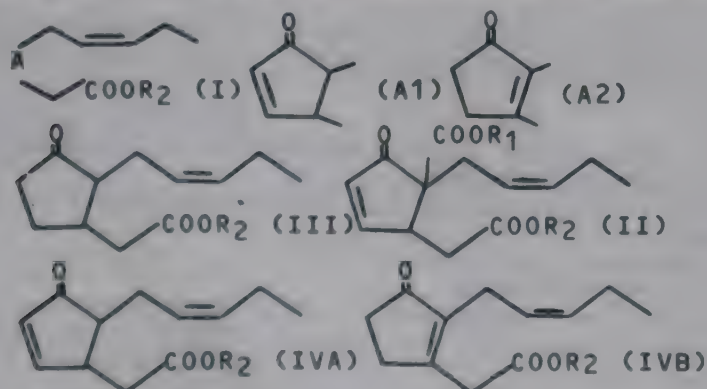
E15 (28.10.81) *DE2824-841 A61k-07/46 C07c-69/95

30.05.78 as 024475 (937TM)

2-Cyclopentenone derivs. of formula (I) are prepd. by decarboxylating 5-(cis-2-pentenyl)-2-cyclopentenone deriv. of formula (II). Pref. 5-(cis-2-pentenyl)-2-cyclopentenone deriv. is decarboxylated using acid catalyst pref. at least one of p-toluene sulphonic acid, benzene sulphonic acid, HCl, H2SO4, formic acid, acetic acid, BF3, AlCl3 or ZnCl2, to give 2-cyclopentenone deriv. of formula (III) alternatively 5-(cis-2-pentenyl)-2-cyclopentenone deriv. is decarboxylated using NaCl to prepare a mixt. of 2-cyclopentenone derivs. of formulae (IVa) and (IVb).

In the formulae A is gp. (A1) or (A2), R2 is opt. branched alkyl, alkenyl or aralkyl, R1 is 1-6C branched chain alkyl.

(I) have jasmine-like fragrance and are used in perfumes. (10pp)



CORP ★ D23 80385 D/44 ★ GB 2074-183
 Prepn. of high quality crude corn oil - by milling wet corn germs under controlled temp. and pH, then sepg. solid and liq. with leaching forces

CPC INTERNATIONAL INC 18.04.80-GB-012909

(28.10.81) C11b-01/10

10-24-80 as 012909 (172AT)

High quality crude corn oil (I) is prepd. as follows (a) wet corn germs obtd. from the corn wet milling process and of pH 3-4 are milled at not above 50 deg.C (until at least 80% of the germs are of particle size less than 160 microns and the germ cells are opened but the cell walls are otherwise intact) so that at least in the final stage of the milling sufficient additional H2O is present to give an aq. slurry contg. 10-25% by wt. solids; (b) the milling slurry (with additional H2O if necessary to give solids content not above 17%) is subjected to milling leaching forces to separate the slurry into a solid phase, and a liq. phase contg. all the oil and most of the protein; (c) the liq. phase is promptly sepd. and the oil is recovered.

Step (a). Milling is pref. until at least 90% of the germs are reduced to less than 160 microns. Step (b). Leaching force is pref. centrifugal of at least 100 g, and the device producing the force is one to keep liqs. and solids in an agitated state (e.g. solid bowl centrifuge). Leaching step is pref. repeated at least once. Step (c). Sepn. is pref. with a 3-way centrifuge.

Process has low energy requirements, requires no chemical addns., and gives a very high quality crude (I) which needs only mild refining to give a final edible (I). (7pp)

HENK D23 82775 C/47 = US 4294-727
 5-Alkyl-4,6-di-oxa-tri:cyclo-dodecene derivs. - used in perfume compns.

HENKEL KG AUF AKTIEN 05.05.79-DE-918168

E13 (13.10.81) *DE2918-168 C11b-09

21.04.80 as 142807 (931TM)

A perfumery compsn. comprises 1-50 wt.% of 1 or more tri-cyclododecene of formula (I), and other customary perfumery constituents to balance. In the formula, R is a 1-8C alkyl, 2-8C alkenyl or -alkynyl.

Pref. the other constituents comprise 1 or more other perfumes, and R is Me, Et, propyl or isopropyl. (I) is prepd. by the Diels-Alder reaction of cyclopentadiene with maleic and derivs to form an adduct, which may be reduced to the corresp. diol using LiAlH4, and the dioxepan by ring closure on acetalisation with aldehydes.

The compsn. is esp. used for the scenting of cosmetic cremes, lotions, aerosols, toilet soaps and technical compsns., e.g. washing and cleaning agents, disinfectants and textile cleaning agents. (3pp)



SOUT- ★ D23 81654 D/44 ★ US 4294-992
 Alkyl aryl ether prodn. from phenol cpds. - by reaction with alkanol and acid

SOUTHLAND CORP 23.01.80-US-114601

B05 E14 (13.10.81) C07c-43/20

23.01.80 as 114601 (367BZ)

Prodn. of alkyl aryl ethers is carried out by heating 100 pts.wt. of a phenol and adding an alkanol/acid mixt. at a rate of 0.133-0.90 pts. wt./min. while continuously removing by-produced water. The alkanol is pref. MeOH and the acid H2SO4. The H2SO4:MeOH vol. ratio is pref. 0.1-0.7:1. The reaction temp. is pref. 125-170 deg.C.

The process is esp. useful for preparing 2-methoxy-

I), which is useful as a synthetic orange blossom fragrance and as an intermediate for steroid synthesis (via 6-methoxytetralin). The process gives practically quantitative yields in short reaction times. (3pp)

See Also

GB1601350

D24: SOAP; SOAP DETERGENTS

See Also

D21 US4294728

D25: OTHER DETERGENTS

UNIL ★ D25 D/44 ★ BR 8102-075
Washing and bleaching of cloth
 UNILEVER NV 11.04.80-GB-012045 (11.04.80-GB-012042)
 E19 (13.10.81) C11d-07/54 D061-03/08

ZSCH- ★ D25 79870 D/44 ★ DE 3011-813
Lowering synthetic soap bar flooding - by adding group three or four metal salt of (in organic acid, pref. aluminium tri:formate
 ZSCHIMMER & SCHWARZ 27.03.80-DE-011813
 E12 (E32 E33) (22.10.81) C11d-17
 27.03.80 as 011813 (200RH)
 Mainly-to fully-synthetic soap bar properties are improved by adding up to 10 (esp 1-3) wt % w.r.t. soap wt., of Gp III and/or IV metal salts, (A), with inorganic and/or short-chain organic acids. The metals are esp Al, Zr and Ti. Pref (A) is Al formate, esp Al triformate.

(A)-addn lowers so-called flooding i.e. swelling in water to form a jelly-like slimy compsn., e.g. to 88-37% of initial value.

In an example asyndet soap bar was out of 40 pts 90% Na coconut fat alkyl sulphate, 10 pts tallow fat alcohol, 10 pts glycerol monostearate, 5 pts talcum, 30 pts starch, 4.8 pts water and 0.2 pts TiO₂. The addn of (i) 1%, (ii) 3% Al triformate lowered flooding from 34.4- to (i) 28.6-, (ii) 21.4%; pH (in 5% soln) from 8.6- to (i) 5.1, (ii) 4.6%; and wear from 14- to (i) 12.4- (ii) 11.3% at 20 deg C, and from 33.7- to (i) 35.9-, (ii) 33.3% at 37 deg C. (9pp)

BADI D25 89726 B/50 = DS 2960-483
Stabiliser and flow enhancer for zeolite slurry used in detergent mfr. - is aliphatic di:carboxylic acid or salt, effective at low concn.

BASF AG 03.06.78-DE-824443

E17 (22.10.81) *EP---5-789 C01b-33/28

22.05.79 as 960483 Based on EPG005789 (922NS)

A storage-stable flowable and pumpable aq. suspension contains 20-60% finely divided, water-insoluble sodium aluminium silicates and, as the stabiliser and flow improver, 0.5-15 wt.% (based on suspension) of a 3-10C (un)satd.) OH-free, aliphatic, dicarboxylic acid or its alkali metal salt.

The suspension, useful as a phosphate builder substitute in washing agents, is cheap and a slurry is stable for at least 24 hrs. (4pp)

BADI D25 09873 C/08 = DS 2960-486
Continuous N,N,N',N'-tetra:acetyl ethylene di:amine prepn. - by reacting excess ethylene di:amine with acetic anhydride in one step in bubble plate column, used as detergent cold bleach activator

BASF AG 21.07.78-DE-832021

E16 (22.10.81) *DE2832-021 C07c-102 C07c-103/90

18.07.79 as 960486 Based on EPG008389 (922AT)

N,N,N',N'-tetracetyl-ethylene diamine (I), a cold bleaching perborate washing agent activator, is continuously produced in a single stage and with minimal acetic anhydride (II) consumption by reacting ethylene diamine with an at least stoichiometric quantity of (II) at 120-190 deg. C in a distillation column, the water and acetic acid being distilled off as they are formed, recovering the (I) (which may contain (II)) at the bottom of the column and distilling under reduced pressure after sepg. off and recycling any (II) present. (4pp)

UGIN D25 27768 C/16 = EP G010-012
Dispersants for oil spills - comprising oxyalkylated phosphate tri:ester(s)

PROD CHIM UGINE KUHLMANN 29.09.78-FR-027894

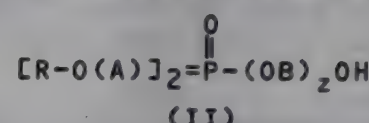
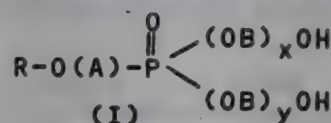
E11 H03 (21.10.81) *EP--10-012 B01f-17 C07f-09/09

04.09.79 as 400805 (922TM) (F) FR2022508 GB1081285 US3626035 E(BE DE FR GB IT NL SE)

Cleaning agents useful for dispersing hydrocarbons in seawater

comprise a (35-65:65-35 wt. ratio) mixture of (I) and (II): (where R is a (highly branched) 6-20C alcohol or acid radical, A is a mixt. of ethoxy and propoxy gps. in a ratio of less than 2 and in which the number of propoxy gps. is less than 10, there being 1-4 ethoxy gps. when R is has less than 12C, 1-10 gps. when R is 12-15C or 1-15 gps. when R is 16-20C, B is -CH(R')-CH₂- (in which R' is H or (m)ethyl) and x, y and z are each 1-4 with x + y + z divided by 3 being greater than 1).

They are used in amts. of 0.01-1 pt. wt. per pt. wt. hydrocarbon to be dispersed and, at these concns., are non-toxic to marine life. (I) and (II) are biodegradable and form stable dispersions. (10pp)



UNIL ★ D25 80078 D/44 ★ EP --38-099
Liq. bleaching and cleaning compsn. - contg. cleansing surfactant, chlorite and liq. base, activated by UV exposure

UNILEVER NV 11.04.80-GB-012048 (11.04.80-GB-012042)

E37 (21.10.81) C11d-03/39 C11d-07/54 C11d-17 D061-03/08

06.04.81 as 200384 (513AT) (E) DE2148590 DS1253397 BE-676238 GB1397595 US4033718 US3836475 DE2732214 FR2359927 GB1539017 DE-216321 E(AT BE CH DE FR GB IT LI NL SE)

Liq. bleaching and cleaning compsns. contains (i) 1-79.9 wt.% of a defersive surfactant with or without a detergency builder; (ii) 0.1-40 wt.% of a chlorite and (iii) at least ca. 20 wt.% of a liq. base. The compsn. has a pH of at least 6.0 when dispersed in water at a concn. of 0.5 g/l. The surfactant may be e.g. a soap, anionic, cationic, zwitterionic, semi-polar, amphoteric or non-ionic surfactant, or mixts. of these. The chlorite is an alkali(ne earth) or opt. substd. ammonium chlorite, esp. sodium chlorite. The compsn. may contain e.g. up to 40 wt.% of one or more builders and the ratio surfactant (with or without builder) to chlorite is greater than 1:1.

The prod. has the advantages of easy dispensing, rapid solubilisation and freedom from dust associated with liq. detergents, whilst giving satisfactory bleaching, soil breakdown, stain removal and germ killing action for use in the laundering of fabrics and for manual cleaning of dishes and general purpose cleaning of hard surfaces. The bleaching effect is obt'd. without the use of high cost chemical activators or high energy electron and gamma rays, as is required by some prior art compsns. The compsn. is activated by exposure to UV light before the chlorite is removed, e.g. by rinsing, from the substrate. Suitable irradiation is provided e.g. by bright sunlight. (16pp)

UNIL ★ D25 80079 D/44 ★ EP --38-100
Dishwashing machine compsn. - contg. builder, halite salt, alkaline material and surfactant

UNILEVER NV 11.04.80-GB-012050

E37 (21.10.81) C11d-03/39 C11d-07/54 D061-03/08

06.04.81 as 200386 (513AT) (E) DS1253397 BE-676238 DE2148590 GB1397595 US3836475 DE2732214 FR2359927 GB1539017 DE2216321 E(AT BE CH DE FR GB IT LI NL SE)

Machine dishwashing compsn. comprises (i) 1-99.5 wt.% of a builder; (ii) 0.5-60 wt.% of a material yielding halite ions in aq. medium; (iii) sufficient alkaline material to give the compsn. a pH of at least 7.0 when dispersed at 0.5 g/l in water; opt. (iv) up to 40 wt.% of a surfactant and opt. (v) up to 98.5 wt.% of a liq. base.

The builder (i) is e.g. water-soluble orthophosphates, pyrophosphates, tripolyphosphates, metaphosphates, polymetaphosphates etc. of alkali metals or hydrates of these. (ii) are chlorites (or bromites) of alkali(ne earth) metals of opt. substd. ammonium, esp. Na chlorite.

The compsns. may be liq. or solid and are stable on storage. The compsns. are used at a concn. of 0.5-10 g/l to give

dishwashing compsns. which are activated by exposure to UV, either before use or whilst in contact with the dishes. After activation, the compsn. have good stain removal, cleaning and germicidal action. (14pp)

UNIL ★ D25 80080 D/44 ★EP--38-101
Built liq. detergent contg. sodium tri:poly:phosphate - with anionic sulphonate or sulphate, alkali metal soap and non-ionic detergent

UNILEVER NV 09.04.80-GB-011744

A97 E34 (21.10.81) C11d-01/83 C11d-03/06 C11d-17

06.04.81 as 200387 (513AT) (E) US3684723 DE2743910 DE2819975 US4057506 FR2309629 GB1530799 E(AT BE CH DE FR GB IT LI NL SE)

Homogenous aq. liq. detergent compsn. comprises 22-35 wt.% Na tripolyphosphate and 6-15 wt.% of an active detergent mixt. comprising (a) a water-soluble anionic sulphonate or sulphate detergent; (b) an alkali metal soap of 12-18C fatty acids and (c) a nonionic detergent in a wt. ratio (a):(b):(c) of (5.5-8.5):(0.5-3):(1.5-3). The compsn. is a pourable liq. with a viscosity of 0.35-1.0 Pa s, esp. 0.5-0.8 Pa s at 20 deg.C and 21 sec. power -1 shear rate, and which remains stable after at least two 24 hour cycles of from -4 deg.C to ambient temp.

Pref. (a) is a 10-14C alkyl benzene sulphonate derived from alkylbenzenes with an av. mol.wt. of 225-245. (b) is pref. a potassium soap. (c) is pref. an ethylene oxide condensate or a fatty acid alkylolamide or mixts. of these. Pref. ethylene oxide condensates have an HLB value of 11-15.

The compsns. are stable liq. prods. with good laundering performance under manual or machine washing conditions, and remain stable for many months under ambient conditions without any sign of sepn. (10pp)

DIAS ★ D25 80238 D/44 ★GB 1601-123
Toilet cleaning blocks - contg. alkanol:amide carrier, polyoxyalkylene surfactant and di:ester binder-plasticiser

DIAM SHAM IND CHEM 25.07.77-GB-031153

A97 E16 (28.10.81) C11d-01/82 C11d-03/20 C11d-10/02 11.05.78 as ----- (367)

Cleaning compsns. for use as (or in the prodn. of) free-standing tablets or blocks in toilet or urinal cisterns comprise (a) 100 pts. wt. of a hydrophobic carrier comprising one or more fatty acid dialkanolamides (I) and one or more alkoxyated fatty acid monoalkanolamides (II) contg. 1-4 moles alkylene oxide, with a (I):(II) wt. ratio of 1:0.5-4 (pref. 1:0.5-2, esp. 1:1).

Compsns. also contain (b) 50-200 pts. of a hydrophilic surfactant comprising one or more ethylene oxide/propylene oxide copolymers (III) based on a polypropylene glycol (PPG) with a molecular wt. of at least 1000, where (III) contains at least 50 wt.% ethylene oxide and has a molecular wt. of at least 4000; and (c) 1-40 pts. wt. of a binder/plasticiser comprising one or more diesters of an aryl or aliphatic dicarboxylic acid with 1 or 2 monohydric aliphatic alcohols.

Compared with known compsns, the present compsns. can be prepd. by mixing at lower temps., are not as sensitive to variations in component ratios, and contain more efficient surfactants. (7pp)

PROC D25 18475 B/10 =GB 1601-350
Textile softening compsn. in form of aq. dispersion - contg. cationic surfactant and nonionic lubricant for fabrics

PROCTER & GAMBLE CO 30.05.77-GB-022739 (14.07.75-US-595632)

E19 F06 (28.10.81) *FR2393-100 D06m-13/36

30.05.78 as ----- Add to 1550205 (974TM)

Novel textile treatment compsns. are in the form of an aq. dispersion of which the disperse phase comprises a cationic surfactant (I) and a nonionic fabric lubricant (II).

(I) is e.g.

$R1.A.(CH2)n.N(R2)2 + (B.N(R2)2 + mR2.(m+1)X.$

where R1 is 8-22C alk(en)yl. A is O, COO, OCO, CONH, NHCO or C6H4. B is 2-6C polymethylene opt. interrupted by or bonded to an alicyclic or aromatic radical. Each R2 is H, 1-4C alkyl, 1-4C alkoxy, benzyl, (C2H4O)pH, (CH2CH2NH)pH or (CH2)3N(R6)2. p is 1-3. R6 is H, 1-4C alkyl, or (C2H4O)pH. X is an anion, n is 1-4, m is 0-6. (II) is e.g. an ester, having at least 16C, of a 12-24C fatty alcohol and a 1-8C mono- or poly-carboxylic acid. (11pp)

PROC ★ D25 80260 D/44 ★GB 1601-360
Compsn. contg. water insoluble cationic fabric softener - long chain hydrocarbon and opt. cationic surfactant

PROCTER & GAMBLE CO 08.03.78-GB-023034 (12.07.77-GB-029238)

E19 (28.10.81) D06m-13/36

12.07.77 as 029238 (1251AS)

Aq. textile treating compsn. comprises (a) a water-insoluble cationic fabric softener (I) and (b) a 12-40C hydrocarbon (II). Pref. (I) are of formula $R1R2R3R4NX$ and/or di(12-24C)

alkylimidazolium salts, and (II) are esp. 12-24C paraffins or olefins, partic. a mixt. of 14-18C paraffins. (R1 and R2 are 10-22C alkyl; R3 and R4 are 1-4C alkyl; X is an anion).

(I) and (II) pref. make up 15-40% of the compsn. and their wt. ratio is 5:1-1:3, esp. 1.25:1-1:3. Opt. the compsn. also contains a water-soluble cationic surfactant (III), partic. at wt. ratio (I):(II):(III) of 8-35:15-65:25-65.

Compsns. are stable and provide better softening than compsns. contg. (I) only when added during the rinse stage of a domestic laundering cycle. (II) are cheaper than nonionic materials previously proposed for use with (I). (11pp)

OSAS ★ D25 80894 D/44 ★J5 6120-500
Stabilised alkali chlorite aq. soln. - contg. water-soluble silicate e.g. sodium-, potassium- or ammonium silicate

OSAKA SODA KK 22.02.80-JP-021893

C03 E34 (21.09.81) C01b-11/10 C09k-03

22.02.80 as 021893 (55AS)

Stabilised alkali chlorite aq. soln. contains 0.01-10 wt.% water soluble silicate. Soln. is used for bleaching, pasteurisation, deodorising, antimould treatment etc. Corrosive action is reduced by addn. of silicate and stability is greatly improved.

Silicate is e.g. Na, K or NH4 silicate. The molar ratio of SiO2/Na2O of the alkali silicate is pref. 1-4 and the amt. to be added is pref. 0.05-15 wt.% on alkali silicate content. (3pp)

AECH= ★ D25 81255 D/44 ★SU-802-273
Alkyl-benzene-bis-ethanol sulphite ester salt - prepd. from corresp. diol and pyridine sulpho tri:oxide used as surface active agent

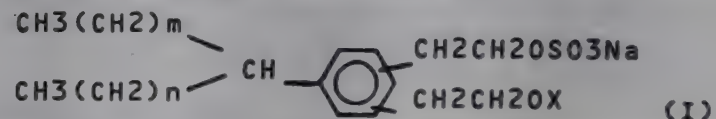
AS EST CHEM INST 04.12.78-SU-691633

E12 (09.02.81) C07c-141/02 C11d-01/12

04.12.79 as 691633 (1471VE)

Sec. alkyl-phenyl bis-(ethyl-2,2'-diol) sulphurous acid ester Na salt or diester salt is of formula (I) where X is H or SO3Na and m+n is 5, are described as new cpds. They are anionic surfactants and in wetting emulsifying and foaming compsns.

Cpds. (I) are synthesised by the reaction of a sec.-alkylphenyl bis(ethyl-2,2'-diol) with pyridine-sulphotrioxide in absolute acetone at 60 deg. C, with subsequent neutralisation of the sulphomass with aq. NaOH soln. (4pp)



AECH= ★ D25 81256 D/44 ★SU-802-273
Prepn. of sulpho-ethyl amino-di:acetate ester salt - by reacting alkyl chloro-acetate with sodium aminoethyl sulphonate, used as surfactant

AS EST CHEM INST 04.12.78-SU-692517

E12 (09.02.81) C07c-143/15 C11d-03/34

04.12.78 as 692517 (938GW)

N-(2-sulpho-ethyl)- amino-diacetic acid dialkyl ester sodium salt is of formula (I): $\text{NaO}_3\text{SCH}_2\text{CH}_2\text{N}-(\text{CH}_2\text{COOR})_2$ (where R is sec. 6-10C alkyl gp.) are surface active agents producing stable foam. These cpds. are prepd. by reacting corresp. chloro-acetic acid alkyl ester with 1.5-fold molar excess of amino-ethyl-sulphonate acid (taurine) sodium salt.

Pref., the reaction is conducted in an aq. medium in the presence of 2.5-5.0 wt. % (on starting ester) of emulsifying agent at b.pt. of the reaction mixt. Pref. emulsifier is dodecyl sulphoacetate or dodecyl benzene-sulphonate. The yield of pure diacetate is 80-85%. Bul.5/7.2.81. (4pp)

PROC D25 10185 D/07 =US 4294-710
Textile softening detergent compsn. - contg. surfactant, builder and tert. amine or imidazolidine deriv.

PROCTER & GAMBLE CO 05.07.79-GB-023527

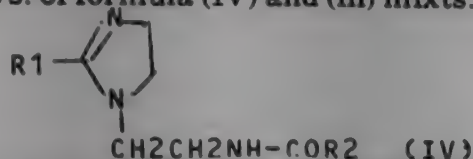
E19 (13.10.81) *EP--23-367 + D06m-11/04 D06m-13/36

30.06.80 as 164446 (963WB)

Prepn. of detergent compsn. adapted to have softening action when used to wash textiles comprises (a) forming a slurry contg. (i) an anionic surfactant (I) in amts. of 3-30% of compsn; and (ii) water-soluble alkaline detergency builder salt (II) in amts. of 10-80% of the compsn; (b) spray drying to give free-flowing granules; and (c) spraying the granules with a tert amine (III) in liq. form in amts. of 1-25 wt.% of compsn; (d) dry mixing oxygen bleaching agent or enzyme or silica/silicone suds suppressor or their mixts. with prod.

(I) is selected from Na and K 9-15C alkyl benzene sulphonates, 12-18C alkyl sulphates and 12-18C alkyl polyethoxy ether sulphates contg. 1-12 ethoxy gps. per mole and their mixts. (II) is selected from polyphosphonates, aminopolycarboxylates, amino polymethylene phosphonates and their mixts. Amine (III) is selected from (i) aliphatic

R2 are 10-26C alkyls or alkenyls and R3 is a gp. -CH₂-Ph, -C₂H₄OH, -CH₂-CH:CH₂, -C₃H₆OH, -CH₂CH₂CN, -CH₂CH₂COR₄, -CH₂CH₂CON(R₅)₂ or -CH₂CH₂CH₂N(R₆)₂ where R₄ is 1-4C alkyl; each R₅ is H or 1-4C alkyl and R₆ is H or 1-20C alkyl; and (ii) imidazoline derivs. of formula (IV) and (iii) mixts. of any of (i) and (ii). (9pp)



PROC D25 25867 D/15 = US 4294-711
Mixed nonionic and cationic detergent compsns. - contg. optical brightener in zwitterionic form

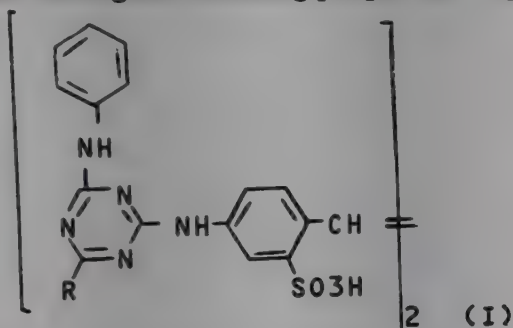
PROCTER & GAMBLE CO 21.09.79-GB-032918

E13 (13.10.81) *EP--26-013 C11d-03/42 + C11d-11 D06m-13/44
15.09.80 as 187371 (924AS)

Granular detergent compsn. for imparting soft feel to fabrics, comprises (a) 3-30 wt.% of a polyethoxy nonionic detergent having a hydrophilic-lipophilic balance of 8-15 and having not more than an average of 16 ethoxy units per molecule, (b) 1-15 wt.% of a cationic surfactant material, (c) 10-80 wt.% of a detergency builder, and (d) 0.001-3 wt.% of an acid optical brightener of formula (I).

In (I) R is methylamino or norpholino. Pref. builders are borates, carbonates, (poly)phosphates, polycarboxylates etc. Pref. cationic surfactant is 10-25C alkyl unidazolinium salt, 12-20C alkyl pyridinium salt, 12-20C alkyl morpholinium salt or substd. polyamino salt.

The compsns. have good cleaning properties. (9pp)



HOU1 D25 79469 B/44 = US 4294-717
Dry mixt. of alkylbenzene sulphonate and corresp. hydroperoxide - useful as detergent and bleaching components

CHIM DES CHARBONNAG 10.10.78-FR-028907 (14.04.78-FR-011082)

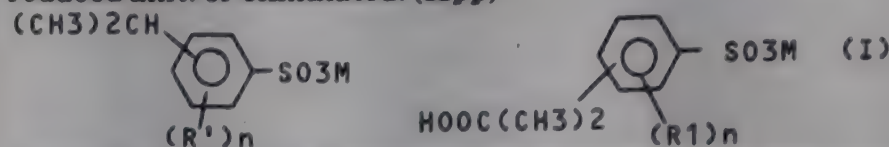
E12 (13.10.81) *EP--5-098 + C11d-07/54 C11d-09/42

16.04.79 as 030666 (924AS)

Solid, dry compsn. suitable for use as a bleaching agent in detergents comprises (a) at least one alkali metal alkylaryl sulphonate having formula (I), and (b) the hydroperoxide obtd. by hydroperoxidation of the alkali metal alkylaryl sulphonate and having formula (II).

In the formula M is alkali metal; R1 is lower alkyl; and n is 0,1,2,3 or 4. Pref. the compsn. further contains the alcohol resulting from the partial decomposition of the hydroperoxide.

The amt. of alcohol present is up to 30 wt.%. The compsns. have a softening effect which obviates the need to add a softening agent during rinsing. Na dodecylbenzene sulphonate is used in a reduced amt. or eliminated. (12pp)



COLG ★ D25 81568 D/44 ★ US 4294-718
Crutcher slurries for detergent base mfr. - contg. citrate and magnesium ion to prevent premature gelation

COLGATE PALMOLIVE CO 10.03.80-US-128574

E34 (E12 E17 E33) (13.10.81) C11d-03/04 C11d-07/14

10.03.80 as 128574 (955HM)

In the prepn. of a crutcher slurry contg. 40-70% solids and 60-30% water, of which the solids comprise 55-85% sodium bicarbonate, 5-25% sodium carbonate and 5-25% sodium silicate of Na₂O:SiO₂ ratio 1:1.4 to 1:3, the ratios of the components being bicarbonate:carbonate 2:1-8:1, carbonate:silicate 1:3-3:1, and bicarbonate:silicate 2:1-10:1, gelation is retarded or prevented by inclusion of 0.1-2% citric acid or a water soluble citrate, and 0.1-1.4% magnesium sulphate, the combination forming at least 0.1% of the mixt. Alternatively, 0.3-3% of Mg citrate or Mg acid citrate may be added.

The slurry is used to prepare base beads for use in nonionic surfactant detergent compsns. The citrate and Mg prevent premature gelation and setting, giving time for mixing and spray-drying. More concentrated slurries may be prepd. reducing drying costs. (7pp)

PIET/ D25 79208 C/45 = US 4294-771
Prod. of fatty acid soaps in granular form - by reaction with metal base in presence of small amt. of water

PIETRALLA N (CWMB) 04.04.79-DE-913592

E12 (13.10.81) *EP--17-827 C08h-17/36

27.03.80 as 134194 (931PW)

A granulate metal soap or soap mixt. is produced by reacting 1 or more 8-22C aliphatic carboxylic acid with 1 or more soap-forming metal oxide, hydroxide or carbonate, in the presence of water at an elevated temp., then removing the water. The process comprises heating a reaction mixt. contg. the carboxylic acid and the soap-former with 1-5 wt.% of water w.r.t. the carboxylic acid, to a temp. initiating soap formation. The reaction is allowed to proceed under built-up over pressure without further external heating, and the pressure is then removed. The water is then removed under reduced pressure and the prod. formed.

The prod. is formed without a high dust content, nor a dark colour. The prod. may be opt. coated with lubricants as a granulating additive in the same reactor after the water has been removed. (3pp)

See Also

D21 GB2074184

- * ABBO 13.06.79 ABBOTT LABORATORIES C03 D22 E16 H08 *US 4294-853
Biocides for cutting fluids - 81610D/44
- * ACES- 21.02.80 ACE SHTKUHN KK D11 *J5 6117-768
Preservable boiled noodle prodn. - 80430D/44
- ADIB/ 14.03.80 ADIBIS A B05 D13 = NL 8101-182
Nutritional soln. contg. di- or tri-peptide cpds. - 53481D/30
- * AECH= 04.12.78 AS EST CHEM INST D25 E12 *SU -802-272
Alkyl-benzene-bis-ethanol sulphite ester salt - 81255D/44
- * AECH= 04.12.78 AS EST CHEM INST D25 E12 *SU -802-273
Prepn. of sulpha-ethyl amino-di:acetate ester salt - 81256D/44
- AINS- 04.12.76 AIN SHOKUHN KK D13 = J8 1042-893
Cream base compsn. for confectionery - 54413A/30
- AIRP 18.01.78 AIR PRODUCTS & CHEM INC A81 D21 F04 (A14) = CA 1109-758
Moist packaged towlette contg. polyvinyl alcohol binder - 54938B/30
- AJIN 13.06.75 AJINOMOTO KK D16 E16 = J8 1042-595
Prod. of N: acetyl-S: alkylmercaptocysteine - 10074Y/06
- AJIN 08.03.76 AJINOMOTO KK D16 E17 = J8 1042-274
Mono-hydroxy-carboxylic acid prepn. - 75202Y/42
- AJIN 30.04.76 AJINOMOTO KK D17 E13 (D16 E17) = J8 1042-275
Prepn. of material for use in citric acid fermentation - 91056Y/51
- AJIN 26.07.77 AJINOMOTO KK B04 D16 = J8 1042-905
Fermentative prodn. of L-lactate dehydrogenase - 26874B/14
- AJIN 22.08.77 AJINOMOTO KK D16 = J8 1042-906
Proteolytic enzyme prepn. - 32370B/17
- AJIN 07.04.78 AJINOMOTO KK B04 C03 D16 = US 4294-754
Polypeptide antibiotic pelmycin A - 85087B/47
- AJIN 23.02.80 AJINOMOTO KK B05 D16 E16 = J5 6117-795
Prod. of L-glutamic acid - 46252D/26
- * AJIN 23.02.80 AJINOMOTO KK B04 D16 *J5 6118-672
Antigen or antibody measurement - 80626D/44
- ALFA 07.03.80 ALFA-LAVAL AB D13 = NL 8100-779
Valve to connect milking machine to milk manifold - 76264D/42
- ALFA 07.03.80 ALFA-LAVAL AB D13 = SE 8001-789
Valve to connect milking machine to milk manifold - 76264D/42
- * ALKU 17.05.79 AKZONA INC A11 D22 F07 *US 4294-731
Drying chemically modified starch or cellulose - 81565D/44
- * AMAN 19.02.80 AMANO PHARM KK B05 D16 *J5 6117-794
Coenzyme/Q prodn. - 80442D/44
- * AMAN 22.02.80 AMANO PHARM KK B04 D16 *J5 6118-671
Specific enzyme immunoassay of hybrid proteins - 80625D/44
- AMAN- 20.03.80 AMANN & SOHN D12 = FR 2478-433
Chamber for treating meat and delicatessen products - 55169D/31
- AMBA- 04.06.79 AMER INST BAKING D11 = US 4294-864
High ratio batter compsns. - 90680C/51
- AMSA 25.06.80 AMER STERILIZER CO D22 = US 4294-804
Gas sterilisation for biocidal treatment of goods - 82930C/47
- ARMA- 31.05.78 ARMAFILTEGYESULT D15 #GB 1601-380
Purificn. of esp. oil polluted water - 72835A/41
- * ASAE 30.06.77 ASAH DENKA KOGYO D15 (D23) *GB 1601-350
Purificn. of palm oil mill waste water - 80259D/44
- ASAH 15.10.79 ASAH KASEI KOGYO A14 D16 J01 (A88) = EP --37-836
Polyvinylidene fluoride resin hollow filament microfilter - 32558D/18
- * ASAH 22.02.80 ASAH CHEMICAL IND KK D13 *J5 6117-753
Drink based on milk - 80427D/44
- * ASAM- 16.02.80 ASAMA SHOKUHN KK D13 *J5 6117-787
Fried foodstuff contg. antioxidant - 80438D/44
- ASSU- 23.11.79 ASSUT SA A96 D22 F06 (A23) = NO 8102-511
Catgut suture filament - 44034D/24
- * ATZE/ 24.11.75 ATZENIA D16 *IT 1052-391
Herbal liquor prepn. - D/44
- BADI 04.11.74 BASF WYANDOTTE CORP A97 D25 E32 = IT 1052-158
Washing compsn for hot end coated glassware - 20395X/11
- BADI 03.06.78 BASF AG D25 E17 = DS 2960-483
Stabiliser and flow enhancer for zeolite slurry used in detergent mfr. - 89726B/50
- BADI 21.07.78 BASF AG D25 E16 = DS 2960-486
Continuous N,N,N',N'-tetra:acetyl ethylene di:amine prepn. - 09373C/06
- BADI 04.10.78 BASF AG A97 D18 = CA 1109-875
Tanning agents comprising aldehyde condensation products - 27480C/16
- BADI 11.04.80 BASF AG A87 D15 F06 = DE 3013-925
Polyacrylate, PVA or CMC size regenerating bath purificn. - 80041D/44
- * BADI 11.04.80 BASF AG A87 D15 F06 *EP --38-008
Polyacrylate, PVA or CMC size regenerating bath purificn. - 80041D/44
- * BALA/ 21.03.80 BALAZS E A A96 D21 E19 *FR 2478-468
Aq. compsn. contg. two sodium hyaluronate fractions - 80179D/44
- * BANS- 21.03.80 BANSS MASCHINENF KG D12 X25 *DE 3010-869
Pigs carcass singeing furnace - 79869D/44
- BATT 22.09.77 BATTELLE DEV CORP C03 D16 = CA 1109-785
Viral and bacterial microbial insecticide micro-granule - 23954B/13
- * BCRC 14.12.79 BRIT COLUMBIA RES D12 (D16) *J5 6085-239
Canned fish-contg. food prodn. - 80378D/44
- BEAU- 03.03.80 BEAUDREY E & CIE SA D15 = NL 8100-997
Filter for industrial waters - 51687D/29
- BEAU/ 26.12.79 BEAUVAIS M P D14 = US 4294-167
Preserving food in can with removable lid - 51922D/29
- BECI 01.07.76 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 (S05) = J8 1042-920
Kinetic enzymatic assay using oxygen analysers - 77618Y/44
- * BEGH- 19.06.80 BEGHIN-SAY SA D22 F07 *BE -889-261
Elastic fastening for baby's disposable pilch - 79777D/44
- * BEHR/ 09.04.73 BEHRENS U D16 E17 *DD -149-875
Biological prodn. of citric acid and iso:citric acid - 79831D/44
- * BENC 16.04.80 BENCKISER J A GMBH D16 E12 *DE 3014-503
Tri:calcium citrate continuous prodn. - 79904D/44
- * BENC 17.04.80 BENCKISER-KNAPSACK D11 *DE 3014-773
Durum- and soft wheat-contg. noodle improvement - 79929D/44
- BENC 17.04.80 BENCKISER-KNAPSACK D11 = GB 2074-005
Durum- and soft wheat-contg. noodle improvement - 79929D/44
- BERN/ 07.03.80 BERNHARDT S D12 = DD -149-916
Frozen meat slicing guillotine - 72029D/40
- BIOS- 26.12.79 BIOSPHERICS INC B04 D16 K08 = US 4294-931
Radio:respirometric assay device contg. labelled substrate - 50317D/28
- BISE- 08.03.80 BISEIBUTSU KAGAKU B03 D21 = NO 8100-778
Homo-citric acid oligo:riboside derivs. - 70147D/39
- BOFO 05.12.74 BOFORS AB B04 D16 S03 S05 = IT 1052-318
Polypeptide chromogenic substrates for serine proteases - 31921X/18
- BOLI 23.10.78 BOLIDEN AB D15 #US 4294-705
Purificn. of water with magnetic sepn. of pptd. sludge - 31595B/17
- BOLI 05.03.80 BOLIDEN AB D15 E37 = PT --72-522
Heavy metals removal from acidic aq. solns. - 73713D/40
- * BORK/ 10.03.78 BORKMANN K D16 *DD -149-868
Removing carbon di:oxide from large scale fermenters - 79825D/44
- * BOST/ 07.03.80 BOSTROM O D15 E17 *SE 8001-794
Bacteriological decomposition plant for fluid producing methane gas - D/44
- * BRAV/ 11.07.78 BRAVIKOV A M D15 *SU -802-190
Thermal deaerator - 81178D/44
- BRIM 20.02.80 BRISTOL MYERS CO A96 D22 G03 (A14) = FR 2478-461
Mixt. of liq. methyl methacrylate monomer - 62888D/35
- * BROW- 07.04.80 BROWN INT CORP D14 *BR 8102-039
Rotary fruit feeder for juice extractor - D/44
- * BRTA 18.06.80 BRIT AMER TOBACCO LTD A97 D18 J01 *BE -889-265
Tubular transverse circulation filter tip for cigarette etc. - 79780D/44
- CALG 16.08.79 CALGON CORP A97 D15 E11 = PT --71-647
Low molecular polymer and/or phosphonate scale inhibiting compsn. - 16003D/10
- * CAMP- 19.02.80 CAMPOMARZIO IMPIANT D18 (D15) *PT --72-536
Continuous recovery of trivalent chromium - D/44
- CANA 10.07.75 CANADIAN PAT & DEV LTD C03 D22 E32 F09 #J8 1042-442
Aq. wood preservative contg. arsenic - 17240Y/10
- CART- 04.02.80 CARTIER SA D13 = DK 8100-285
Automatic demoulding of soft paste cheeses such as camembert - 60786D/34
- CETU- 10.03.80 CETUS CORP B04 D16 = NO 8100-803
Prod. of predetermined protein - 72134D/40
- * CHAR/ 11.07.80 CHARRON G D12 *CA 1109-771
Toothed rollers machine for tenderising sliced meat and steak - 79801D/44
- CHEM 05.11.74 CHEM WERKE HULS AG D25 E12 (E34) = IT 1052-148
Cleaning powder compsn. with long lasting free flowing property - 26488X/15
- CHIN 28.02.80 CHINOIN GYOGYSZER A60 C03 D13 E13 (D21) #DD -149-902
2,2-Di:methyl-1,2-di:hydro-quinoline-4-yl methyl sulphonic acid - 48199C/28
- CIBA 29.02.80 CIBA GEIGY AG D25 E12 F06 = PT --72-587
Water-soluble aluminium or zinc phthalocyanine deriv. - 68330D/38
- CIST 29.01.80 CORNELIUS CO D15 = J5 6118-725
Water carbonating process - 58995D/33
- * CLEL/ 28.04.80 CLELAND M R A35 D22 K08 S03 *US 4295-048
Scanning charged particle beam by controlled deflection - 81668D/44
- COAL= 24.03.81 COAL IND ENVIRONMEN D16 #FR 2478-427
Microbiological recultivation of industrial refuse heaps - 53806D/30
- COKE 29.01.80 COCA-COLA CO D15 = J5 6118-725
Water carbonating process - 58995D/33
- COLG 12.12.74 COLGATE PALMOLIVE CO D22 = IT 1052-365
Disposable diaper with folded flexible sheet - 81152W/49
- COLG 12.12.74 COLGATE PALMOLIVE CO D22 = IT 1052-415
Disposable diaper combined with disposal bag - 01553X/01
- COLG 26.11.79 COLGATE PALMOLIVE CO D25 E12 J01 = FR 2478-481
Extracting oil from aq. detergents, esp. sodium lauryl sulphate - 25436D/15
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = DK 8100-338
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di:phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = DK 8100-425
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24

COLG

- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 (B02) = DK 8100-428
Anti-gingivitis oral compsn. - 47730D/26
- * COLG 10.03.80 COLGATE PALMOLIVE CO D25 E34 (E12 E17 E33) *US 4294-718
Crutcher slurries for detergent base mfr. - 81563D/44
- * COLO/ 06.09.77 COLOSIMO G A D12 *US 4293-979
Forming press for meat grinder outlet - 81455D/44
- COMM- 29.06.77 COMMONWORK ENTR LTD D16 = GB 1601-465
Anaerobic slurry digester with capping - 82444C/46
- COMS 24.03.80 COMMISS ENERGIE ATOMIQUE A96 D22 G03 (A21) = FR 2478-650
Cement compsn. for bonding bone prosthesis - 78112D/43
- * CONT- 23.05.78 CONTACT LENSES MFG A96 D22 E34 (E12 E16) *GB 1601-430
Cleaning of contact lenses - 80263D/44
- * CORO/ 19.06.78 CORONCOS J H D12 *US 4294-865
Preparing beef for cooking - 81617D/44
- CORP 05.02.80 CPC INTERNATIONAL INC A97 D16 (D17) = DK 8100-484
Prepn. of immobilised glucose isomerase - 60948D/34
- CORP 26.03.80 CPC INTERNATIONAL INC D17 = EP --38-130
Starch and protein recovery from starch bearing materials - 72356D/40
- * CORP 18.04.80 CPC INTERNATIONAL INC D23 *GB 2074-183
Prepn. of high quality crude corn oil - 80335D/44
- COUL/ 28.03.78 COULTHARD J L A97 D15 = US 4294-694
Biological filter substrate - 72267B/40
- * CTBC- 20.03.80 CTB CHAUDRON TUYAUT A97 D15 H03 J01 *FR 2478-663
Absorbent cpd. e.g. for hydrocarbon(s) - 80208D/44
- CTQC 11.03.77 CENT TECH DU CUIR D15 G04 (D18) = CA 1109-606
Cleaning media or surfaces contg. oils, fats or organic cpds. - 65283A/37
- DAAN- 31.01.80 DANSKE ANDELS KODFO C03 D13 = DK 8000-406
Mfg. powdered protein prods. from animal material - 60723D/34
- * DAIK 26.03.80 DAIKIN KOGYO CO LTD A96 D22 F06 (A14) *EP --37-939
Surgical multifilament suture with good slipping properties - 80009D/44
- * DAIL 21.02.80 DAICEL CHEM INDS LTD D11 *J5 6117-769
Noodle storage by treatment with sorbic acid suspension - 80431D/44
- DAIN- 08.03.74 DAINIHON SEIYAKU KK B02 D16 = J8 1042-279
Antibiotics (N)-methylhygromycin B and hygromycin B prepn. - 74592Y/42
- * DATA 25.02.80 DATA PACKAGING CORP D16 *US 4294-924
Container for growing anaerobic microorganisms - 81639D/44
- DCAF 02.04.80 DCA FOODS INDS INC D14 = GB 2074-082
Machine to remould ice lolly etc. on stick - 75743D/42
- * DEAK 19.10.78 AKAD WISSENSCHAFT DDR C03 D13 *DD -149-842
Protein contg. animal feed prodn. from activated sludge - 79806D/44
- * DEAK 15.12.78 AKAD WISSENSCHAFT DDR D16 T06 *DD -149-873
Controlling process for cultivating microorganisms - 79829D/44
- * DEAK 19.12.78 AKAD WISSENSCHAFT DDR D16 H04 *DD -149-869
Solvent removal from protein - 79826D/44
- * DEAK 04.07.79 AKAD WISSENSCHAFT DDR D16 H04 *DD -149-870
Sepp. liq. hydrocarbon medium from protein contg. fermenter effluent - 79827D/44
- * DEAK 06.07.79 AKAD WISSENSCHAFT DDR D16 H04 *DD -149-872
Protein prodn. by culturing bacteria on methane or natural gas - 79828D/44
- DEGS 27.12.78 DEUT GOLD AND SILBER D25 E33 = CA 1109-638
Continuous fine sodium aluminosilicate prodn. - 50004C/29
- DEGS 12.04.80 DEGUSSA AG B05 D21 E17 = DE 3014-165
3-Mercapto-propane-1,2-diol prepn. - 79994D/44
- * DEGS 12.04.80 DEGUSSA AG B05 D21 E17 *EP --37-891
3-Mercapto-propane-1,2-diol prepn. - 79994D/44
- DELA- 26.11.74 DELAGNES SA D13 (D16) = IT 1052-408
Ionization treatment of biological liqs. esp. drinks - 76225X/41
- * DENM- 15.04.77 DEN-MAT INC A96 D21 *US 4294-349
Kit for repairing damaged porcelain dental prosthesis - 81482D/44
- * DENO- 14.04.80 DE-NOL LABS PTY SA D22 *GB 2074-011
Diaper - 80279D/44
- * DESP 26.11.75 DESOTO INC D21 E16 *US 4294-855
Emollient bath beads contg. urea - 81611D/44
- * DIAS 25.07.77 DIAM SHAM IND CHEM A97 D25 E16 *GB 1601-123
Toilet cleaning blocks - 80238D/44
- * DMAT/ 02.04.80 DE MATTOS A R D16 E17 H06 *BR 8002-158
Continuous prodn. of brandy, industrial alcohol and/or motor fuel - D/44
- * DOWC 22.12.77 DOW CHEMICAL CO D15 *US 4294-589
Removing trapped gas under pond liners - 81511D/44
- * DOWC 20.09.81 DOW CHEMICAL CO D15 E34 *RD -210-014
Obtaining pure sodium chloride from holding pond - 81005D/44
- * DOWO 19.04.80 DOW CORNING CORP A96 D21 E11 (D25) *GB 2074-184
Liq. detergent compsns. esp. for shampoos - 80336D/44
- DRUY/ 26.04.77 DE RUYTER P W A D12 = CA 1109-722
Fibrous meat analog mfr. - 86039A/47
- * DURK/ 24.01.80 DURKEE R G D15 J01 M11 V04 *US 4294-434
Heavy metal removal from waste solns. - 81488D/44
- * EAUC- 03.04.80 L'EAU CLAIRE SYSTEM D15 *GB 2074-037
Filter bed for liq. - 80286D/44
- EBAI 08.08.74 EBARA INFILCO KK A91 D15 = J8 1042-331
Regeneration of condensation desalting appts - 23682X/13
- EBAI 10.01.75 EBARA INFILCO KK A97 D15 J01 = J8 1042-345
Aggregation of material from a suspension - 65851X/35
- EBAI 18.04.75 EBARA INFILCO KK D15 = J8 1042-355
Waste water treating process - 93200X/50
- EBAI 18.04.75 EBARA INFILCO KK D15 = J8 1042-356
Waste water treatment to remove nitrogen cpds. - 93201X/50
- EBAI 18.04.75 EBARA INFILCO KK D15 = J8 1042-357
Waste water treatment to remove phosphorus, nitrogen and organics - 93202X/50
- EBAI 18.04.75 EBARA INFILCO KK D15 = J8 1042-358
Ammonia removal from waste water - 93203X/50
- * EBAI 22.02.80 EBARA INFILCO KK D15 *J5 6118-794
Biologically treating sewage - 80672D/44
- * EGGI/ 20.09.81 EGGINK R D15 G06 J01 M25 *RD -210-021
Processing silver-contg. photographic effluents - 81008D/44
- EIBO/ 24.04.79 EIBOFNER E D22 = US 4294-797
Sprayable medical or dental instrument sterilising mixt. - 79057C/45
- ELIL 22.02.80 ELI LILLY & CO B03 D13 E13 = PT --72-540
Di:hydroxy:phenoxy:tetrazole derivs. - 66394D/37
- EMBL- 14.04.80 EMBL EURO LAB MOLEK B04 D16 = EP --37-931
Mfg. highly immunogenic detergent, and lipid-free sub-unit vaccines - 77974D/43
- ENIE- 01.02.80 ENI ENTE NAZ IDROCA D16 (D17) = DK 8005-570
Alpha-galacto:oxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- ESMI- 28.02.80 ESMIL BV D15 = NL 8001-198
Sludge scraping appts. for removing floating sludge - 72124D/40
- ESMI- 07.03.80 ESMIL BV D15 J01 = NL 8001-372
Flotation sepn. of flocculated solids in liquid - 70181D/39
- ESSO 10.03.80 EXXON RES & ENG CO A85 D15 J03 L03 (X16) = NL 8101-159
Electrochemical cells using non-selective membranes - 28954D/16
- ETHI 18.11.74 ETHICON INC D22 = IT 1052-197
Surgical needle-suture combination - 86179W/52
- ETHI 20.11.74 ETHICON INC A96 D22 = IT 1052-313
Needle and suture combination - 86499W/52
- ETHI 20.11.74 ETHICON INC A96 D22 = IT 1052-314
Sutures with fixed needles - 31561X/17
- ETHI 13.06.77 ETHICON INC A97 D22 F01 (A25) = GB 1601-503
Synthetic absorbable fibres for high strength sutures - 00314B/01
- ETHI 13.06.77 ETHICON INC A97 D22 F01 (A25) = GB 1601-504
Synthetic absorbable fibres for high strength sutures - 00314B/01
- EWOS 04.04.77 EWOS AB A14 C03 D14 (A97) = GB 1601-521
Acrylic polymers with pH dependent solubility - 72730A/41
- FABR 21.03.80 FABRE P SA D21 E12 = FR 2478-467
Anti:dandruff, anti:seborrhoea thio:salicylic acid metal salt compsn. - 76184D/42
- * FABR 04.04.80 FABRE P SA A96 B05 D21 E12 *EP --38-246
Zinc retinoate and its inclusion complexes - 80147D/44
- * FAHR/ 31.03.80 FAHR J D13 *DD -149-901
Raw lactic casein drying - 79837D/44
- FARB 19.11.74 BAYER AG B03 C02 D22 E13 (B02) = IT 1052-196
Microbicidal N-aryl-carbamate esters - 40363X/22
- FARB 24.12.76 BAYER AG B02 C02 D13 = US 4294-827
Penicillins and cephalosporins contg. pyrrolidone gp. - 59652A/33
- FARB 14.10.77 BAYER AG D15 F09 S03 S05 = US 4294-656
Measuring state of charge of suspensions - 31754B/17
- FARB 16.09.78 BAYER AG D15 J01 = DS 2960-489
Thin film contact dryer - 23908C/14
- FARB 23.02.79 BAYER AG B04 D16 = EP G015-388
Glycoside hydrolase inhibitor 1-deoxy-nojirimycin prodn. - 62657C/36
- FARB 11.07.79 BAYER AG D15 E37 = US 4294-703
Reducing chemical oxygen demand in waste water - 06150D/05
- FARH 05.12.74 HOECHST AG B05 C01 D25 E11 = IT 1052-487
Quaternary phosphonium halide prodn. - 46059X/25
- FARH 01.12.76 HOECHST AG A11 D12 (A25 A97) = CA 1109-724
Moulded objects, esp. packaging materials, including sausage skins - 38504A/22
- FARH 05.08.77 HOECHST AG A97 D12 (A11 A14) = DS 2860-840
Cellulose hydrate hose used as sausage skin - 33689B/18
- FARH 22.12.79 HOECHST AG C03 D22 E16 H01 = J5 6118-056
Antimicrobial poly:amine guanidinium salts - 50047D/28
- * FEPU 10.05.78 FERR METAL EFFL PURIF D15 *SU -802-199
Settler sediment collector and remover - 81187D/44
- * FEPU 17.08.78 FERR METAL EFFL PURIF D15 *SU -802-201
Liquid effluent settler cleaner - 81189D/44
- FERO 21.03.80 FERROSAN B03 D21 = FR 2478-636
2- or 3-alkyl 4-hydroxy-alkyl morpholine derivs. - 56987D/32
- * FINE- 21.03.80 FINEDOC SICA SA C03 D13 (C04 D16) *FR 2478-493
Using waste vegetable material as absorbent for liq. - 80182D/44
- FIRM 17.04.78 FIRMENICH SA D23 E13 = EP G004-968
3-Norbornyl-glycidate alkyl ester derivs. - 79412B/44

- FLET- 30.06.78 FLETCHER W & R NZ D12 = US 4293-980
Method and apparatus for washing animal bungs - 02229C/02
- * FMCC 14.04.80 FMC CORP D13 E37 *EP --37-887
Inhibiting growth of Clostridium botulinum in meat etc. - 79992D/44
- FRAU 03.04.80 FRAUNHOFER-GES FORD ANGE D22 = EP --37-944
Adsorption and catalytic decomposition of intestinal gases - 75973D/42
- FRLU- 04.11.74 FRANCE LUZERNE C03 D13 = IT 1052-147
Drying of lucerne by pressing - 39280X/21
- FRTW 15.09.77 FORTUNA-W MASCHFAB AG D18 = GB 1601-546
Hide splitting machine feed rolls - 26236B/14
- * FUJI- 10.04.80 FUJIZOKI PHARM KK A96 B04 D16 S03 (S05) *EP --38-150
Serodiagnostic method by reacting sample with immobilised antigen - 80111D/44
- FUKO 19.04.74 FUJI OIL KK D11 = J5 0135-297
Noodle constituent prepn. - 80954D/44
- * FUKO 19.04.74 FUJI OIL KK D11 *J8 1042-263
Noodle constituent prepn. - 80954D/44
- * FUKO 23.02.80 FUJI OIL KK D13 *J5 6117-776
Fried bean curd prepn. - 80434D/44
- GAUL- 29.01.80 GAULIN CORP D13 = DK 8001-955
Milk homogenisation between annular knife and valve seat - 66292D/37
- GENO 18.10.79 GENERAL FOODS CORP D13 #EP --37-810
Microporous soluble coffee of specified pore radius - 39997C/23
- * GENO 15.11.79 GENERAL FOODS CORP C03 D13 (D16) *J5 6085-255
Prod'n. of dog food having improved flavour - 80379D/44
- * GENO 10.04.80 GENERAL FOODS CORP D13 *GB 2074-006
Prepn. of microporous, dry, soluble coffee prod. - 80275D/44
- * GENO 10.04.80 GENERAL FOODS CORP D13 *GB 2074-007
Soluble coffee prod. having improved headspace aroma - 80276D/44
- * GENO 10.04.80 GENERAL FOODS CORP D13 *GB 2074-008
Microporous freeze dried coffee particles - 80277D/44
- GETP- 21.03.80 GETPLAST SARL D12 = FR 2478-436
Installation for storing, preserving and transforming meat prods. etc. - 76197D/42
- GILL 20.02.80 GILLETTE CO A96 D21 E14 (A21 E17) #J5 6118-971
Hair setting compsn. - 57238C/33
- * GMOL= 26.06.78 G MOSC LYUBLIN AERATION D15 *SU -802-200
Waste water sludge compactor - 81188D/44
- GOLD 27.11.74 GOLDSCHMIDT TH AG D13 E17 = IT 1052-349
Citrates of mono- or di- glycerides of fatty acids - 18863X/11
- GOLD 04.12.74 GOLDSCHMIDT TH AG D22 E15 = IT 1052-432
N-alkylated propylene diamine derivs. - 33987X/19
- * GORE/ 05.07.77 GORENBEIN A E D15 E36 *SU -802-191
Removing active chlorine from aq. waste soln. - 81179D/44
- GRAI 02.01.75 GRAIN PROCESSING CORP D13 = IT 1052-098
Extracting protein from vegetable material - 40035X/22
- * GREA- 22.04.80 GREAT WESTERN SUGAR D17 *GB 2074-187
Extn. of sugar from plant tissue esp. beet - 80339D/44
- GREC 22.02.80 GREEN CROSS CORP B04 D16 = J5 6118-018
Myelo:peroxidase isolation from human myelogenic leukocytes - 49988D/28
- GROT/ 18.12.79 GROTZ W D15 J02 #NL 7909-119
Agitator with shaft contg. holes - 41523C/24
- GYOG 13.11.78 GYOGYSZERKUTATO INT B04 D16 = US 4294-927
Genetic modification of antibiotic-producing Micromonospora strains - 38559C/22
- HAHG 20.12.78 HAHN C GMBH D22 = US 4294-253
sanitary tampon - 46411C/27
- * HAMM/ 14.04.80 HAMMERSCHMITT N D15 J01 *EP --37-855
Oil and water separator having two successive chambers - 79983D/44
- * HAMM/ 14.04.80 HAMMERSCHMITT N D15 J01 *EP --37-886
Oil and water separator has two successive chambers - 79991D/44
- HARV- 11.04.80 HARVARD COLLEGE B04 D16 = BR 8102-164
Synthesis of mature protein or polypeptide - 80125D/44
- * HARV- 11.04.80 HARVARD COLLEGE B04 D16 *EP --38-182
Synthesis of mature protein or polypeptide - 80125D/44
- HASB- 19.02.80 HASBRO INDS INC D21 = J5 6118-010
Readily water-emulsifiable oil phase cosmetic compsn. - 62827D/35
- * HAYB 21.02.80 HAYASHIBARA BIOCHEM D13 E33 *J5 6117-781
Sweet material mfd. - 80435D/44
- HENK 27.12.78 HENKEL KG AUF AKTIEN D25 E33 = CA 1109-638
Continuous fine sodium aluminosilicate prodn. - 50004C/29
- HENK 05.05.79 HENKEL KG AUF AKTIEN D23 E13 = US 4294-727
5-Alkyl-4,6-di-oxa-tri:cyclo-dodecene derivs. - 82775C/47
- HENK 11.02.80 HENKEL KG AUF AKTIEN A97 D25 E17 (A25) #DK 8000-577
Pourable nonionic surfactant compsn. prodn. - 22168C/13
- HERC 21.03.80 HERCULES INC D23 E19 #FR 2478-466
Perfume compsns. contg. oxime cpds. - 73449C/42
- HERR/ 29.05.78 HERRMANN W D15 J01 = US 4294-699
Demineralising filter using disposable cartridge of ion exchange resin - 27803C/16
- * HETO 14.07.78 HETEROORG CPDS AS USSR A11 B04 D13 (A96 A97)
*SU -802-290
Prepn. of carboxylated chitosan deriv. - 81269D/44
- HITA 22.03.79 HITACHI KK D15 X25 = US 4294-697
Purification of waste water - 69997C/40
- HITJ 19.03.75 HITACHI ENGINEERING KK D15 E36 J01 = J8 1042-359
Treatment of smoke-washed waste water - 85702X/46
- HOFF 30.01.80 HOFFMANN-LA ROCHE AG B03 C02 D16 = DK 8100-298
Antibiotics X-14868 A, B, C and D from Nocardia sp. ATCC 31585 - 56870D/31
- HOFF 08.02.80 HOFFMANN-LA ROCHE AG B04 D16 S03 (S05) = DK 8100-514
Sample pretreatment for carcinoembryonic antigen assay - 62609D/35
- HONS 01.01.76 YAKUCT HONSHA KK D13 (D16) = J8 1042-250
Fermented milk prod. esp. for baby food - 18205Y/11
- HORN/ 19.04.80 HORN W E B05 D21 #GB 2074-025
Compsn. for forming protective film on teeth - 60390C/34
- HOU1 14.04.78 CHIM DES CHARBONNAG D25 E12 = US 4294-717
Dry mixt. of alkylbenzene sulphonate and corresp. hydroperoxide - 79469B/44
- HUBE 08.11.74 HUBER J M CORP D25 E33 J01 = IT 1052-170
Alkali metal aluminosilicate with detergent props mfr. - 26505X/15
- IBPI- 05.03.80 IBP IND BUITONI PER D13 = NL 8006-115
Foodstuffs contg. cheese and tomato - 19388D/12
- ICIL 15.03.77 IMPERIAL CHEM INDS LTD D15 J01 = CA 1109-804
Removing oil from oil-in-water emulsion - 80253D/44
- * ICIL 15.03.77 IMPERIAL CHEM INDS LTD D15 J01 *GB 1601-339
Removing oil from oil-in-water emulsion - 80253D/44
- ICIL 09.08.77 IMPERIAL CHEM INDS LTD D16 (D13) = CA 1109-816
Industrial aerobic fermentation - 11897B/07
- ICIL 22.10.77 IMPERIAL CHEM INDS LTD D25 E19 F06 = CA 1109-610
Concentrate of quaternary ammonium cpd. and oily material - 31587B/17
- ICIL 01.11.77 ICI AUSTRALIA LTD C03 D13 = CA 1109-793
Chemically hardened animal feed blocks - 37609B/20
- ICIL 22.02.80 IMPERIAL CHEM INDS LTD A23 C03 D16 G02 (C04 D13) #J5 6117-793
Prepn. of poly-3-hydroxybutyric acid - 68171C/39
- ICIL 07.03.80 IMPERIAL CHEM INDS LTD C03 D16 (D13) = NO 8100-773
Glutamate dehydrogenase gene contg. microorganism - 70190D/39
- IHAR 16.08.74 IHARA CHEM IND D15 E11 = J8 1042-352
Bulking prevention in activated sludge water treatment - 25681X/14
- IHAR 11.06.75 IHARA CHEM IND B05 C03 D13 = J8 1042-586
Chlorosulphonyl benzoyl chloride prepn. - 01379Y/01
- IIDA/ 07.08.76 IIDA T D15 J08 = J5 3020-153
Heat-conductive tube for desalination plant - 80981D/44
- * IIDA/ 07.08.76 IIDA T D15 J08 *J8 1042-822
Heat-conductive tube for desalination plant - 80981D/44
- * INAG/ 22.02.80 INAGAT D15 J04 *J5 6118-668
Determination of oxidisable substances - 80623D/44
- INFL 07.08.73 INT FLAVORS & FRAGR INC D13 E13 = IT 1052-132
Thiafuran and furanthiol flavouring agents for food - 14727W/09
- * INFL 20.10.78 INT FLAVORS & FRAGR INC D13 E15 *US 4294-708
Enhancing aroma of fabric softener or optical brightener compsns. - 81559D/44
- * INFL 13.09.79 INT FLAVORS & FRAGR INC D18 E13 *US 4294-266
Flavouring tobacco with 1,4-benzodioxan-2-one - 81474D/44
- * INFL 21.12.79 INT FLAVORS & FRAGR INC D13 E15 *US 4294-863
Enhancing or augmenting the aroma or taste of guava foodstuffs - 81616D/44
- * INOZ 25.02.80 INOUE JAPAX RES INC A96 D21 *J5 6118-009
High strength dental cement - 80454D/44
- INRG 07.01.72 INST NAT RECH AGRON D13 = IT 1052-123
Cheese-making process - 39749U/28
- INSF 11.03.77 INST FRANCAIS DU PETROLE D15 G04 (D18) = CA 1109-606
Cleaning media or surfaces contg. oils, fats or organic cpds. - 65283A/37
- * INSP 24.03.80 INST PASTEUR B04 D16 S03 (S05) *FR 2478-470
Immunological agents - 80180D/44
- * INSP 22.04.80 INST PASTEUR B04 C03 D16 *BE -888-430
Aerobic bacterial fractions, esp. Corynebacterium catarrhalis - 79765D/44
- INTE- 20.03.80 INTERCYLINDER AB D15 (D14) = FR 2478-435
Domestic beverage aerator - 76316D/42
- IOWA 13.11.79 IOWA STATE UNIV RES INC B04 C03 D16 = PT --72-045
Vaccine contg. specific antigenic protein - 38502D/22
- * IRKU 28.05.79 IRKUTSK ZHDANOV UNIV C03 D16 *SU -802-361
Selective culturing of entomopathogenic fungi - 81326D/44
- ITAF 28.02.80 ITALFARMACO A11 B04 D16 (A96) = NL 8100-728
Polysaccharide copolymer with enzymatic activity prodn. - 66258D/37
- ITDI- 25.11.77 INT DIAGNOSTIC TECH A96 B04 D16 J04 (S03 S05) = US 4294-817
Surface immunoassay with two different test surfaces - 42821B/23
- * IZAW/ 21.02.80 IZAWA G A83 C03 D22 *J5 6118-712
Deodorising sheet e.g. for shoe insole - 80638D/44

JAAT 08.10.75 JAPAN ATOMIC ENERGY RES A96 B04 D16 (D13) = J8 1042-269

Fixing enzymes or organisms at low temp. - 37369Y/21

*JAAT 18.02.80 JAPAN ATOMIC ENERGY RES A96 D16 *J5 6117-792
Fixing bio:active substance in polymer matrix - 80441D/44

*JANC 04.02.80 JANSSEN PHARMACEUT NV A60 C02 D22 F09 (F06) *EP --38-109

Preservative for coatings, wood, organic substrates etc. - 80086D/44

JENO- 04.03.80 JENOS INC D11 = NL 8101-057

Non-docked fried dough crusts prodn. - 68433D/38

JOHJ 25.10.67 JOHNSON & JOHNSON B05 D21 = IT 1052-282

Anti-acne compositions contg vitamin a acid - 38101F/00

*JOHJ 01.11.73 JOHNSON & JOHNSON B05 D21 *US 4294-852

Aq. skin-treating compsns. - 81609D/44

JOHJ 26.11.74 JOHNSON & JOHNSON D21 = IT 1052-386

Flavoured dental articles for teeth cleaning - 24123X/13

JOHJ 22.03.78 JOHNSON & JOHNSON A94 D22 F04 (A96) #GB 1601-170

Water absorbent and retentive matted fibre material - 75430B/42

*JOHN- 18.01.80 JOHNSON CONS CO AB D15 *SE 8000-430

Aerating water - 81022D/44

*JOHS 15.12.80 JOHNSON S C & SONS INC D22 E17 (E16) *US 4294-821

Compsn. for absorbing odours from air - 81600D/44

KALI 13.03.80 KALI-CHEMIE AG C03 D13 E36 (C04) = NL 8006-691

De-fluoridation of phosphoric acid - 40229D/23

KALI 22.03.80 KALI-CHEMIE PHARMA B05 D23 E11 (D13 D21) = FR 2478-643

Purifying lecithin by extn. with gas under hyper critical conditions - 53458D/30

KALI 22.03.80 KALI-CHEMIE PHARMA B05 D23 E11 (D13 D21) = PT --72-478

Purifying lecithin by extn. with gas under hyper critical conditions - 53458D/30

KANF 26.10.76 KANEGAFUCHI KAGAKU B05 D16 = J8 1042-912

Coenzyme/Q prepn. by aerobic yeast fermentation - 32465A/18

KANF 03.12.76 KANEGAFUCHI CHEM KK B05 D16 = J8 1042-914

D-(-)-N-carbamoyl-2-(substd. phenyl) glycine cpds. prodn. - 54424A/30

KANF 25.08.77 KANEGAFUCHI CHEM KK A97 B04 D16 = CA 1109-862

Purification of macromycin antitumour antibiotic - 18537B/10

*KAOS 19.06.80 KAO SOAP KK A11 D22 F02 *BE -889-277

Composite twisted threads with high water absorption - 79784D/44

KAYA 21.02.74 KAYAKU KOSEIBUSHITS B02 D16 = J8 1042-277

Isopropyl-dioxo-diaza-bicyclononane prepn. - 84043W/51

*KBEN= 19.03.76 KUIB ENG-CONS INST D15 X25 *SU -802-193

General purpose electrochemical cleaner for water - 81181D/44

KEEF/ 28.03.77 KEEFER B G D15 J01 = GB 1601-518

Reverse osmosis device for water purificn. - 73104A/41

KEEF/ 28.03.77 KEEFER B G D15 J01 = GB 1601-519

Reverse osmosis device for water purificn. - 73104A/41

KEMI- 13.10.76 KEMI-INTRESSEN AB D16 J04 S03 = CA 1109-693

Laboratory mixing and dilution of liquids, in metering syringe - 28770A/16

KERJ 30.03.77 KERNFORSCHUNGS JULICH D15 J01 = GB 1601-138

Harmful oxidisable material oxidn. in aq. solns. - 72990A/41

KIMB 11.04.80 KIMBERLY CLARK CORP D22 = BR 8102-138

Sanitary napkin with impermeable baffle below pad - 78235D/43

*KIND/ 31.03.80 KINDER D D18 E24 *DD -149-947

Pattern dyeing of chrome leather - 79855D/44

KLEI/ 01.02.80 KLEIN J A96 B04 D16 #DK 8000-442

Enzymatically active bio:catalyst prodn. - 27354C/16

*KLEI/ 07.03.80 KLEINPENNING W D14 *NL 8001-404

Filter for coffee etc. - 80989D/44

*KOBAYASHI M D16 *BR 8001-421

Large-scale cultivation and reproduction of photosynthetic bacteria - D/44

*KOEI- 23.02.80 KOEI YAKUHI KOGYO D22 *J5 6118-499

Removing deposits in urine bowl - 80616D/44

*KORY- 22.02.80 KORYU KOGYO KK D12 E34 *J5 6117-783

Treatment of pigs stomach and intestines - 80436D/44

*KOSU/ 26.02.80 KOSU K Y D18 F08 *J5 6118-500

Mfg. regenerated leather from waste natural leather - 80617D/44

*KROT/ 28.09.77 KROTOV D1 D15 J01 *SU -802-198

General purpose liquids settler - 81186D/44

*KRUN 21.04.80 KRAFTWERK UNION AG D15 *DE 3015-254

Solar heat powered desalination system - 79964D/44

KUNZ/ 28.03.79 KUNZE M B04 D16 = DD -149-871

Bacteraemia detection appts. - 73874C/42

KUNZ/ 28.06.79 KUNZE M B04 D16 = DD -149-843

Bacteraemia detection appts. - 73874C/42

*KURK 22.02.80 KURITA WATER IND KK A97 D15 *J5 6118-798

Dehydration agent for waste sludge - 80673D/44

KURS 09.09.74 KURARAY KK A96 B04 D16 (A14 A17) = J8 1042-268

Fixed enzyme prepn. - 33120X/18

KYOW 28.09.74 KYOWA HAKKO KOGYO K B04 D16 = J8 1042-278

Antibiotic aminoglycosides prodn. - 37035X/20

LABA 17.04.78 LABATT J LTD D17 = CA 1109-723

Dry, odourless, tasteless vital gluten prepn. - 79336B/44

*LEDE- 31.03.80 VEB LEDERFAB STADT D18 *DD -149-940

Cleaning animal pelts process - 79849D/44

*LEGU/ 11.04.80 LEGUEU P D11 *EP --38-250

Mobile bread bakery for army unit etc. in remote areas - 80150D/44

*LETS/ 07.02.78 LETS KIKH E S D15 E31 J03 *SU -802-195

REmoving hexa:valent chromium cpds. from waste water - 81183D/44

LIND/ 28.12.79 LINDE H D11 = DD -149-841

Thin filled wafer mfr. - 66264D/37

*LIOC 23.02.80 LION DENTIFRICE KK D21 (D16) *J5 6118-012

Oral compsn e.g. tooth-paste, mouth-wash etc. - 80456D/44

*LIOY 16.02.80 LION DENTIFRICE KK D13 *J5 6117-787

Fried foodstuff contg. antioxidant - 80438D/44

*LIOY 23.02.80 LION CORP D21 (D16) *J5 6118-012

Oral compsn e.g. tooth-paste, mouth-wash etc. - 80456D/44

LIPP/ 05.04.80 LIPP X D16 E17 = DE 3013-421

Fermenting vessel for methane prodn. has rotary agitator shaft - 58798D/33

LOHM 22.11.74 LOHMANN & CO GMBH D22 F07 = IT 1052-357

Textile medical compress partic. for abdominal surgery - 30220X/17

*LYUB/ 23.06.76 LYUBELYA A E D15 *SU -802-189

Vacuum deaerator for superheated water - 81177D/44

*MARC/ 16.04.80 MARCHADOUR J C D12 *EP --38-261

Measuring device for sausage meat - 80153D/44

MARL 22.12.75 MARION LABS INC D16 = J5 2079-075

Package for transporting and storing anaerobic cultures - 47244Y/27

MARL 22.12.75 MARION LABS INC D16 = J8 1042-903

Package for transporting and storing anaerobic cultures - 47244Y/27

*MARU- 23.02.80 MARUNIKK D11 *J5 6117-770

Antiseptic for boiled noodles - 80432D/44

*MASZ- 31.03.80 INST MASZYN SPOZYWC D12 *DD -149-900

Machine for sepg. meat from bones or juice from fruit etc. - 79836D/44

MATS/ 15.11.77 MATSUEDA K B05 D16 = J8 1042-600

Neosporin antibiotics - 55083B/30

*MEIJ 22.02.80 MEIJI SEIKA KAISHA B04 C03 D16 *J5 6118-094

Antibiotic SF-2111 - 80504D/44

MERE 17.03.73 MERCK PATENT GMBH D21 G01 = J8 1042-634

Mica-Berlin blue pigment prodn. - 68116V/39

MERI 19.08.77 MERCK & CO INC B02 D16 = EP G000-932

(N)-Acyl-thienamycin cpds. prepn. - 09813B/05

MERI 12.10.77 MERCK & CO INC B02 C02 D18 E13 (D13 D21) = EP G001-887

2-Carbonylamino-5-tri:chloro-vinyl-imidazo-(1,2-a -pyridine(s) 37528B/20

*MERI 15.06.79 MERCK & CO INC B03 C02 D16 *US 4294-926

Prepn. of antifungal etc. lactone designated MSD-803 - 81640D/44

MERI 04.09.79 MERCK & CO INC B04 D16 = PT --71-739

Propagation of Hepatitis A virus in vitro - 23886D/14

*MERI 21.09.79 MERCK & CO INC B03 D16 *US 4294-846

Lactone fermentation prod. - 81606D/44

*MERI 14.04.80 MERCK & CO INC B04 C03 D16 *EP --38-265

Vaccine of gp. B streptococcal capsular polysaccharide(s) - 80154D/44

*METG 09.04.80 METALLGESELLSCHAFT AG D15 *DE 3013-541

Sludge removal from sewage settling tank bottom - 79877D/44

METT 26.04.78 M & T CHEMICALS INC A41 D15 E11 F06 = CA 1109-889

Tri:alkoxy-silane cpds. - 75330B/42

MICH/ 18.02.77 MICHAELI D B03 C02 D22 = GB 1601-249

Medicaments for desensitising flea bites - 62157A/35

*MICR= 24.07.79 MICROBIOL PLANT PRO B04 C03 D13 *SU -802-360

Determn. of antibiotic grisin in fodder additives - 81325D/44

MILE 22.08.79 MILES LABORATORIES INC D16 = US 4294-930

Recovering long chain microorganisms from culture broth - 36748D/21

*MILE 16.04.80 MILES LABORATORIES INC D13 (D16) *EP --37-999

Prepn. of low cholesterol casein - 80037D/44

MINN 02.01.75 MINNESOTA MINING CO A82 D18 F06 G02 (A25 A26)

= IT 1052-096

Stable aq dispersion of poly(urethane-urea) with silyl end-gps - 20604X/11

*MINN 14.07.77 MINNESOTA MINING CO A96 D22 *US 4294-240

Padding material for orthopaedic appliances - 81471D/44

*MITD 20.02.80 MITSUI SEITO KK D17 (D16) *J5 6117-796

Sugar compsn. mfr. - 80443D/44

MITG 14.03.74 MITSUI MINING & SMELTING A35 D13 (A13 A17) = J8

1042-335

Polypropylene and polystyrene sepn. from sea weed culture screens - 74613Y/42

MITK 22.01.76 MITSUI TOATSU CHEM INC B05 D16 = J8 1042-276

Coenzyme Q7 prepd. from yeast of genus Hansenula - 64164Y/36

MITO 26.01.76 MITSUBISHI HEAVY IND KK D16 E17 = J5 2090-651

Orange peel fermentation - 80955D/44

*MITO 26.01.76 MITSUBISHI HEAVY IND KK D16 E17 *J8 1042-272

Orange peel fermentation - 80955D/44

MITO 07.05.76 MITSUBISHI HEAVY IND KK D16 E17 H09 (D13) = J8 1042-353

Orange peel treatment before methane-forming fermentation - 91102Y/51

* MITO 06.03.79 MITSUBISHI JUKOGYO D13 *US 4294-861

Separation of pulp and juice from citrus fruits - 81615D/44

* MITO 25.02.80 MITSUBISHI HEAVY IND KK D15 E36 M12 *J5 6118-784

Treating dilute soln. contg. metal halide - 80669D/44

* MITO 25.02.80 MITSUBISHI HEAVY IND KK D15 J03 M14 *J5 6118-786

Treating waste acidic soln. contg. metal ions - 80670D/44

* MITP 25.02.80 MITSUBISHI PETROCH KK D22 J01 *J5 6118-702

Treatment of ion exchange membrane for electrolysis - 80628D/44

* MITP 25.02.80 MITSUBISHI PETROCH KK D15 J01 *J5 6118-703

Removing scale from ion exchange membrane - 80629D/44

* MITQ 21.02.80 MITSUBISHI ELECTRIC CORP D22 E36 J01 *J5 6118-715

Deodorising gas by scrubbing with acidic and then with alkaline soln. - 80641D/44

* MITQ 22.02.80 MITSUBISHI ELECTRIC CORP D15 *J5 6118-799

Concentrating waste organic sludge - 80674D/44

MITR 05.09.74 MITSUBISHI RAYON KK D15 E19 F09 = J8 1042-342

Water treating agent for selective heavy metals removal - 32540X/18

* MITS- 25.02.80 MITSUBISHI YUKA ENG KK D15 J01 *J5 6118-703

Removing scale from ion exchange membrane - 80629D/44

MITU 04.09.75 MITSUBISHI CHEM IND KK A97 D16 = J8 1042-265

Promoting multiplication of fine algae in a culture medium - 28162Y/16

* MIYA/ 09.06.77 MIYATA T A96 B04 D22 (B07) *US 4294-241

Collagen wound dressing prepn. - 81472D/44

* MODE/ 10.04.80 MODERSOHN E D11 X25 *EP --37-972

Packaged bread pasteurisation - 80021D/44

* MOEN= 26.06.78 MOSC ENG-CONS INST D15 *SU -802-200

Waste water sludge compactor - 81188D/44

MOPO= 20.04.78 MOSCOW POWER INST D15 J09 #GB 1601-382

Thermal disposal of effluents - 86099B/48

MORG 27.03.76 MORINAGA MILK KK B04 D16 = J8 1042-271

Prod. of antitumour substance - 80622Y/45

MORG 10.06.76 MORINAGA MILK KK B04 D16 = J8 1042-264

Bifidus powder contg. lactulose - 09345A/05

* MOUL/ 27.03.80 MOULE R E D12 *US 4294-858

Mfr. of self-surfaced meat product - 81613D/44

MULL- 09.11.74 MULLER V A & CO D13 = IT 1052-142

Food contg. powdered water-insoluble component - 38471X/21

NAMA- 29.08.75 NAT MARINE SERVICE D15 H03 J01 S02 = CA 1109-807
Gravitational separator for immiscible liqs. of different densities - 16779Y/10

NATR 13.02.80 NATIONAL RES DEV CORP C03 D16 #US 4294-037

Vesicular-arbuscular mycorrhizal fungi prodn. - 64633C/37

NEST 06.02.80 SOC PROD NESTLE SA D13 = DE 3047-477

Treating extracts of roasted prods. other than coffee - 66425D/37

NEST 12.03.80 SOC PROD NESTLE SA D13 = GB 2074-083

Moulding composite confection on ice cream etc. - 67971D/38

NEST 12.03.80 SOC PROD NESTLE SA D13 = SE 8101-120

Moulding composite confection on ice cream etc. - 67971D/38

* NICH- 21.02.80 NIPPON CHEM RES KK D13 E33 *J5 6117-781

Sweet material mfd. - 80435D/44

NISB 28.02.77 JAPAN TOBACCO & SALT PUB D18 E15 = J8 1042-897

Tobacco or tobacco substitute contg. 2-hydroxy beta-ionone - 77268A/43

NISB 28.02.77 JAPAN TOBACCO & SALT PUB D18 E15 (D16) = J8 1042-898

Prepn. of tobacco perfume - 77269A/43

NISB 28.02.77 JAPAN TOBACCO & SALT PUB D16 E15 (D18) = J8 1042-909

2-Hydroxy-beta-ionone prodn. for improving tobacco taste and flavour - 77261A/43

NISB 23.05.77 JAPAN TOBACCO & SALT PUB D18 = J8 1042-899

Improving flavour of Stevia plant extract for use in tobacco - 09085B/05

NISB 23.05.77 JAPAN TOBACCO & SALT PUB D18 E16 = J8 1042-900

Improving flavour of Stevia plant extract for use in tobacco - 09086B/05

NISB 23.05.77 JAPAN TOBACCO & SALT PUB D18 E19 = J8 1042-901

Improving flavour of Stevia plant extract for use in tobacco - 09087B/05

NISB 20.10.77 JAPAN TOBACCO & SALT PUB A97 D18 = J8 1042-902

Binder for reformed tobacco leaves - 46519B/25

NISS 28.08.78 NISSHIN FLOUR MILL KK D11 = CA 1109-727

Bread making dough - 21489C/12

NISS 24.08.79 NISSHIN FLOUR MILL KK D11 E13 #CA 1109-726

Mfg. bread having good texture and uniform structure - 15838C/09

* NISW 21.02.80 NISSHIN OIL MILLS KK D12 *J5 6117-759

Artificial fish meat-flake prodn. - 80428D/44

NMHB 18.07.79 NORDISCH MASCH R BAADER D12 #CA 1109-615

Fish gutting machine - 79186B/44

NMHB 01.02.80 NORDISCHER MASCHINE D12 = DK 8002-853

Fish positioning device for heading - 55390D/31

NMHB 12.03.80 NORDISCH MASCH R BAADER D12 #NO 8000-707

Double fish fillet skinning machine - 44299D/25

* NOVO 11.03.80 NOVO INDUSTRI A/S D17 (D16) *GB 2074-167

Saccharification of starch hydrolysates - 80325D/44

NYBL- 07.06.78 NY BLOOD CENT INC B04 D16 = EP G005-864

Subparticulate mass contg. hepatitis B surface antigen - 89757B/50

NYUY- 18.03.80 NEW YORK UNIVERSITY D17 E13 = BR 8101-561

Conversion of waste cellulose to glucose - 79999D/44

* NYUY- 18.03.80 NEW YORK UNIV D17 E13 *EP --37-912

Conversion of waste cellulose to glucose - 79999D/44

OREA 17.02.71 L'OREAL SA D21 E17 (D24) = US 4294-728

Improved foaming compsns - 56180T/35

OREA 24.06.77 L'OREAL SA D21 E13 = GB 1601-187

Dye compsns. for keratin fibres esp. hair - 06301B/04

OREA 19.08.77 L'OREAL SA D21 E14 (E12) = CA 1109-798

Hair colouring compsn. contg. direct colourants - 14188B/08

OREA 18.03.80 L'OREAL SA A96 D21 = FR 2478-465

Two/phase compsn. for skin or hair - 70355D/39

OREA 24.03.80 L'OREAL SA A96 B05 D21 E19 = FR 2478-485

Stable oil-in-water emulsion - 72303D/40

* OREA 17.04.80 L'OREAL SA D21 E14 *BE -888-454

N-n-oxidative hair dyeing - 79769D/44

ORIY 14.05.77 ORIENTAL YEAST KK B02 D16 = J8 1042-915

NADP prepn. from NAD and ATP using fixed bacterial body - 06833B/04

ORIY 14.05.77 ORIENTAL YEAST KK B02 D16 = J8 1042-916

Enzymatic NADP prepn. from NAD and ATP - 06834B/04

ORIY 05.09.77 ORIENTAL YEAST KK D11 = J8 1042-887

High quality bread mfr. - 36013B/19

OSAG 16.05.79 OSAKA GAS KK D15 = US 4294-706

Treating effluent water contg. ammonia - 47522C/27

* OSAS 22.02.80 OSAKA SODA KK C03 D25 E34 *J5 6120-506

Stabilised alkali chlorite aq. soln. - 80894D/44

* PALE 21.05.63 PALE TAB D12 *IT 1052-103

Rotating device for sausages packaging - D/44

PEGA- 18.02.80 PEGASUS PENSION FUN D16 = PT --72-461

Producing plants inoculated with symbiotic mycorrhiza - 68273D/38

* PENN 14.04.80 PENN WALT CORP A96 D21 *GB 2074-180

Dental cavity varnish compsn. - 80333D/44

* PERF- 05.03.80 PERFORA ROSSE H A/S D13 *NL 8101-071

Cheese prodn. unit comprising battery moulds - 80995D/44

PERS 23.05.77 PERSONAL PRODUCTS CO A96 D22 = CA 1109-602

Sanitary pad contg. perfume avoiding perfume migration - 86106A/48

PHAR- 30.12.75 LAB PHARMEDICAL SA B05 D13 E14 = IT 1052-047

Aspartyl (hydroxy)phenyl-alanine dipeptides prepn. - 50607Y/29

* PICH/ 09.04.80 PICHAT P D15 L02 *EP --38-235

Treatment of acidic waste water - 80142D/44

PIET/ 04.04.79 PIETRALLA N D25 E12 = US 4294-771

Prod. of fatty acid soaps in granular form - 79208C/45

* PLAN= 03.05.79 PLANTS PROTECT RES C03 D16 *SU -802-362

Growing spores of insecticidal fungus Entomophthora thaxteriana - 81327D/44

* PREF- 06.03.79 PREF ECONOMIC FED AGRIC D13 *US 4294-861

Separation of pulp and juice from citrus fruits - 81615D/44

PRIP- 15.02.80 PRIPS BRIGELIAR AB D13 = J5 6117-786

Drink for supplying water and carbohydrate(s) during exercise - D/40

PROC 25.06.68 PROCTER & GAMBLE CO B05 D21 E12 = IT 1052-109

Stannous polyphosphonates useful in fluo- - 37397S/22

PROC 11.05.73 PROCTER & GAMBLE CO D25 = DK 8101-280

Detergent compsn contg. aluminosilicate ion exchanger - 82595V/48

PROC 11.05.73 PROCTER & GAMBLE CO D25 = DK 8101-281

Detergent compsn contg. aluminosilicate ion exchanger - 82595V/48

PROC 08.11.74 PROCTER & GAMBLE CO D25 E33 = IT 1052-287

Free flowing, spray dried detergent - 38459X/21

PROC 19.11.74 PROCTER & GAMBLE CO A96 D22 F07 = IT 1052-325

Disposable diaper with absorbent pad - 35648X/19

PROC 04.12.74 PROCTER & GAMBLE CO D13 = IT 1052-489

Bright extractable ground roasted coffee flakes - 46431X/25

PROC 02.01.75 PROCTER GAMBLE EURO D25 E19 = IT 1052-092

Liq. household cleanser - 54530X/29

PROC 14.07.75 PROCTER & GAMBLE CO D25 E19 F06 = GB 1601-359

Textile softening compsn. in form of aq. dispersion - 18475B/10

PROC 29.06.77 PROCTER & GAMBLE CO A97 D25 E19 (A25) = CA 1109-754

Laundry detergent compsn. for removing stains - 44573B/24

PROC 29.06.77 PROCTER & GAMBLE CO A97 D25 E19 (A25) = CA 1109-755

Laundry detergent compsns. - 28869D/16

PROC 29.06.77 PROCTER & GAMBLE CO A97 D25 E19 (A25) = CA 1109-759

Anionic, nonionic and quat. ammonium surfactant contg. liq. detergent - 02338B/02

* PROC 12.07.77 PROCTER & GAMBLE CO D25 E19 *GB 1601-360

Compsn. contg. water insoluble cationic fabric softener - 80260D/44

PROC 29.11.77 PROCTER & GAMBLE CO A97 D25 E34 = CA 1109-752

Detergent tablet contg. core of alkaline builder - 44369B/24

PROC 23.12.77 PROCTER & GAMBLE CO D25 E14 (E16) = CA 1109-753

Storage stable detergent compsn. - 11590C/07

PROC 13.03.78 PROCTER & GAMBLE CO A97 D25 E19 = CA 1109-757

Low phosphate laundry detergent compsn. - 68460B/38

- PROC 09.08.78 PROCTER & GAMBLE CO D25 = CA 1109-762
Agglomerated granular detergent compns. - 44958C/25
- PROC 05.07.79 PROCTER & GAMBLE CO D25 E19 = US 4294-710
Textile softening detergent compn. - 10185D/07
- PROC 21.09.79 PROCTER & GAMBLE CO D25 E13 = US 4294-711
Mixed nonionic and cationic detergent compns. - 25867D/15
- *PROT= 15.12.78 PROTEINS BIOSYNTH D16 T06 *DD-149-873
Controlling process for cultivating microorganisms - 79829D/44
- *PROT= 19.12.78 PROTEINS BIOSYNTH D16 H04 *DD-149-869
Solvent removal from protein - 79826D/44
- *PROT= 04.07.79 PROTEINS BIOSYNTH D16 H04 *DD-149-870
Sepp. liq. hydrocarbon medium from protein contg. fermenter effluent - 79827D/44
- *PROT= 06.07.79 PROTEINS BIOSYNTH D16 H04 *DD-149-872
Protein prodn. by culturing bacteria on methane or natural gas - 79828D/44
- *RALS 05.12.79 RALSTON PURINA CO C03 D13 *US 4294-857
Dog food compsn. contg. proteinaceous and farinaceous material - 81612D/44
- RANG 14.05.70 RANK HOVIS MCDUGAL LTD C03 D16 (D13) = US 4294-929
Edible proteins produced using non-toxic microorganisms - 74880S/47
- *REDH/ 10.07.80 REDHEAD W K D13 *US 4294-168
Insertable article for altering cure rate and chemical compsn. - 81468D/44
- REGC 27.05.77 UNIV OF CALIFORNIA B04 D16 = CA 1109-813
Plasmid contg. gene from a higher organism - 70827A/40
- *REIC/ 21.04.80 REICHEL D D16 (D13) *DE 3015-261
Pollen extract for flavouring drinks - 79965D/44
- *REIM- 17.04.80 REIMELT D KG D11 J02 *DE 3014-741
Liquid esp. liquid fat admixed with powder - 79926D/44
- RENJ 05.01.77 RENGOKK A92 D13 E36 (A17) = J8 1042-888
Maintaining freshness of vegetables and fruit - 62769A/35
- RHEE 04.11.77 RHEEM MFG CO D12 = CA 1109-728
Stuffing horn assembly with separate horns - 21796B/11
- RHON 31.12.74 RHONE-POULENC TEXT D18 F02 = IT 1052-066
Making cigarette filters from multifilaments - 54542X/29
- RHON 24.01.77 RHONE-POULENC INDUSTRIES A97 D13 E23 (A12 D16) = CA 1109-865
Purificn. of aq. anthocyanin solns. - 55429A/31
- RHON 29.01.80 RHONE-POULENC AGROC A97 C01 D16 = DK 8100-375
Phosalone insecticide compsn. contg. thickener and surfactant - 59059D/33
- RHON 21.03.80 RHONE-POULENC INDUSTRIES D13 = FR 2478-434
Compsn. for preparing instant desserts - 76177D/42
- RHON 24.03.80 RHONE-POULENC INDUSTRIES D11 = FR 2478-431
Powdered compsn. contg. sucro-glyceride, caseinate and malto:dextrin - 78111D/43
- RIAT- 18.02.80 RIAT D18 = PT --72-514
Perforated drum contg. skins for soaking in liq. - 64388D/36
- RICT 08.02.80 RICHTER GEDEON VEGY B02 D16 = DK 8100-525
Fermentative prodn. of ergot alkaloid(s) - 60440D/34
- *RISC- 21.08.80 RICERC SCI TECH ALI D13 E13 *US 4294-767
2,5-Di:alkyl-4-hydroxy-3(2H)-furanone(s) prodn. - 81579D/44
- ROHG 28.04.79 ROHM GMBH D18 = US 4294-087
Simultaneous swelling and unhairing of hides - 82713C/47
- *ROHG 11.04.80 ROHM GMBH A97 D18 (A14) *GB 2074-173
Polymer soln. or dispersion for treating pelts and leather - 80329D/44
- *ROMA/ 09.08.78 ROMANOV A E D15 J01 X25 *SU -802-197
Magnetic separator for liquids treatment - 81185D/44
- *ROTH/ 07.11.77 ROTHEN D12 *US 4294-860
Refrigerating meat paste to prevent bacterial growth - 81614D/44
- ROUS 01.02.80 ROUSSEL UCLAF B04 D13 = DK 8100-426
Phospho:peptide prodn. from caseinate - 62670D/35
- ROUS 01.02.80 ROUSSEL UCLAF B04 D16 = DK 8100-427
Recovering peptide and phospho-peptide from casein materials - 60791D/34
- *SACO- 19.06.78 SACO TANNING KIRSTE D18 E31 *EP --38-105
Conversion of tri:valent chromium in ash to hexa:valent chromium - 80082D/44
- *SACO- 19.06.78 SACO TANNING KIRSTE D18 E31 *EP --38-106
Reclaiming chromium from roasted ash hexa:valent chromium - 80083D/44
- SAKA 30.06.77 OTSUKA PHARM KK B02 D16 = GB 1601-479
Deca:hydro-naphthalene-spiro-benzofuran derivs. - 84059A/47
- SAKB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 = GB 1601-300
2-Cyclopentenone derivs. with jasmine smell - 14429B/08
- SANY 20.05.74 SANYO CHEM IND LTD D16 = J8 1042-267
fructan hydrolase prodn. - 16436A/09
- SAPB 25.10.76 SAPPORO BREWERIES B05 D16 E16 = J8 1042-918
Glutathione prodn. from yeasts - 44947A/25
- *SARS 28.03.80 SARTORIUS GMBH D16 *DE 3012-085
Fluid sterility test container - 79871D/44
- *SAXZ- 16.07.80 SAX ZZYX LTD D16 J01 *US 4294-664
Latent heat recirculating system from condenser - 81543D/44
- SCHD 17.01.80 SCHERING AG B02 D16 = J5 6118-078
Kijanimicin from Actinomadura kijaniata ATCC 31588 - 62579D/35
- SCHD 10.04.80 SCHERING AG D15 = EP --38-017
Waste water aeration in equaliser and storage basins - 77951D/43
- *SCHM/ 19.02.80 SCHMITT W D13 *DE 3006-092
Aromatising dried tea-leaves - 79864D/44
- *SCHO/ 31.03.80 SCHOPP W B04 D16 *DD-149-874
3-Hydroxy-butyrate dehydrogenase prodn. - 79830D/44
- SCHR- 24.03.80 SCHREIBER-KLARANLAG D15 X25 = FR 2478-617
Purificn. of activated sludge waste water mixt. - 72333D/40
- SCLA 28.08.74 SCHWARTZ LAB INC D22 E11 = IT 1052-139
Aminoalkylene silanes useful as antimicrobial agents - 05616X/04
- SEAR/ 12.10.76 SEARS B D B05 D13 E11 = CA 1109-814
Phosphatide onium cpds. - 31504A/17
- SEIW 17.01.75 SEITZ WERKE GMBH D16 J01 S03 T06 = IT 1052-467
Determination of the inversion point of liq mixts after filtration - 40032X/22
- *SEIW- 22.02.80 SEIWA KASEI KK A96 D21 *J5 6118-011
Hair setting compsn. - 80455D/44
- *SHIE 14.04.80 SHINETSU CHEM IND KK C03 D13 E17 *EP --38-052
Pheromone cis-alkenyl acetate prepn. - 80057D/44
- *SHIE 14.04.80 SHINETSU CHEM IND KK C03 D13 E16 *EP --38-053
Pheromone and flavour intermediate cis-nonenyl-6 chloride prepn. - 80058D/44
- *SHIF 23.02.80 SHINMEIWA IND KK D15 J01 *J5 6118-708
Filter for sepp. suspended solids - 80634D/44
- SHIS 08.06.78 SHISEIDO KK A96 D21 E17 G02 (A11 A25 A82) = CA 1109-763
Thixotropic nail varnish with stable viscosity - 91322B/51
- SHOW- 25.02.77 SHOWA SEKIYU KK D16 E17 H04 = J8 1042-910
Citric acid prepn. from high olefin(s) - 75352A/42
- SHOW- 25.02.77 SHOWA SEKIYU KK D16 E17 H04 = J8 1042-911
Fermentative prepn. of citric acid from crude olefin - 75353A/42
- SIGE 02.02.74 SIGRI ELEKTROGRAPHI GMBH D15 E36 J03 X25 = J8 1042-675
Passive metal electrode for electrochemical cells - 40967W/25
- SIMC 15.04.78 SIMON ENGINEERING LTD C03 D15 (D13) = DS 2960-474
Removal of metallic impurities from sewage sludge - 79430B/44
- SIMO- 01.10.79 SIMON-JOHNSON INC D12 = US 4293-978
Dead poultry handling system - 28420D/16
- SMIT/ 23.04.79 SMITH R E B04 D16 = US 4294-923
Fluorometric or spectrophotometric determ. of enzymes - 79329C/45
- *SMIT/ 24.09.79 SMITH C M D12 *US 4293-981
Crab cleaning appts. removes carapace - 81456D/44
- SNOW 20.11.74 SNOW BRAND MILK PRODUCTS D16 = J8 1042-266
Lipase having strong glyceride and ester productivity - 53247X/28
- SNOW 25.07.79 SNOW BRAND MILK PRODUCTS D13 J08 = US 4294-018
Distributor for band type vacuum dryer - 14041D/09
- SOEP/ 05.02.80 SOE-PEDERSEN A D14 = DK 8000-480
Regulation of feedstuff pellet press - 66037D/36
- SOPL- 08.11.74 SOPLARIL SA A92 D14 = IT 1052-165
Film and dish food pack with an oxygenated atmosphere - 33958X/19
- *SOUT- 23.01.80 SOUTHLAND CORP B05 D23 E14 *US 4294-992
Alkyl aryl ether prodn. from phenol cpds. - 81654D/44
- *SQUI 15.01.79 SQUIBB E & SONS INC B05 D21 *US 4294-894
Transparent tooth paste compsns. - 81630D/44
- *STEE/ 17.06.81 STEEMANS W R D14 X27 *BE -889-253
Stirring unit for preparing rice-milk etc. - 79774D/44
- *STEI 19.04.80 STEINECKER A MASCH GMBH D22 E19 *DE 3015-220
Odorous substance removal from effluent air - 79958D/44
- STEM/ 28.03.80 STEMLER M A97 D12 E17 (D23) = DE 3012-192
Protective pigmented meat-coating compsns. - 76085D/42
- *STWE 17.04.80 STONE & WEBSTER ENG CORP D16 E17 *GB 2074-036
Alcohol and distillers grains prodn. - 80285D/44
- SUMO 21.01.74 SUMITOMO CHEMICAL KK D15 = J8 1042-360
Regenerating ion-exchange resins after activated sludge treatment - 36840Y/21
- SUMO 09.03.76 SUMITOMO CHEMICAL KK B05 D16 = J8 1042-579
Anti-ulcer protease-inhibitor - 76529Y/43
- SUMO 10.03.76 SUMITOMO CHEMICAL KK B05 C03 D16 = J8 1042-580
Protease-inhibiting substance S-114 - 76526Y/43
- *TAIY- 25.02.80 TAIYO KORYO KK A96 D21 *J5 6118-729
Emulsifier for water-in-oil emulsion - 80654D/44
- TAJI/ 05.10.77 TAJIMA T B04 D16 = J8 1042-917
Erythropoietin hormone prepn. - 44949B/24
- *TAKA/ 19.02.80 TAKAGIT D16 *J5 6117-790
Sake prepn. free of koji odour - 80439D/44
- TAKE 08.12.72 TAKEDA CHEMICAL IND KK B02 C02 D13 = CA 1109-860
Cephalosporins in lactol form - 45338V/25
- TAKE 08.04.74 TAKEDA CHEMICAL IND KK D13 = J5 0132-139
Powdered foodstuff prodn. by mixing polysaccharide - 80953D/44
- *TAKE 08.04.74 TAKEDA CHEMICAL IND KK D13 *J8 1042-252
Powdered foodstuff prodn. by mixing polysaccharide - 80953D/44
- TAKE 25.02.80 TAKEDA CHEMICAL IND KK A81 D15 J01 = J5 6118-734
Adsorbent material is thermoset resin contg. hydrated ferrite - 64652D/36

- TAKE/ 19.08.77 TAKEUCHI S D11 = US 4294-166
Bread prodn. in kneading and baking oven - 16291B/09
- TANA 24.07.74 TANABE SEIYAKU KK D13 E16 = J8 1042-640
Antioxidants for oils and fats - 21480X/12
- *TEAR- 22.04.80 TEA RES FOUND CEN A D13 (D16) *GB 2074-004
Fermentation of green tea - 80274D/44
- TECD 14.03.78 TECHNICON INSTR COR A89 D16 J04 S03 (S05) = CA 1109-815
Carbohydrate enzyme substrate immobilisation on carrier e.g. alumina - 72069B/40
- *TECN- 11.04.80 TECNALSA D13 S03 *EP --38-254
Automatic control of butter of cheese curd mfr. - 80151D/44
- TEEP 07.04.80 TEEPAK INC A97 D12 = BR 8102-087
Viscose coating of tubular fibrous sausage casing - 78073D/43
- *TENN/ 19.09.80 TENNANT J L A96 D22 *BE -888-392
Plastic lens unit for intra-ocular implantation - 79764D/44
- TEPR- 24.03.80 TEPRAL CENTRE RECH D16 S03 = FR 2478-818
Measuring colloidal stability of nutritional liquids - 78309D/43
- *TEVA- 27.03.80 TEVA PHARM IND LTD B05 D13 S03 (D16) *EP --37-932
Rapid detection of antibacterial agents in food etc. - 80007D/44
- THOM 28.06.79 THOMAE K GMBH B04 D16 = DE 3014-814
Cell culture on solid surfaces - 04146D/04
- *THOM 19.04.80 THOMAE K GMBH B02 D13 E13 *DE 3015-113
Sweetening agent benzothiazole derivs. - 79950D/44
- *THOM/ 26.05.78 THOMSON A R D16 *GB 1601-155
Protease recovery from fluids, esp. plant juices - 80241D/44
- TIEL- 28.02.80 TIELEMAN BV D12 = NL 8001-202
Cutting vent of bird suspended from conveyor - 02405D/03
- TILL/ 30.05.78 TILLIE E L D15 H03 = FR 2478-699
Pollution control using binders - 03913C/03
- TOCO- 23.02.80 TOYO CONTACT LENS D22 E36 = J5 6119-113
Removing adherent contamination from contact lenses - 72382D/40
- *TOHO- 23.02.80 TOHOKU DENRYOKU KK D15 E31 J04 *J5 6118-666
Removing iron component from reagent for determining total iron - 80622D/44
- TOKA- 04.01.77 TOKAI REGIONAL FISH C03 D13 (D16) #US 4294-856
Synthetic feed for suckling animals - 13699X/08
- TOKU 26.01.76 TOKUYAMA SODA KK D16 E17 (D13) = J8 1042-273
(L)-Tartaric acid prepn. from Nocardia tartarican ES3-T - 64162Y/36
- TORB/ 24.03.80 TORBERGER F D15 = FR 2478-616
Desalination by sepg. water vapour from liq. - 75707D/41
- *TOXO 20.02.80 TOYO SEIKAN KAISHA D12 *J5 6117-784
Salt resistant spherical coagulated food granules prepn. - 80437D/44
- *TOXO 21.02.80 TOYO SEIKAN KAISHA D12 *J5 6117-765
Edible spheres contain polysaccharide, - 80429D/44
- *TOXO 22.02.80 TOYO SEIKAN KAISHA D12 E34 *J5 6117-783
Treatment of pigs stomach and intestines - 80436D/44
- TOYF 04.02.77 TOYO RUBBER IND KK A97 B04 D16 (D17) = J8 1042-908
Fixing enzymes in hydrophilic polyurethane - 71596A/40
- TOYJ 23.02.76 TOYO SODA MFG KK D15 E33 = J8 1042-322
Flocculant contg. alumina - 78615Y/44
- *TRIO- 21.03.80 TRIO ENGINEERING D12 *FR 2478-432
Machine to grade fish according to size - 80178D/44
- *UEDA- 21.02.80 UEDA SEIYU KK D13 *J5 6117-771
Frying battery improving agent prodn. - 80433D/44
- UGIN 29.09.78 PROD CHIM UGINE KUHLMANN D25 E11 H03 = EP G010-012
Dispersants for oil spills - 27768C/16
- UHDE 13.03.80 UHDE F GMBH C03 D13 E36 (C04) = NL 8006-691
De-fluoridation of phosphoric acid - 40229D/23
- UKSO- 01.03.78 UK SEC SOCIAL SERV B04 D16 = EP G003-916
Sepn. of leukocytosis producing factor haemagglutinin prepn. - 65022B/36
- UNIC 22.03.77 UNION CARBIDE CORP A97 D12 (A11) = CA 1109-725
Articles mfr. from collagen, esp. sausage wrapping - 68906A/39
- UNIC 13.03.80 UNION CARBIDE CORP D12 = NL 8101-211
Large dia. tubular cellulosic food casing - 71769D/40
- UNIC 13.03.80 UNION CARBIDE CORP D12 = NO 8100-829
Large dia. tubular cellulosic food casing - 71769D/40
- UNIC 13.03.80 UNION CARBIDE CORP D12 = SE 8101-504
Large dia. tubular cellulosic food casing - 71769D/40
- *UNIE- 28.02.80 UNIE VAN KUNSTMESTF C03 D15 (D13) *NL 8001-214
Poultry manure suspended in water is aerobically fermented - 80984D/44
- UNIL 30.03.77 UNILEVER LTD D25 E19 = CA 1109-760
Reducing wear of acyl isethionate toilet cleanser - 73124A/41
- UNIL 18.07.77 UNILEVER LTD D11 = GB 1601-307
Paste base for pizzas, etc. pref. for freezing - 06060B/04
- UNIL 26.08.77 UNILEVER LTD A96 D21 = CA 1109-799
Non-irritant, non-tacky antiperspiration compsn. - 20277B/11
- UNIL 26.09.77 UNILEVER LTD D24 = CA 1109-623
Striped soap cake extrusion - 28147B/15
- UNIL 10.11.77 UNILEVER LTD D25 = CA 1109-761
Mechanically mixed, non-spray dried powdered detergent compsns. - 61483B/33
- UNIL 22.12.77 UNILEVER LTD A97 D25 E19 (A25) = CA 1109-756
Aq. detergent compsn. esp. for dish washing - 47208B/26
- UNIL 10.08.79 UNILEVER NV D22 E33 = PT --71-665
Compsn. for reducing axillary odour - 15960D/10
- UNIL 10.08.79 UNILEVER NV D22 E33 = PT --71-666
Compsn. for reducing axillary odour - 15960D/10
- UNIL 25.01.80 UNILEVER NV A96 D22 (A32) = J5 6118-736
Mfr. of water absorbent articles - 59034D/33
- UNIL 07.02.80 UNILEVER NV D13 = DK 8100-526
Tri:glyceride compsn. for replacing cocoa butter - 62665D/35
- UNIL 11.03.80 UNILEVER NV D25 = NO 8100-813
Particles of perfume and cationic matrix - 74168D/41
- UNIL 09.04.80 UNILEVER NV A97 D25 E34 = BR 8102-035
Built liq. detergent contg. sodium tri:poly:phosphate - 80080D/44
- *UNIL 09.04.80 UNILEVER NV A97 D25 E34 *EP --38-101
Built liq. detergent contg. sodium tri:poly:phosphate - 80080D/44
- *UNIL 11.04.80 UNILEVER NV D25 E19 *BR 8102-075
Washing and bleaching of cloth - D/44
- UNIL 11.04.80 UNILEVER NV D25 E37 = BR 8102-203
Liq. bleaching and cleaning compsn. - 80078D/44
- UNIL 11.04.80 UNILEVER NV D21 E37 (D25) = BR 8102-205
Detergent bar contg. halite ion source - 78281D/43
- *UNIL 11.04.80 UNILEVER NV D25 E37 *EP --38-099
Liq. bleaching and cleaning compsn. - 80078D/44
- *UNIL 11.04.80 UNILEVER NV D25 E37 *EP --38-100
Dishwashing machine compsn. - 80079D/44
- UNIX 05.03.80 UNISEARCH LTD D16 E17 = GB 2074-188
Continuous process for ethanol prodn. with cell recycling - 76250D/42
- UPJO 24.10.75 UPJOHN CO B01 D16 = J8 1042-919
(9)-Alpha-hydroxy-androstenedion fermentation prodn. - 33075Y/19
- *UPJO 16.04.80 UPJOHN CO B04 D16 *EP --38-156
Plasmid PUC 10 of molecular wt. 6.8 mega-daltons - 80114D/44
- *URFO 01.09.76 URALS FORESTRY INST D15 E11 *SU -802-204
Cooling and purificn. water stabilisation - 81192D/44
- *UYKA= 19.04.77 KALININ UNIV D13 E17 (D21) *SU -802-261
Surface active polyhydroxylated ester cpds. - 81246D/44
- *UYKA= 27.10.77 KALININ UNIV D15 F06 *SU -802-203
Recovery of dyestuff from textile processing waste water - 81191D/44
- UYNV- 14.04.80 UNIV OF NEW YORK A60 B05 D21 E14 (D22) = EP --38-191
5-Acyl-salicylanilide derivs. - 69730D/38
- *UYNV- 14.04.80 UNIV OF NEW YORK B05 D21 *EP --38-192
5-Substd. salicylanilide derivs. - 80129D/44
- *VANN/ 28.02.73 VANNIL D13 *IT 1052-127
Rotating press for continuous formation of cheese products - D/44
- VELT/ 14.03.80 VELTMAN P L D17 = US 4294-624
Prepn. of particulate carbohydrate(s) from soln. - 72159D/40
- *VENE- 30.12.75 OFF MECC VENERONI D15 *IT 1052-025
Dense liquids mixer - D/44
- *VERS/ 16.06.81 VERSTRAETEN D D11 *BE -889-239
Deep-freezing of foodstuffs, esp. pancakes - 79773D/44
- *VIBR- 07.01.80 AB VIBRASUG D22 *SE 8000-093
Mattress sterilisation plant cycle - 81018D/44
- *VNIP= 21.11.77 VNIPIENERGOPROM D15 *SU -802-192
Thermal power station effluent treatment - 81180D/44
- VOGT- 03.10.79 VEB VOGTLAND D15 = DD -146-445
Oil removal from waste water streams - 32652D/19
- *VOLK/ 03.12.79 VOLK A J D12 *US 4293-977
Poultry legs tie strip - 81454D/44
- *VWET/ 03.03.80 VAN DE WETERING G J D22 *NL 8001-264
Adhesive closer for throw-away hygienic article - 80987D/44
- WACK 26.10.78 WACKER CHEMIE GMBH A26 D21 E11 G02 (A82 A85 A96) = EP G011-714
Catalysed silylation of aliphatic multiple bonds - 34851C/20
- WAKD 19.05.77 WADAKO KK D13 = J8 1042-889
Prepn. of food which is stable under heating in acid - 06826B/04
- *WANS- 19.03.80 WANSON ETS D14 *FR 2478-484
Cleaner for exhaust fumes from industrial food frying plant etc. - 80181D/44
- *WASS- 07.01.80 FORSCH WASSERTECHNI D15 *DE 3045-712
Enzymatic sludge and liq. manure decomposition - 79976D/44
- *WASU 30.01.78 KHARK VODGEO WATER D15 X25 *SU -802-194
Electrolyser for effluent cleaning - 81182D/44
- *WATE- 25.01.80 WATER POLLUTION CON D15 *US 4294-696
Swing diffuser for gas diffusion into liq. - 81557D/44
- *WEIS- 21.04.80 GEBR WEISS KG D15 *DE 3015-246
Composting municipal clarifying sludge - 79961D/44
- WHIT/ 15.04.80 WHITLOCK G D D16 S03 = EP --38-134
Detecting live organisms in materials - 78311D/43
- WILK/ 31.01.78 WILKE G D11 #US 4294-862
(Flaky) pastry prodn. without a baking stage - 57016A/32
- *WOLM 14.04.80 WOLMAN DR GMBH A82 C02 D22 F09 *DE 3014-194
Antifungal timber preservative - 79888D/44

- *YAKU= 02.08.77 YAKUTSK LEATH FOOTW D18 *SU -802-364
Preparing leather for shoes with fur inside - 81329D/44
- YEDA 24.03.80 YEDA RES & DEV CO LTD B04 C03 D16 = FR 2478-670
Bovine growth hormone from new strains of E coli - 76381D/42
- *YOKO- 25.02.80 YOKO YAKKA KOGYO KK D15 M12 *J5 6118-788
Treating waste pickling soln. from iron and steel prodn. - 80671D/44
- YOSH/ 04.07.75 YOSHIDA K B04 D16 = J8 1042-270
Blood coagulation Factor three extn. - 15525Y/09
- *YUAS/ 28.03.80 YUASA I D15 *BR 8002-156
Continuous flow bio-gas digester and collector - D/44

- ZAID 25.08.77 ZAIDAN HOJIN BISEIBUTSU A97 B04 D16 = CA 1109-862
Purification of macromomycin antitumour antibiotic - 18537B/10
- *ZAPO= 25.05.78 ZAPORO IND INST D15 M24 *SU -802-202
Hot ferrous metal rolling recirculated water - 81190D/44
- *ZSCH- 27.03.80 ZSCHIMMER & SCHWARZ D25 E12 (E32 E33) *DE 3011-813
Lowering synthetic soap bar flooding - 79870D/44
- ZUCK- 18.04.80 VVB ZUCKER & STARKE D17 #DE 3014-951
Simultaneous cooling, hydration and granulation of dextrin - 80893C/46
- ZUCK- 18.04.80 VVB ZUCKER & STARKE D17 J04 #DE 3014-952
Agitation of bulk materials with low flowability in mixer - 32643D/19

F	FR 2283-220	X24 +	86499-W AD	26488-X DE	33987-X DE	46059-X BCDE	JB 1042-586	D44	50607-Y BDE	
	CH -591-557	Y41 +	US 3926-194	W52	BE -835-248	X15	BE -836-285	X19	DE 2608-174	Y29
	DE 2462-647	A03 +	DE 2552-098	X23	DE 2452-414	X20	DE 2457-257	X25	IT 1052-047	D44
	DE 2462-649	A03 +	GB 1521-999	A34	NL 7512-920	X21	NL 7513-889	X26		
	DE 2462-648	A03 +	CA 1080-073	C28	DS 2452-414	X35	FR 2293-418	X42		
	CH -594-729	A09 +	IT 1052-313	D44	FR 2290-492	X37	DS 2457-257	Y07		
	CH -594-730	A09 +			GB 1523-615	A36	GB 1504-390	A12		
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79877-D D DE 3013-541 D44	80125-D BD EP --38-182 D44 BR 8102-164 D44	80325-D D GB 2074-167 D44	80622-D DEJ J5 6118-666 D44	81029-D DJ J5 6118-668 D44	81488-D DJM US 4294-434 D44	
79888-D ACDF DE 3014-194 D44	80129-D BD EP --38-192 D44+	80329-D AD GB 2074-173 D44 BR 8102-223 D44	80623-D DJ J5 6118-668 D44	81025-D BD J5 6118-671 D44	81511-D D US 4294-589 D44	
79904-D DE DE 3014-503 D44	80133-D AD GB 2074-180 D44	80333-D AD GB 2074-180 D44	80625-D BD J5 6118-672 D44	81026-D BD J5 6118-702 D44	81543-D DJ US 4294-664 D44	
79926-D DJ DE 3014-741 D44	80135-D D GB 2074-183 D44	80335-D D GB 2074-183 D44	80626-D BD J5 6118-702 D44	81029-D DJ J5 6118-703 D44	81557-D D US 4294-696 D44	
79929-D D DE 3014-773 D44 GB 2074-005 D44	80136-D ADE GB 2074-184 D44+	80336-D ADE GB 2074-184 D44+	80628-D DJ J5 6118-702 D44	81034-D DJ J5 6118-708 D44	81559-D DE US 4294-708 D44+	
79950-D BDE DE 3015-113 D44	80142-D DL EP --38-235 D44	80339-D D GB 2074-187 D44+	80629-D DJ J5 6118-712 D44	81038-D D SU -802-194 D44	81563-D DE US 4294-718 D44	
79958-D DE DE 3015-220 D44	80147-D ABDE EP --38-246 D44	80378-D D J5 6085-239 D44 J5 6085-239 D35	80634-D DJ J5 6118-708 D44	81039-D DEJ SU -802-195 D44	81565-D ADF US 4294-731 D44+	
79961-D D DE 3015-246 D44	80150-D D EP --38-250 D44	80379-D CD J5 6085-255 D44 J5 6085-255 D35	80638-D ACD J5 6118-712 D44	81035-D DJ SU -802-197 D44+	81579-D DE US 4294-767 D44	
79964-D D DE 3015-254 D44	80151-D D EP --38-254 D44	80427-D D J5 6117-753 D44	80641-D DEJ J5 6118-715 D44	81036-D DJ SU -802-198 D44	81600-D DE US 4294-821 D44	
79965-D D DE 3015-261 D44	80153-D D EP --38-261 D44	80428-D D J5 6117-759 D44	80654-D AD J5 6118-729 D44	81037-D D SU -802-199 D44	81606-D BD US 4294-846 D44+	
79976-D D DE 3015-712 D44	80429-D D J5 6117-765 D44	80429-D D J5 6117-765 D44	80669-D DEM J5 6118-784 D44	81038-D D SU -802-200 D44	81609-D BD US 4294-852 D44+	
79983-D DJ EP --37-855 D44+	80154-D BCD EP --38-265 D44		80670-D DJM J5 6118-786 D44	81039-D D SU -802-201 D44	81610-D CDEH US 4294-853 D44+	

BE -888

* 392 79764D A96D22P3P8
* 430 79765D B04C03D16
* 454 79769D D21E14

DE -889

* 239 79773D D11
* 253 79774D D14X27P2
* 261 79777D D22F07P2
* 265 79780D A97D18J01P1
* 277 79784D A11D22F02

BR 8001

* 421 D D16

BR 8002

* 156 D D15
* 158 D D16E17H06

BR 8100

= 639 80086D A60C02D22F09P3 + P6
= 640 80086D A60C02D22F09P3 + P6

BR 8101

= 561 79999D D17E13

BR 8102

= 035 80080D A97D25E34
* 039 D D14
* 075 D D25E19
= 087 78073D A97D12
= 138 78235D D22P3 + P7
= 164 80125D B04D16
= 203 80078D D25E37
= 205 78281D D21E37
= 223 80329D A97D18

CA 1109

= 602 86106A A96D22P3
= 606 65283A D15G04
= 610 31587B D25E19F06
615 79186B D12
= 623 28147B D24
= 638 50004C D25E33
= 693 28770A D16J04S03 + Q5R1
= 722 86039A D12
= 723 79336B D17
= 724 38504A A11D12 + Q3
= 725 68906A A97D12
726 15838C D11E13
= 727 21489C D11
= 728 21796B D12
= 752 44369B A97D25E34
= 753 11590C D25E14
= 754 44573B A97D25E19
= 755 28869D A97D25E19
= 756 47208B A97D25E19
= 757 68460B A97D25E19
= 758 54938B A81D21F04P2 + Q3
= 759 02338B A97D25E19
= 760 73124A D25E19
= 761 61483B D25
= 762 44958C D25
= 763 91322B A96D21E17G02
* 771 79801D D12
= 785 23954B C03D16
= 793 37609B C03D13
= 798 14188B D21E14
= 799 20277B A96D21
= 804 80253D D15J01
= 807 16779Y D15H03J01S02 + R1
= 813 70827A B04D16
= 814 31504A B05D13E11
= 815 72069B A89D16J04S03R1 + P4
= 816 11897B D16 + Q5
= 860 45338V B02C02D13
= 862 18537B A97B04D16
= 865 55429A A97D13E23
= 875 27480C A97D18
= 889 75330B A41D15E11F06

DD -146

= 445 32652D D15

DD -149

= 841 66264D D11
* 842 79806D C03D13
= 843 73874C B04D16P3 + R1
* 868 79825D D16
* 869 79826D D16H04
* 870 79827D D16H04
= 871 73874C B04D16P3
* 872 79828D D16H04
* 873 79829D D16T06R2
* 874 79830D B04D16
* 875 79831D D16E17
* 900 79836D D12
* 901 79837D D13
902 48199C A60C03D13E13
= 916 72029D D12P6
* 940 79849D D18
* 947 79855D D18E24

DE 3006

* 092 79864D D13

DE 3010

* 869 79869D D12X25

DE 3011

* 813 79870D D25E12

DE 3012

* 085 79871D D16
= 192 76085D A97D12E17

DE 3013

= 421 58798D D16E17
* 541 79877D D15
= 925 80041D A87D15F06

DE 3014

= 165 79994D B05D21E17 + P8
* 194 79888D A82C02D22F09P6
* 503 79904D D16E12
* 741 79926D D11J02
* 773 79929D D11
= 814 04146D B04D16
951 80893C D17
952 32643D D17J04

DE 3015

* 113 79950D B02D13E13
* 220 79958D D22E19P3
* 246 79961D D15
* 254 79964D D15
* 261 79965D D16

DE 3045

* 712 79976D D15

DE 3047

= 477 66425D D13

DK 8000

= 406 60723D C03D13
442 27354C A96B04D16
= 480 66037D D14P1P7
577 22168C A97D25E17

DK 8001

= 955 66292D D13P1

DK 8002

= 853 55390D D12

DK 8005

= 570 58793D D16

DK 8100

= 285 60786D D13P1
= 298 56870D B03C02D16
= 338 42128D B05D21
= 375 59059D A97C01D16
= 425 42127D A96B05D21
= 426 62670D B04D13
= 427 60791D B04D16
= 428 47730D B05D21
= 477 80086D A60C02D22F09P3 + P6
= 478 80086D A60C02D22F09P3 + P6
= 484 60948D A97D16
= 514 62609D B04D16S03R1
= 525 60440D B02D16
= 526 62665D D13

DK 8101

= 280 82595V D25
= 281 82595V D25

DS 2860

= 840 33689B A97D12 + P4Q6

DS 2960

= 474 79430B C03D15
= 483 89726B D25E17
= 486 09373C D25E16
= 489 23908C D15J01 + Q7

EP -37

810 39997C D13 + Q7
= 836 32558D A14D16J01
* 855 79983D D15J01
* 886 79991D D15J01
* 887 79992D D13E37
* 891 79994D B05D21E17 + P8
* 912 79999D D17E13
= 931 77974D B04D16
* 932 80007D B05D13S03R1
* 939 80009D A96D22F06P3
= 944 75973D D22
* 972 80021D D11X25P4
* 999 80037D D13

EP -38

* 008 80041D A87D15F06

EP -38

= 017 77951D D15
* 052 80057D C03D13E17
* 053 80058D C03D13E16
* 099 80078D D25E37
* 100 80079D D25E37
* 101 80080D A97D25E34
* 105 80082D D18E31
* 106 80083D D18E31
* 109 80086D A60C02D22F09P3 + P6
= 130 72356D D17
= 134 78311D D16S03R1
* 150 80111D A96B04D16S03R1
* 156 80114D B04D16
* 182 80125D B04D16
= 191 69730D A60B05D21E14
* 192 80129D B05D21
* 235 80142D D15L02
* 246 80147D A96B05D21E12
* 250 80150D D11Q1
* 254 80151D D13S03P1R1
* 261 80153D D12Q3
* 265 80154D B04C03D16

EP G000

= 932 09813B B02D16

EP G001

= 887 37528B B02C02D18E13

EP G003

= 916 65022B B04D16

EP G004

= 968 79412B D23E13

EP G005

= 864 89757B B04D16

EP G010

= 012 27768C D25E11H03

EP G011

= 714 34851C A26D21E11G02P3

EP G015

= 388 62657C B04D16

FI 8100

= 296 80086D A60C02D22F09P3 + P6
= 297 80086D A60C02D22F09P3 + P6

FR 2478

427 53806D D16 + P1P4
= 431 78111D D11
* 432 80178D D12P4
= 433 55169D D12Q4
= 434 76177D D13
= 435 76316D D15
= 436 76197D D12
= 461 62888D A96D22G03 + P3
= 465 70355D A96D21
466 73449C D23E19
= 467 76184D D21E12
* 468 80179D A96D21E19
* 470 80180D B04D16S03R1
= 481 25436D D25E12J01
* 484 80181D D14P2
= 485 72303D A96B05D21E19
* 493 80182D C03D13P1P4
= 616 75707D D15Q7
= 617 72333D D15X25
= 636 56987D B03D21
= 643 53458D B05D23E11
= 650 78112D A96D22G03P3
* 663 80208D A97D15H03J01
= 670 76381D B04C03D16
= 699 03913C D15H03 + Q4
= 818 78309D D16S03R1

GB 1601

* 123 80238D A97D25E16
= 138 72990A D15J01P3
* 155 80241D D16
170 75430B A94D22F04 + P3P7
= 187 06301B D21E13
= 249 62157A B03C02D22
= 300 14429B D23E15
= 307 06060B D11
* 339 80253D D15J01
* 350 80259D D15
= 359 18475B D25E19F06
* 360 80260D D25E19
380 72835A D15
382 86099B D15J09 + Q7
* 430 80263D A96D22E34
= 465 82444C D16Q7 + P1Q3
= 479 84059A B02D16
= 503 00314B A97D22F01P3
= 504 00314B A97D22F01P3
= 518 73104A D15J01Q5
= 519 73104A D15J01Q5

GB 1601

= 521 72730A A14C03D14
= 546 26236B D18 + P6

GB 2074

* 004 80274D D13
= 005 79929D D11
* 006 80275D D13
* 007 80276D D13
* 008 80277D D13
* 011 80279D D22P2
025 60390C B05D21
* 036 80285D D16E17
* 037 80286D D15
= 082 75743D D14
= 083 67971D D13
* 167 80325D D17
* 173 80329D A97D18
* 180 80333D A96D21
* 183 80335D D23
* 184 80336D A96D21E11
* 187 80339D D17
= 188 76250D D16E17

IT 1052

* 025 D D15
= 047 50607Y B05D13E14
= 066 54542X D18F02 + Q3
= 092 54530X D25E19
= 096 20604X A82D18F06G02
= 098 40035X D13
* 103 D D12
= 109 37397S B05D21E12
= 123 39749U D13
* 127 D D13P1
= 132 14727W D13E13
= 139 05616X D22E11P3
= 142 38471X D13
= 147 39280X C03D13 + P1
= 148 26488X D25E12
= 158 20395X A97D25E32
= 165 33958X A92D14Q3
= 170 26505X D25E33J01
= 196 40363X B03C02D22E13 + P3
= 197 86179W D22P3
= 282 38101F B05D21
= 287 38459X D25E33
= 313 86499W A96D22P3
= 314 31561X A96D22P3
= 318 31921X B04D16S03S05R1 + P3
= 325 35648X A96D22F07P3
= 349 18863X D13E17
= 357 30220X D22F07P3
= 365 81152W D22P3
= 386 24123X D21P3
* 391 D D16
= 408 76225X D13
= 415 01553X D22P3
= 432 33987X D22E15P3
= 467 40032X D16J01S03T06R1
= 487 46059X B05C01D25E11
= 489 46431X D13

J5 0132

= 139 80953D D13

J5 0135

= 297 80954D D11

J5 2079

= 075 47244Y D16 + Q3R1

J5 2090

= 651 80955D D16E17

J5 3020

= 153 80981D D15J08Q7

J5 6085

* 239 80378D D12
= 239 80378D D12
* 255 80379D C03D13
= 255 80379D C03D13

J5 6117

* 753 80427D D13
* 759 80428D D12
* 765 80429D D12
* 768 80430D D11
* 769 80431D D11
* 770 80432D D11
* 771 80433D D13
* 776 80434D D13
* 781 80435D D13E33
* 783 80436D D12E34
* 784 80437D D12
= 786 D D13
* 787 80438D D13
* 790 80439D D16
* 792 80441D A96D16
793 68171C A23C03D16G02
* 794 80442D B05D16

J5 6117

J5 6117
 = 795 46252D B05D16E16
 * 796 80443D D17

J5 6118
 * 009 80454D A96D21
 = 010 62827D D21
 * 011 80455D A96D21
 * 012 80456D D21
 = 018 49988D B04D16
 = 056 50047D C03D22E16H01
 = 078 62579D B02D16
 * 094 80504D B04C03D16
 * 499 80616D D22P2Q4
 * 500 80617D D18F08
 * 666 80622D D15E31J04R1
 * 668 80623D D15J04R1
 * 671 80625D B04D16R1
 * 672 80626D B04D16R1
 * 702 80628D D22J01
 * 703 80629D D15J01
 * 708 80634D D15J01
 * 712 80638D A83C03D22P2
 * 715 80641D D22E36J01
 = 725 58995D D15Q3Q5
 * 729 80654D A96D21
 = 734 64652D A81D15J01
 = 736 59034D A96D22P3
 * 784 80669D D15E36M12
 * 786 80670D D15J03M14
 * 788 80671D D15M12
 * 794 80672D D15
 * 798 80673D A97D15
 * 799 80674D D15P4
 # 971 57238C A96D21E14

J5 6119
 = 113 72382D D22E36P8

J5 6120
 * 506 80894D C03D25E34

J8 1042
 = 250 18205Y D13
 * 252 80953D D13
 * 263 80954D D11
 = 264 09345A B04D16
 = 265 28162Y A97D16P1
 = 266 53247X D16
 = 267 16436A D16
 = 268 33120X A96B04D16
 = 269 37369Y A96B04D16
 = 270 15525Y B04D16
 = 271 80622Y B04D16
 * 272 80955D D16E17
 = 273 64162Y D16E17
 = 274 75202Y D16E17
 = 275 91056Y D17E13
 = 276 64164Y B05D16
 = 277 84043W B02D16
 = 278 37035X B04D16
 = 279 74592Y B02D16
 = 322 78615Y D15E33
 = 331 23682X A91D15
 = 335 74613Y A35D13 + P4
 = 342 32540X D15E19F09
 = 345 65851X A97D15J01
 = 352 25681X D15E11
 = 353 91102Y D16E17H09 + P4
 = 355 93200X D15
 = 356 93201X D15
 = 357 93202X D15
 = 358 93203X D15
 = 359 85702X D15E36J01
 = 360 36840Y D15
 # 442 17240Y C03D22E32F09P6
 = 579 76529Y B05D16
 = 580 76526Y B05C03D16
 = 586 01379Y B05C03D13
 = 595 10074Y D16E16
 = 600 55083B B05D16
 = 634 68116V D21G01
 = 640 21480X D13E16
 = 675 40967W D15E36J03X25 + P5R4
 * 822 80981D D15J08Q7
 = 887 36013B D11
 = 888 62769A A92D13E36
 = 889 06826B D13
 = 893 54413A D13
 = 897 77268A D18E15P1
 = 898 77269A D18E15P1
 = 899 09085B D18P1
 = 900 09086B D18E16P1
 = 901 09087B D18F19P1
 = 902 46519B A97D18P1
 = 903 47244Y D16 + Q3R1
 = 905 26874B B04D16
 = 906 32370B D16
 = 908 71596A A97B04D16
 = 909 77261A D18E15
 = 910 75352A D16E17H04
 = 911 75353A D16E17H04

J8 1042
 = 912 32465A B05D16
 = 914 54424A B05D16
 = 915 06833B B02D16
 = 916 06834B B02D16
 = 917 44949B B04D16
 = 918 44947A B05D16E16
 = 919 33075Y B01D16
 = 920 77618Y B04D16J04S03R1

NL 7909
 # 119 41523C D15J02 + P1

NL 8001
 = 198 72124D D15 + P4
 = 202 02405D D12
 * 214 80984D C03D15
 * 264 80987D D22P2
 = 372 70181D D15J01P4
 * 404 80989D D14P2

NL 8006
 = 115 19388D D13
 = 691 40229D C03D13E36

NL 8100
 = 728 66258D A11B04D16
 = 779 76264D D13P1Q6
 = 997 51687D D15

NL 8101
 = 057 68433D D11
 * 071 80995D D13P1
 = 159 28954D A85D15J03L03R4
 = 182 53481D B05D13
 = 211 71769D D12 + P4

NO 8000
 # 707 44299D D12

NO 8100
 = 366 80086D A60C02D22F09P3 + P6
 = 367 80086D A60C02D22F09P3 + P6
 = 712 80995D D13P1
 = 773 70190D C03D16
 = 778 70147D B03D21
 = 803 72134D B04D16
 = 813 74168D D25
 = 829 71769D D12 + P4

NO 8102
 = 511 44034D A96D22F06P3

PT -71
 = 647 16003D A97D15E11
 = 665 15960D D22E33
 = 666 15960D D22E33
 = 739 23886D B04D16

PT -72
 = 045 38502D B04C03D16
 = 461 68273D D16P1
 = 478 53458D B05D23E11
 = 514 64388D D18
 = 522 73713D D15E37
 * 536 D D18
 = 540 66394D B03D13E13
 = 587 68330D D25E12F06

RD -210
 * 014 81005D D15E34
 * 021 81008D D15G06J01M25

SE 8000
 * 093 81018D D22P3
 = 093 81018D D22P3
 * 430 81022D D15
 = 430 81022D D15

SE 8001
 = 789 76264D D13P1Q6
 * 794 D D15E17

SE 8101
 = 120 67971D D13
 = 310 80995D D13P1
 = 504 71769D D12 + P4

SU -802
 * 189 81177D D15
 * 190 81178D D15
 * 191 81179D D15E36
 * 192 81180D D15
 * 193 81181D D15X25
 * 194 81182D D15X25
 * 195 81183D D15E31J03
 * 197 81185D D15J01X25
 * 198 81186D D15J01
 * 199 81187D D15
 * 200 81188D D15
 * 201 81189D D15
 * 202 81190D D15M24

SU -802
 * 203 81191D D15F06
 * 204 81192D D15E11
 * 261 81246D D13E17
 * 272 81255D D25E12
 * 273 81256D D25E12
 * 290 81269D A11B04D13
 * 360 81325D B04C03D13
 * 361 81326D C03D16
 * 362 81327D C03D16
 * 364 81329D D18

US 4293
 * 977 81454D D12
 = 978 28420D D12
 * 979 81455D D12
 = 980 02229C D12
 * 981 81456D D12

US 4294
 = 018 14041D D13J08Q7
 # 037 64633C C03D16P1
 = 087 82713C D18
 = 166 16291B D11 + P2
 = 167 51922D D14P2
 * 168 81468D D13
 * 240 81471D A96D22P3
 * 241 81472D A96B04D22P3
 = 253 46411C D22P3
 * 266 81474D D18E13P1
 * 349 81482D A96D21Q3
 * 434 81488D D15J01M11V04
 * 589 81511D D15
 = 624 72159D D17
 = 656 31754B D15F09S03S05R1
 * 664 81543D D16J01
 = 694 72267B A97D15
 * 696 81557D D15
 = 697 69997C D15X25 + P4
 = 699 27803C D15J01
 = 703 06150D D15E37
 # 705 31595B D15
 = 706 47522C D15
 * 708 81559D D13E15
 = 710 10185D D25E19
 = 711 25867D D25E13
 = 717 79469B D25E12
 * 718 81563D D25E34
 = 727 82775C D23E13
 = 728 56180T D21E17
 * 731 81565D A11D22F07
 = 754 85087B B04C03D16
 * 767 81579D D13E13
 = 771 79208C D25E12
 = 797 79057C D22 + P3
 = 804 82930C D22P3
 = 817 42821B A96B04D16J04R1 + P3
 * 821 81600D D22E17P3
 = 827 59652A B02C02D13
 * 846 81606D B03D16
 * 852 81609D B05D21
 * 853 81610D C03D22E16H08
 * 855 81611D D21E16
 # 856 13699X C03D13
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 * 992 81654D B05D23E14

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 * 048 81668D A35D22K08S03R1

CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

WEEK D45
23 DECEMBER 81
81672D - 83550D

ABSTRACTS

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Section D:

FOOD DETERGENTS

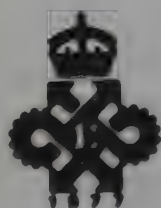
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COUNTRY	PUB DATE(S)	NUMBER RANGE
AUSTRIA	15 OCT 81	7,209,880 - 8,102,421
BELGIUM		
-Delayed	19 OCT - 25 OCT 81	888,467 - 888,545
-Non Delayed	16 OCT 81	889,311 - 889,376
BRAZIL	20 OCT 81	7,909,043 - 8,103,156
CANADA	6 OCT 81	1,110,001 - 1,110,400
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DENMARK	12 OCT 81	7,904,307 - 8,100,843
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-OLS	29 OCT 81	3,001,007 - 3,049,609
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EUROPE		
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		2,074,431 - 2,074,830
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	31 AUG 81	1,052,901 - 1,053,000
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	22 SEP - 29 SEP 81	56,120,601 - 56,123,934
-Examined	8 OCT - 14 OCT 81	81,042,921 - 81,043,760
NETHERLANDS	16 OCT 81	168,105 - 168,392
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-Reissues	20 OCT 81	Re30,774 - Re30,781
-Patents	20 OCT 81	4,295,227 - 4,296,496
PCT	29 OCT 81	8,102,966 - 8,103,105

*Includes numbered Basics from Week D38

Arrangement of Abstracts

'MAJOR' COUNTRIES – An alerting abstract of every basic document is provided, and of examined equivalents from West Germany, Great Britain, Japan, the Netherlands and the United States, and granted and unexamined European and unexamined PCT equivalents. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section	Latest Priority	Earliest Disclosure Basic Patent	Accession No	Earliest Priority	Patent No	IPC
MEDA-				A89			69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SE28.7.75)										
MEDAC GES KLINISCHE 11.10.74-DE 448552 (31.12.73-DE-365284)										
B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26										

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

LECO- ★ D11 81689 D/45 ★ BE -889-330
Spreading layer of paste on band for cooking crepe etc. - with fine adjustment of thickness by heating contact zone of band

LECORA AB 30.06.80-SE-004824

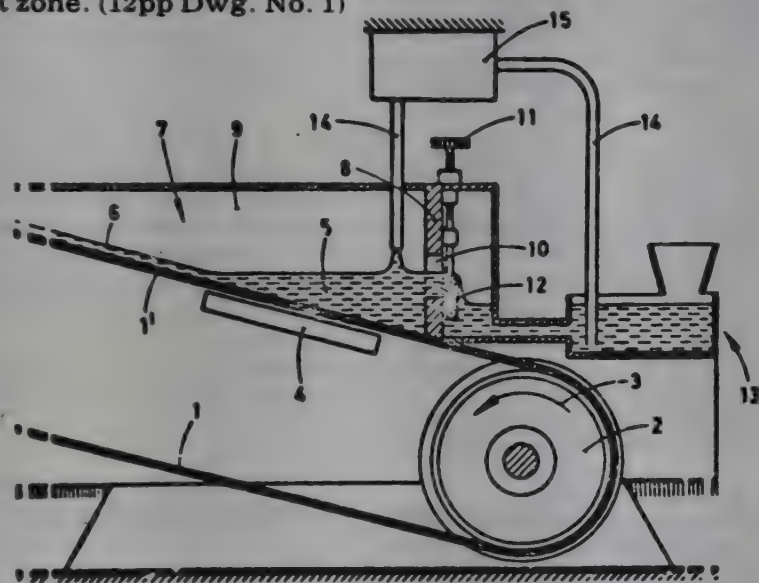
P42 (16.10.81) B05d

22.06.81 as 889330 (448DH)

Process and a machine is described for spreading a mixt. of edible paste in a layer of uniform thickness on the upper surface of the flat, endless conveyor band. The band carries the layer to a cooking oven. A length of the upper run of the conveyor band is heated across the full width of the band. Within this length, the upper surface of the band is brought into contact with the mixt. of edible paste.

Pref. adjustments are provided to extend the length of contact between band and mixt. to increase the thickness of the layer and to shorten the length of contact to reduce the thickness of the layer. The thickness of the layer can also be increased by slowing down the speed of the band and the layer thickness decreased by speeding up the band.

Useful in industrial prodn. of pancakes, crepes, etc. The layer is uniform in thickness which can be precisely regulated by controlling the degree of coagulation of mixt. In the heated contact zone. (12pp Dwg. No. 1)



EGOR- ★ D11 81818 D/45 ★ DE 3016-032
Baking oven control switch - with drum controller and friction coupling for temp. regulator

EGO REGELTECH GMBH 25.04.80-DE-016032

T06 X25 Q63 Q74 (X27) (29.10.81) A21b-01/40 F16d-07 F24c-07/08 G05g-07/02 H05b-01/02

25.04.80 as 016032 (39HM)

A switch and control device, specially for baking ovens, consists of a drum controller carrying several cams for operating the contacts for ancillary operations. A friction coupling joins the controller spindle to a temperature regulator. The mating coupling faces are so designed that the drum controller can be turned further after the temperature regulator has reached its ON position. At the same time, the coupling is prevented from turning back relative to the temperature regulator.

This switch can be produced and assembled at low cost. (15pp)

CUET/ ★ D11 82022 D/45 ★ FR 2478-950
Special bread based on wheat and rye flour - also pref. contg. corn and buckwheat flour and sunflower substance

CUETKO E 28.02.80-FR-004664

(02.10.81) A21d-13

28.02.80 as 004664 (597HM)

Special bread compsn. is based on wheat and rye flours. Other pref. ingredients are buckwheat flour, cornflour and a sunflower substance. A pref. compsn. contains wheat flour (730g), rye flour (100g), buckwheat flour (50g), cornflour (100g), sunflower substance (20g) used to make bread in the normal way with salt (20g) and water (600g).

It has a distinctive taste, can be stored for a month and is satisfactory for freezing. (3pp)

WILL/ ★ D11 82116 D/45 ★ GB 2074-434
Baker's oven with vertical stack of compartments - with rotating shaft carrying perforated supported in each compartment

WILLETT P 25.04.80-GB-013835

(04.11.81) A21b-01/44

25.04.80 as 013835 (295BZ)

A baker's oven comprises a casing defining a vertical cylindrical interior divided by spaced horizontal heat-insulating decks into superimposed cylindrical compartments. Each compartment has a loading doorway. A shaft passes vertically through all of the compartments and carries within each compartment a perforated, horizontal, circular support for articles to be baked. A cylindrical heat-insulating core is mounted in each compartment disposed coaxially about the shaft and extending upwardly from the support to adjacent the top of the compartment. Electric heating elements are mounted on the bottom and top of each compartment. The shaft is rotated to simultaneously rotate all of the supports.

The oven is compact and each compartment can be provided with its own controls so that a variety of products each with different baking requirements, can be baked satisfactorily simultaneously. (6pp)

FOLL- ★ D11 D/45 ★ IT 1052-999

Dough articles forming and distributing machine

DITTA FLLI FOLLIF 11.04.75-IT-003381

(31.08.81) A21d

NISS ★ D11 82353 D/45 ★ J5 6121-428

Bread mfg. method - involves adding cystine or methionine and mono:carboxylic and 4-carbon di:carboxylic acids to dough

NISSHIN FLOUR MILL KK 27.02.80-JP-022832

E17 (D16) (24.09.81) A21d-02/28

27.02.80 as 022832 (5RH)

Method comprises adding (a) cystine or methionine and (b) at least one kind of organic acids selected from monocarboxylic acids and 4C dicarboxylic acids in dough, kneading the mixt., fermenting it and baking it.

By combining (a) and (b) in the dough, bread which is voluminous and has excellent texture, appearance, tissue and taste and flavour, can be obtd.. Further the dough is not sticky and the mfr. of bread can be practiced with good performance.

Usually cystine or methionine is used in amts. of 5-100 ppm pref. 15-60 ppm on flour. As organic acid, monocarboxylic acid such as acetic acid, lactic acid, gluconic acid, etc. and 4C dicarboxylic acid such as succinic acid, fumaric acid, malic acid, tartaric acid, etc. can be used and organic acid is used at 10-1000 ppm pref. 100-500 ppm on flour. In the dough L-ascorbic acid, dehydroascorbic acid or their salt may be combined and it is used 3-30 ppm pref. 5-15 ppm on flour. (4pp)

NISS ★ D11 82354 D/45 ★ J5 6121-429

Prod. of bread having excellent taste and flavour - involves adding cystine or methionine and lactic acid bacteria to dough, kneading, fermenting etc.

NISSHIN FLOUR MILL KK 27.02.80-JP-022833

E16 (D16) (24.09.81) A21d-02/28 A21d-08/04

27.02.80 as 022833 (5RP)

The method is effected by adding (a) cystine or methionine and (b) lactic acid bacteria to dough, kneading the mixt., fermenting and baking. % Usually cystine or methionine is used 5-100 ppm pref. 15-60 ppm on flour. As lactic acid bacteria the bacterial strain which can form lactic acid plentifully from glucose, etc. can be used and Lactobacillus flanthalum, L. brevis, etc. can be used pref. The strains are previously cultured in the culture medium contg. glucose as the major carbon source and usually 1 x 10 power 8 to 1 x 10 power 12 counts of the bacteria are used on 1 kg of flour. In the dough L-ascorbic acid, dehydroascorbic acid or their salt may be combined and it is used 3-30 ppm pref. 5-15 ppm on flour.

By combining (a) and (b) in the dough excellent bread which is voluminous and excellent in texture, appearance, tissue and taste and flavour, can be obtd. Further the dough is not sticky and the mfr. of bread can be practiced with good performance. (4pp)

NISS D11 21489 C/12 #US 4296-133
 Bread making dough - contg. L-ascorbic acid and an amino acid or an alum, gives increased risen vol. and high quality
NISSHIN FLOUR MILL KK 11.10.78-JP-125350 (24.08.79-US-070321)
 (20.10.81) *NL7906-459 A21d-02/08 + A21d-08/02
 24.08.79 as 070321 (931AT)
 Bread is produced by kneading a dough together with 3-30 ppm of L-ascorbic acid, dehydroascorbic acids or their salts as an additive; and 5-60 ppm of a second additive, 5-80 ppm of methionine, 10-60 ppm of an alum or 5-70 ppm of a nicotinic acid, (wts. w.r.t. the wheat flour). The kneaded dough is allowed to ferment, then baked.
 The second additive is maleic acid, alpha-keto glutaric acid, tartaric acid, asparagic acid, glutamic acid, hydroxy-oxalic acid, oxo- or diamino-succinic acid, gamma-hydroxyglutamic acid or their salts. Pref. the salts additive may comprise potassium, burnt or burnt ammonium alum, and a polymerised phosphate is used as an extra additive.
 The bread produced has a sufficiently large vol., a satisfactory inner phase, outer phase and texture. (5pp)

RIJK- D11 87114 B/48 #US 4296-135
 Forming a continuous layer of emulsified material - using shearing action to break down structure of material and improve its workability
MACH RIJKAART CBV (RUTT) 09.05.78-NL-004983 (06.06.79-US-045999)
 + P62 Q36 (20.10.81) *NL7804-983 + A21d-13 A23c-15
 06.06.79 as 045999 (6AT)
 Appts. for forming a continuous layer of butter or margarine in ribbon form, e.g. for puff pastry prodn. by making a dough-butter layered assembly, comprises a scraper which repeatedly scrapes off amts. of butter from a feed block and deposits them on a moving support to be joined endwise as the continuous ribbon.
 Specifically a dough layer is deposited on the advancing ribbon of butter, for subsequent cross-cutting into portions. (4pp)

D12: MEAT; FISH PROCESSING

UNIC ★ D12 81677 D/45 ★BE -888-526
 Machine for packing boned ham into sleeve of wrapping film - compresses then extrudes ham through tube into sleeve
UNION CARBIDE CORP 23.04.80-US-142907
Q32 (22.10.81) A23l B65d
 22.04.81 as 888526 (448DH)
 The ham is pushed from a loading box, through an extrusion tube into a progressively extending tube of film released from accordian pleated store of tube loaded coaxially on the exterior of the extrusion tube. The extrusion tube has a bell-mouthed entry in one end of the loading box. The loading box has a powder closed cover and a mobile back plate which is the head of a power cylinder ram. The ham is placed in the open loading box.
 The cover is brought down and the profiled back plate advanced to size the ham for entry into the bell mouth of the extrusion tube. The end of the loading box opposite the bell mouth houses a two stage fluid power ram head. On its first stage the ram head advances to push the ham into the extrusion tube.
 On its second stage, a reduced area of ram head advances through the extrusion tube to expell the ham into the extending tube of wrapping film. The extrusion tube has vents to allow air to escape as the ham is pushed into the tube towards a sealed end of wrapping film. Fully automatic wrapping of boned hams etc. at high speed, e.g. 10 hams per min. is achieved. (32pp)

GEFL- ★ D12 81704 D/45 ★DD -149-998
 Poultry heading machine - compensates for various neck lengths by spring loaded guard
VEB GEFLUGELWIRTS 08.04.80-DD-220279
 (12.08.81) A22b-03/08
 08.04.80 as 220279 (39TM)
 A heading machine for poultry precedes the circular cutter blade by a curved tensioning guard with a centre of motion parallel to the axis of the cutter blade and loaded by a tension spring. Its longer lever arm ensures that the neck of the poultry is approached to the cutter blade only when the head contacts the under side of the guide rails.
 This compensates for any variation in the neck length, and makes the machine suitable for large poultry such as geese and turkeys, without wasting any edible meat. (7pp)

IKAR/ D12 13622 C/08 = J8 1043-211
 Frozen fish prepn. - by spraying with low temp. aq. soln. of propylene glycol
IKARI M 21.06.78-JP-074153
E17 (09.10.81) *J55003-723 A23b-04/08
 21.06.78 as 074153 (TM)
 Method comprises spraying aq. propylene glycol soln. contg. 38-45 w/w% propylene glycol and precooled to -17 to -25, esp. -20 to -21 deg.C on fish while the cellular tissue can reject the permeation of propylene glycol. If necessary, defoaming agent is added to the aq. propylene glycol soln. After spraying the aq. propylene glycol soln. is recovered and filtered and after adjusting its concn. to 38-45 w/w% with fresh propylene glycol, is recycled.
 Freezing time can be greatly shortened. Fish can be frozen while preventing oxidation and decrease in wt. due to drying. Due to the antibiotic activity of propylene glycol the frozen fish can be preserved safely. The frozen fish have excellent appearance and taste and can be frozen in large quantities.

(J55003723) (5pp)

FUTK D12 68197 V/39 = NL -168-117
 Automatic sausage filling machine - with mechanized drive for spreading, filling binding and cutting
FUTABA DENKI KOGYO 10.03.73-JP-028331
Q31 (16.10.81) *DE2411-020 A22c-11/02
 08.03.74 as 003147 (160HM)
 The machine automatically filling wrappings with meat products, having a filling nozzle and a support moved to and fro along a guide frame. The wrapping strip is delivered continuously, and is secured by first clamps to the outside of the support so as to move with the latter towards the nozzle. Second clamps secure the open strip end to the outside of the nozzle as the support moves away from it and the product is forced into the wrapping and against a head on the support.
 The head is mounted on a spindle telescoping in a guide tube fixed to a transverse wall on the support, there being a spring between head and wall. (10pp)

STRK D12 12724 W/08 = NL -168-118
 Poultry intestines removal - using a pivoted sloop and a carrier exhibiting a fixed support surface
STORK BRABANT BV 07.08.73-NL-010913
 (16.10.81) *BE-818-516 A22c-21/06
 07.08.73 as 010913 (160TM)
 The machine removes the entrails of slaughtered poultry, having a spoon-shaped member on the end of a bracket coupled to a control and swinging about an axis at an angle to the lengthwise bracket surface.
 The bracket has a solid portion joined to the spoon-shaped member and inserted with it in the bird, its forward edge being in front of the member axis. (7pp)

TEEP- ★ D12 83255 D/45 ★US 4295-247
 Dividing continuously shirred casings into strands - by stretching casing between gripper and separator jaws
TEEPAK INC 08.05.80-US-147768
 (20.10.81) A22c-13/02
 08.05.80 as 147768 (295HM)
 Shirred sausage casings are advanced continuously along a fixed mandril. Gripper jaws extend from a carriage and encircle the casing, then advance downstream in synchronism with the casing. A second set of similar (separator) jaws are mounted on a second carriage which also moves in synchronism with the casing. Initially the separator jaws are immediately adjacent the downstream face of the gripper jaws.
 To separate the casing, the separator jaws are moved rapidly downstream to rupture the casing. Pref. both the gripper and separator jaws are rotated in synchronism with the rotation of the casing about the mandril.
 The appts. produces strands of shirred sausage casing. (16pp)

FARH D12 73745 C/42 = US 4295-563
Sausage-packaging hollow rod assembly - contg. fibre-reinforced cellulose hydrate gathered-up hose in gas-impermeable foil laminate pack BE 29.9.80)
HOECHST AG 30.03.79-DE-912720
A97 Q34 + Q32 (20.10.81) *DE2912-720 + B65d-81/18 B65d-85/08
26.03.80 as 134313 (1376NS)
A hollow rod of cellulose hydrate-based material having a latent water content of 25-100% is positioned inside a closed gas impermeable packaging sheath of flexible film. A protective gas fills the sheath not occupied by the rod to protect the rod against the formation of aerobic micro-organisms. The gas is pref. of CO₂. Shredded packaging rod can be stored for long periods. (5pp)

SETO- D12 40481 D/23 = US 4295-894
Soluble collagen fibre prepn. from hides - by treating with alkali hydroxide and water extractor, stabilising chorionic bonds and precipitating from acid soln.
SETON CO 19.11.79-US-095391
(D21) (20.10.81) *DE3043-551 + C08k-03/24 C08l-89/06
19.11.79 as 095391 (965AT)

Prodn. of soluble collagen fibre from a raw animal hide (I), comprises treating (I) with aq. Gp.IA hydroxide and an organic dehydrating agent to remove hair and fat from (I). A hair and fat free corium (II) is obtd. The interfibrillar bonds of the collagen in (II) then stabilised with aq. alkali sulphate. (II) is then neutralised and dissolved in aq. acid to form a collagen soln. (III). The collagen fibres are then pptd. from (III) and dried. Pref. the pptn. is effected by adjusting the pH of (III) to the isoelectric point.

The fibres can be used as a meat texturiser, food adjuvant or in cosmetics. The process is simple. (3pp)

D13: OTHER FOODSTUFFS

NATE-★ D13 81787 D/45 ★DE 3015-537
Aflatoxin(s) chromatographic detection in extracts - in mini-column packed with glass wool, sodium sulphate, magnesium silicate gel, silica gel, neutral alumina, sodium sulphate and glass wool

NATEC INST NATURWIS 23.04.80-DE-015537
B04 J04 S03 (29.10.81) G01n-31/08 G01n-33/02
23.04.80 as 015537 (280AS)

Rapid determination of dissolved aflatoxins is effected by chromatography on a mini chromatographic column and comparison of the colour or fluorescence intensity of the resulting aflatoxin zones or bands with those of chromatogram zones or bands of a standard substance in known, graduated concns. in a similarly fitted control column, the colour or fluorescence intensity of the standard substance corresponding substantially to those of the aflatoxins to be determined.

The mini chromatographic column is filled, in order (bottom upwards) with a layer of glass wool, granulated sodium sulphate, magnesium silicate gel (Florisil(RTM)), silica gel, neutral alumina, granulated sodium sulphate and a sealing layer of glass wool and is activated by heating 2 hrs. at 110 deg. A measured amt. of the solution mixture to be examined for aflatoxins is applied to the column, then the column is developed by descending chromatography using a suitable solvent mixture.

Used for determination of aflatoxins, esp. in plant and animal extracts, e.g. to determine aflatoxins B₁, B₂, G₁ and G₂ in foodstuffs.

Simple and rapid procedure which, because descending chromatography is used, permits the amount of developing solvent to be accurately measured and therefore gives improved reproducibility. (30pp)

HAYE/★ D13 81796 D/45 ★DE 3015-712
Casein prodn. from milk - with concn. step to remove water, lactose, salts and non-protein nitrogen

HAYER H 24.04.80-DE-015712
(29.10.81) A23j-01/20

24.04.80 as 015712 (903BZ)

Casein prodn. from milk (derivs.) (I) comprises first concentrating (I) by removal of water and/or aq. lactose, salts, non-protein N and other components. Milk serum protein is then sepd. off. Concn. is e.g. by ultrafiltration, inverse osmosis or evapn. The energy requirements of the process are less than if concn. is not first carried out. (3pp)

LOHM-★ D13 81837 D/45 ★DE 3016-214
Improving protein provision of cattle esp. milk cows - by adding hydrolysed feather meal to the feed

LOHMANN TIERERNAHR 26.04.80-DE-016214
C03 (29.10.81) A23k-01/18

26.04.80 as 016214 (280MR)

New method for improving protein provision for cattle (esp. in the first third of the lactation period) comprises adding hydrolysed feather meal (I) to the cattle feed. New cattle feed contains (I) and rumen-resistant amino acids.

(I) has a high protein content but is resistant to digestion and degradation in the rumen, only being digested in the later stages of the digestive system of cattle. It thus offers a cheap and effective alternative to 'protected proteins', which have previously been used to overcome the degradative effect of the

rumen on added dietary protein.

When milk prodn. is greater than 20 (esp. greater than 25) litres per day, (I) is pref. administered in an amount of 300-1500 g. per cow per day. The cattle feed pref. contains the hydrolysed feather meal in an amount of 5-50 wt.%. (20pp)

GIVA D13 33030 C/19 = DS 2960-514
2-Methyl-2-vinyl-5-substd. hexenyl-tetrahydro furan derivs. - useful as flavouring and aromatising agents with fruit smell (J5 22.3.80)

GIVAUDAN L & CIE SA 08.09.78-CH-009470

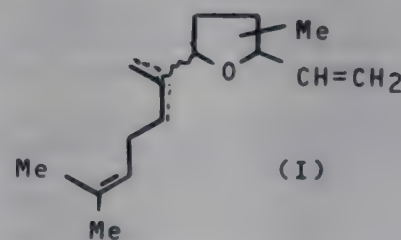
E13 (D23) (29.10.81) *EP--10-142 A23l-01/23 A61k-07/46 C07d-307/06 C11b-09

24.08.79 as 960514 Based on EPG010142 (047TM)

Sesquiterpenoid tetrahydrofuran derivs. of formula (I) are new. In (I), one of the dotted lines is an additional bond and the other is omitted. Pref., cpds. are 2-methyl-2-vinyl -5- (1'-methylene-5'-methyl-1-yl) tetrahydrofurans.

Prepn. of cpds. (I) comprises dehydration of corresp. 5'-ols or deacetylation of the analogous 5'-acetoxy cpds. A suitable reagent is POCl₃ in pyridine, or high temp. pyrolysis can be used. The intermediates are obtd. by a Grignard reaction using 4-methylpent-3-ene-1-yl bromide and 2-methyl-2-vinyl-5-acetyltetrahydrofuran, opt. followed by acetylation.

The prods. are used as odorant and/or flavouring agents and/or perfumes. (20pp)



NEXU- D13 40195 D/22 = EP --88-347
Fatty acid partial ester(s) of glycerol condensates - produced by reaction with glyceride(s) in tert. butanol solvent

NEXUS APS 01.11.79-DK-004638

C03 E17 (28.10.81) *WP8101-286 B01f-17/34 C07c-69

23.11.79 as 902109 (367DH) (E) No-Citns. E(AT CH DE FR GB NL SE)

Prepn. of partial esters (I) of glycerol condensates (II) is carried out by reacting (II) with glycerides (III) of 4-26C fatty acids in the presence of a basic catalyst, with the improvement that the reaction is effected in t.-butanol as solvent.

The catalyst is pref. an alkali metal base (esp. NaOH or K₂CO₃). (III) can be animal fats (esp. butterfat) or vegetable oils. (II) pref. have a viscosity of 700-1400 cP at 60 deg.C. The reaction is pref. effected at 60 deg.C or above (esp. at reflux temp.) with a (II):(III) wt. ratio of (20-70):(80-30), esp. (40-65):(60-35). The t.-butanol is pref. used in an amt. of 100-500 ml per 450 g of (II) + (III).

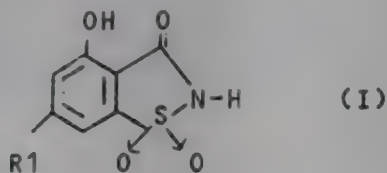
(I) are useful as emulsifiers, esp. for foodstuffs and animal feeds. The reaction can be effected at lower temps. than prior art solvent-free processes, thus improving the colour, aroma and flavour of the prod. and suppressing further condensn. of (II). (11pp)

THOM D13 79950 D/44 = EP --38-458
Sweetening agent benzothiazole derivs. - which are 4-hydroxy- and 4,6-dihydroxy-1,2 benzisothiazol-3(2H)-one 1, 1-dioxide and their salts

THOMAE K GMBH 19.04.80-DE-015113
B02 E13 (28.10.81) *DE3015-113 A231-01/23 C07d-275/06
06.04.81 as 102567 (280BZ) (G) ? Jnl. Ref E(AT BE CH DE FR GB IT LI LU NL SE)

4-Hydroxy-1,2- benzisothiazol-3(2H)-one 1,1-dioxides (I) and their physiologically tolerable salts with organic and inorganic bases are new, (where R1 is H or OH).

(I) are useful as sweetening agents. Their sweetening power is at least equal to that of currently used sweetening agents, their flavour is free from concomitant flavours or aftertaste, they have very good water solubility, they are stable to temperature and acids, and they are free from any toxicological or pharmacological effects and therefore absolutely safe to use. (72pp)



POPP/★ D13 81893 D/45 ★EP --38-489
Protein-contg. fodder prodn. - from suspended or dissolved organic substances in two stages of activation and settling followed by drying

POPPINGHAUSK 23.04.80-DE-015515
C03 (28.10.81) A23j-01 A23k-01 C02f-03/12 C02f-11 C12n-01 C12p-21
10.04.81 as 102734 (236RH) (G) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Method of obtaining protein-contg. animal fodder from organic substances dissolved and/or suspended in water utilizes at least two successive stages (I,II) in which biological treatment is carried out in an activating tank followed by a respective settling tank.

In the first stage (I) a larger proportion of the bacteria are protozoa; the sludge is removed intermittently and alternately from the first and second stages and is fed to a drier; from this a portion of the dried sludge is recycled back to the inlet of the stage from which it was obtd.

In at least one of the activation tanks, esp. that in the first stage (I), additives to promote the growth of microorganisms, esp. trace elements and/or minerals are added; after drying a chemical agent is added to the sludge to render the cell walls of the microorganisms brittle and/or break them down in some other way.

Pref., the starting material used is liq. manure at inlet the organic substances may be diluted with 2-10 (4-6) times their own quantity of water. In each stage, a proportion of the microorganisms and waste material may be recycled back to the inlet of the same stage, the remainder being used for producing fodder. The residual discharge from the second stage may pass to a biological sewage treatment plant. This may be followed by an ultraviolet disinfection plant.

Low energy cost and high prodn. of an easily digested fodder are achieved. An external water source, esp. of purified water, is not necessary. (19pp)

STAUF★ D13 81935 D/45 ★EP --38-603
Co-dried prods. contg. starch and protein derived compsns. - useful as humectants and flavour enhancers for foods esp. pet foods

STAUFFER CHEMICAL CO 02.03.81-US-236740 (17.04.80-US-141435)
C03 (28.10.81) A23j-03 A23k-01/18 A231-01/34
14.04.81 as 200431 (1248BZ) (E) No-Citns. E(AT BE DE FR GB IT NL)

Prods. showing reduced water activity comprise codried blends of a first compsn. comprising at least 65% of a derived protein-contg. compsn. (I) from plant or animal sources. Comspn. (I) has a molecular wt. below 30,000, a total Kjeldahl N content of 0.45-2.1 (at least 60% the N is non-protein N). First compsn. also contains 0.35% of (a) 1-15% gelatin or (b) 1-15% gelatin and 5-25% water-soluble polyphosphate (together not being over 35%) or (c) 0.5-5% gum, or their mixts.; and 0-30% whipping aid. All percentages are by wt. based on the total wt. of the first compsn. Together with 20-75% by wt., based on the dry wt. of the prod., of a starch that is soluble or swellable under the drying conditions.

The codried prods. are useful as humectants and flavour enhancers for foods and can be used as egg albumin extenders in soft meringues. They are bland to slightly salty and do not cause flavour problems, even when added to foods in large amounts. They are useful in intermediate moisture foods such as pet

foods. The first compsn. has similar properties and uses. (38pp)

KURE★ D13 81943 D/45 ★EP --38-628
De-N-acetylated chitin and fibrous collagen composite - useful as edible food casings, therapeutic agents, enzyme carriers etc.

KUREHA KAGAKU KOGYO 21.03.80-JP-036712 (21.03.80-JP-036711)

A11 B04 (A96 A97) (28.10.81) C081-05/08
20.03.81 as 301212 (1248BZ) (E) No-Citns. E(DE FR GB NL SE)
Composite material (I) comprises de-N-acetylated chitin (II) and fibrous collagen (III). The (III) may be crosslinked or acylated. Material (I) may also comprise gelatin and/or soluble collagen.

Material (I) is obtd. by contacting (II) with (III) in an acidic medium, then the mixt. is de-acidified. The gelatin and/or soluble collagen may also be present. Either (II) in aq. acid is mixed with an aq. dispersion of (III) or a material made of (III) is immersed in the soln. The acid is removed by evapn. or electrodeposition. The prod. may be crosslinked or the (III) may be crosslinked in a pre-treatment, e.g. by using glutaraldehyde, dialdehyde starch, etc.

(I) do not dissolve in aq. salt solns. and can have good mechanical strength that is not partic. reduced in hot water. They are not absorbed by living bodies, coagulate blood, resist attack by bacteria, possess film-forming ability and adhere closely to stuffed materials such as meat. They are useful for forming edible casing material for foods, to which they may be added in spherically shaped or fibrous form. They may be useful as prophylactic or therapeutic agents for (a) returning raised serum cholesterol levels to normal, (b) inhibiting rises in blood sugar levels, (c) removing growth-inhibiting substances, and (d) preventing cancer of the colon.

The material, esp. in film or fibre form is thrombogenic, but it may be treated with heparin to make it antithrombogenic for use in artificial skins, artificial kidneys and blood vessels, etc. Materials (I) may also be used to absorb proteins such as enzymes and micro-organisms, which may be in immobilised form. (39pp)

PAVL★ D13 81972 D/45 ★EP --38-684
Additive for improving whipping props. of egg whites - contg. whipping protein, thickening agent, and edible acid

PAVLOVA PANTRY MARK 21.04.80-AU-003204
(28.10.81) A231-01/32
16.04.81 as 301689 (478) (E) GB1463113 FR2215176 US4200663 DS2406376 US3219457 GB1194941 EP-12490 E(AT BE CH DE FR GB IT LI LU NL SE)

Additive for improving the whipping props. of an egg-contg. food prod. contains a whipping protein (I), a seaweed-derived thickening agent (II), and an edible acid (III). Pref. additives contain (by wt.): 2-5 esp. 3-4 pts. (I); 1.5 esp. 2-5 pts. (II); and 1-10 esp. 2-3 pts. (III); and opt. also 0.5 esp. 3-4 pts. gelatin or vegetable gum, 0-20 esp. 10-14 pts. cornflour, and 0-20 esp. 10-14 pts. glucose. Amts. of additive used are (all to 1200 ml. egg material); 3-20 pref. 5-10 g. with unpasteurised liq. egg; 7-40 pref. 15-20 g. with pasteurised liq. egg; and 10-70 pref. 25-35 g. with albumen and H2O.

The additive gives quicker whipping times of egg whites with more consistent results (esp. in the prepn. of pavlovas). In addn., the foam is more stable and can be left for a longer time before cooking. The additive allows the introduction of a variety of 'instant' powder mixts. for souffles, baked Alaskas, and pavlovas, etc. (24pp)

LAIT★ D13 81991 D/45 ★EP --38-732
Acidulated milk with low mineral content - made by treating fresh milk with cation exchange resin, useful for addn. to milk to form casein coagulate

LAITERIES BRIDEL E 31.03.81-FR-006470 (17.04.80-FR-008644)
(28.10.81) A23c-09/14 A23j-01/20

02.04.81 as 400526 (513HM) (F) No-Citns. E(AT BE CH DE GB IT LI NL SE)

Acidulated decationised milk is claimed having the same protein and lactose content as ordinary milk, but with a very low mineral content of less than 4 g/l, a Ca/P ratio of less than 0.5 and a pH of less than or equal to 3.8. The milk is obtd. e.g. by treating milk at 0-4 deg. C with a cation exchange resin in acid form until the pH of the milk is less than or equal to 3.8, esp. 1.5-3.5.

Pref. ion exchange resin is a polystyrene resin carrying sulphonic acid gps., with a gel or macroporous structure. The treatment is carried out e.g. by percolation or in counterflow using a vol. ratio of (pref. skimmed) milk to exchange resin of 5:1 to 15:1.

The decationised milk is esp. useful in the prodn. of casein and lactoserum by mixing ordinary milk with an amt. of the decationised milk sufficient to lower the pH of the mixt. to around the isoelectric point of milk casein (4.4-4.6) and heating to 10-60 deg. C to coagulate the casein in the mixt. followed by heating to 100 deg. C to sterilise the curd. (24pp)

the casein and the lactoserum.

Process allows rapid prodn. of cheese or curds from milk and avoids drawbacks associated with prodn. of casein by acidulation of milk with exchange resins using prior art processes. (26pp)

SAGM/ ★ D13 82019 D/45 ★EP --38-792
Mycotoxin-binding agent for addition to food- and feedstuffs - contg. a mixture of crosslinked vinyl-pyrrolidone homo:polymer and an inorganic substance with large internal surface

SAGMEISTER F 23.04.80-AT-002183

A97 C03 (28.10.81) A21d-15 A231-03/34 C081-39/06

01.04.81 as 890057 (280RH) (G) US2938017 DE2443530 DE2318446 DD-114343 E(AT BE CH DE FR GB IT LI NL)

New mycotoxin-binding mixt. contains (a) an inorganic substance with large internal surface and (B) a crosslinked homopolymer of N-vinyl-2-pyrrolidone.

Used for binding of mycotoxins from fungus-affected food- and feedstuffs in order to render them edible. The binding agent is pref. added to the food- or feedstuff before it is consumed, but may also be administered before or after consumption of the food- or feedstuff.

Pref. mixts. contain more than 50 (esp. 70-90, partic. 80) wt.% crosslinked N-vinyl-2-pyrrolidone homopolymer. Pref. inorganic substances are kieselguhr, synthetic silicic acid, silicates (such as magnesium or aluminium silicates, e.g. precipitated aluminium silicate, Al₂SiO₅), aluminium oxide and magnesium oxide. (36pp)

NEST ★ D13 82023 D/45 ★FR 2478-952
Textured protein prod., esp. of soya or fish - prepd. by treating protein in semipermeable cover with osmotic agent

SOC PROD NESTLE SA 31.03.80-CH-002522

(02.10.81) A23j-03

11.03.81 as 004861 (597HM)

Prodn. of textured protein prod. from a three-dimensional protein material, comprises exchanging the water in the material with an aromatic agent by wrapping the material in a semipermeable covering which is sealed and then immersing it in a soln. of an aromatic agent.

The process is applied e.g. to soya curds and fish fibres. It enables a compact texture. The prod. used in the prepn. of food prods, is neither deformed, disintegrated, nor dissolved in aq. environment. Also the prod. in the case of the above examples loses its soya and fishy taste respectively (13pp)

MILL/ ★ D13 82024 D/45 ★FR 2478-953
Animal feed from abattoir, dairy, preserving floating sludge - by submitting acid sludge to decantation, then mixing with nitrogenous substrate and premixes to give liquid or solid feeds

MILLET F 31.03.80-FR-007161

C03 (02.10.81) A23k-01

31.03.80 as 007161 (395HM)

Process for the production of animal feeds from mineral and organic by product floating sludges, suspended in agricultural-food industry effluents (esp. from abattoirs, preserving plants and dairies) and having pH 1.8-7, by submitting the floating sludges recovered from the effluents to at least one decantation, such that the dry material content of the decanted sludge is 8-12%; then mixing the decanted sludge with sufficient quantity of a substrate having a suitable dry material content so that the resulting food mixture has a dry material content of 25-50% and optionally adding other food compounds to give a feed material suitable for animals.

Preparation of animal feeds from organic/mineral by-products recovered from abattoir, preserving-plant and dairy effluents by flotation. (25pp)

LAND/ ★ D13 82025 D/45 ★FR 2478-954
Animal lick contg. magnesium sulphate and other salts - is prepd. by mixing powdered salts, addn. of water converting the mixt. to a solid licking stone

LANDRIVON H 26.03.80-FR-007259

C03 (02.10.81) A23k-01/17 C01f-05/40

26.03.80 as 007259 (395MR)

Mineral feed complement for animals, which contains Mg and is presented as a licking stone, is characterised in that at least part of the Mg in the original mixt. is in the form of magnesium sulphate. Pref. the compsn. contains dicalcium phosphate, sodium chloride, various metallic sulphates, magnesium oxide and 5.5-15% of magnesium sulphate. The compsn. comprises a powder mixture, which is converted to a solid body by dissolving the powder in 35-45% water.

Pref. compsns. contain as parts by weight CaHPO₄ 600, NaCl 210, MgO 80, MnSO₄ 100, ZnSO₄ 12, CuSO₄ 2 and flavours (minute quantities). The cpds. are mixed intimately in sacks e.g. 25 kg sacks. For use such as 25 kg sack may be placed in a bucket or tub, contg. about 10l of water, and after 48 hrs. forms a solid of suitable hardness.

Used as a mineral lick for animals, that is economic to produce and is transported as a powder, which may be converted to the solid licking stone by addition of water. (5pp)

VALB/ ★ D13 82026 D/45 ★FR 2478-955
Effervescent prod. contg. at least two reactants for aerated drinks - in frozen liq. form such that reactants cannot react

VALBONESI F 26.03.80-FR-006710

(02.10.81) A231-02/40

26.03.80 as 006710 (597HM)

Effervescent prod. contg. at least 2 reactants producing an effervescent effect is frozen in liq. form such that reactants are unable to react. An effervescent granule comprises the reactions encapsulated in a coating which gives delayed release of the reactants.

The prod is used to prepare aerated drinks. It enables instant aeration without any storage problem for the reactants, which normally required storage in anhydrous conditions. (7pp)

GOUP/ D13 58774 A/33 = GB 1601-656
Chewing gum contg. water soluble fluoride - xylitol, gum base and pref. sorbose or sorbitol

GOUPIL J J 04.04.77-FR-010051

B06 E34 (D21) (04.11.81) *BE-865-617 + A61k-07/18

03.04.78 as 012878 (931PW)

A chewing gum compsn. contains a chewing gum base free of alkaline-earth metals, or water-soluble fluorine-contg. salt, and xylitol opt. mixed with sorbose or sorbitol.

Pref. the xylitol content (plus opt. sorbose or sorbitol) is 45-90 wt.%, and the wt. ratio of xylitol to either sorbose or sorbitol is 1:10-10:1. The compsn. is opt. in tablet form contg. a fluorine content of 0.113-0.250 mg, and xylose (plus sorbose/ sorbitol) content of 0.250-2.40 g.

The compsn. prepd. is esp. used as a cariostatic agent, contg. a sweetening power free from cariogenicity. (5pp)

SCHR. D13 63836 A/36 = GB 1601-672
Non-cultured cheese substitute - contains solvated rennet casein, solvating agent, water, mild lipid esp. hydrogenated plant oil and flavouring agent

SCHREIBER L D CHEES 14.02.78-US-877071 (28.02.77-US-772587)

(04.11.81) *DE2808-303 A23c-23 + A23j-03

24.02.78 as 007498 (931PW)

A non-cultured, simulated food prod. having the texture, body and taste of cheese, is a homogeneous mass contg. 25 wt.% or more of previously dry, but solvated edible rennet casein, an edible solvation agent in amt. 2-12 wt.% (w.r.t. the casein), water, a bland edible oil or fat, and amts. of suitable flavouring agents to impart the flavour.

Pref. the casein is present in amt. 30-45 wt.%, and the oil or fat is a hydrogenated vegetable oil present in amt. 7-55 wt.% (w.r.t. the compsn.) having a m.pt. of 50-100 deg.F and a solid fat index of less than 6 at 92 deg.F.

The rennet casein used is inexpensive and produces a satisfactory food prod., which does not develop objectionable flavours and odours. (5pp)

POLA D13 72685 A/41 = GB 1601-933
Hydroxy-di:alkyl-oxo-furan(s), produced synthetically - are identical with those produced from naturally grown sources, used as flavour improvers

POLAK'S FRUTAL WORKS INC 20.12.77-GB-052936

(31.03.77-GB-013636)

E13 (04.11.81) *BE-865-464 C07d-307/32

28.03.78 as ----- (974MR)

4-Hydroxy-5-alkyl -3-oxo-2H-furans having a 1-6C alkyl gp. are prepd. by (a) condensing a di(1-4C) alkyl-(1-6C) alkyl diglycolic acid ester with an oxalic di(1-4C) alkyl ester in the presence of an alkaline condensing agent; (b) hydrolysing the carbalkoxy gp. of the prod.; (c) decarboxylating; and (d) recovering the prod.

Pref. the condensation prod. of (a) is alkylated before (b).

Prods. are intermediates for flavouring agents. (10pp)

POLA D13 72685 A/41 = GB 1601-934
Hydroxy-di:alkyl-oxo-furan(s), produced synthetically - are identical with those produced from naturally grown sources, used as flavour improvers

POLAK'S FRUTAL WORKS INC 20.12.77-GB-052936

(31.03.77-GB-013636)

E13 (04.11.81) *BE-865-464 A231-01/22 C07d-307/12

28.03.78 as ----- Div.ex 1601933 (974MR)

2-Carbalkoxy-3,4-dihydroxy -5-alkyl furans in which the alkoxy is 1-4C and the alkyl 1-6C are new.

Pref. cpds. are prepd. by condensing a di(1-4C)alkyl-alpha -(1-6C)alkyl diglycolic acid ester with an oxalic acid di(1-4C)alkyl ester in the presence of an alkaline condensing agent and opt. alkylating with a 1-4C alkyl halide.

Prods. are flavourings and intermediates for flavourings. (6pp)

UNIL D13 87073 A/38 = GB 1602-104
Prepn. of composite foods, esp. sweets such as peach melba - by adding extrudable food to calcium alginate or pectate about to gel
UNILEVER NV 17.03.77-GB-011489
(04.11.81) *BE-364-990 A23g-09 A23l-01/04
16.03.78 as ----- (973TM)

Composite food prods. are prepd. by (a) dosing incipiently gelling Ca alginate or Ca low-methoxy pectate into a mould and (b) dosing a portion of an extrudable foodstuff onto the still incipiently gelling Ca cpd. to form a depression in which the latter sits.

Pref. the mould is a container in which the prod. is finally packaged. (4pp)

UNIL D13 89156 A/39 = GB 1602-105
Ice cream confection - with jelly in shape of half a fruit and hollow filled with ice cream in plastic goblet
UNILEVER NV 25.03.77-GB-012684
Q34 (04.11.81) *DE2725-269 A23g-09 + A23l-01/04
22.03.78 as ----- (974TM)

Novel composite ice confections comprise a gel and ice confection in which the gel has the approx. shape of a half fruit with a depression in its flat upper surface. The ice confection is located positively engaging the depression.

Pref. the depression is irregular and the ice fits the irregularities. Pref. the depression simulates the hole left by a removed stone. (3pp)

BUTL-★ D13 82117 D/45 ★GB 2074-435
Treating of cheese offcuts - by comminution followed by pressing in evacuated environment to form reconstituted block
BUTLAND INDS LTD(SCHR-) 18.04.80-NZ-193481
P13 (04.11.81) A01j-27/04 A23c-19/08
09.04.81 as 011183 (295BZ)

Cheese is fed to a comminutor, the resultant pieces being pressed in an evacuated environment so that a bonding or agglomeration occurs between adjacent pieces to form a reconstituted cheese block. Pref. the pieces are comminuted by forcing the cheese through an apertured plate over the exit surface of which passes a rotating cutter. The pieces are pref. pressed through a converging nozzle into a chamber where a hydraulically driven ram compresses the cheese and passes it out through an exit aperture which has a smaller cross-sectional area than that of the ram chamber.

Used particularly for processing cheese off-cuts. (6pp)

HOWA/★ D13 82118 D/45 ★GB 2074-436
Expanded cereal snack foods - comprising cooked dough contg. gelatinised starch and bran
HOWARD AN 13.04.81-GB-011513 (26.04.80-GB-013858)
(04.11.81) A23l-01/10
13.04.81 as 011513 (367BZ)

Expanded snack food with an oil or fat content of at least 5 wt.% comprises discrete cooked portions of a dough comprising gelatinised starch and added cereal bran (excluding rice bran). The snack food has a high fibre content while having a palatable fried flavour and a crisp-like texture. It has a lower fat content and thus a lower calorific value than similar products not contg. bran. (7pp)

TRUB★ D13 82119 D/45 ★GB 2074-437
Porous absorbent sheet impregnated with e.g. biocide - for application to plant wounds
TRUBENISED GB LTD(PREP-) 24.04.81-GB-012761 (25.04.80-GB-013687)
C03 (04.11.81) A01n-03 A23b-07
24.04.81 as 012761 (476BZ)

A wound in plant matter is treated by application to it of a porous absorbent sheet material having on at least one surface an intimate mixture of biologically active material and a Latex coagulant. A suitable sheet comprises a porous web having, on one or both surfaces, a dry coating comprising an intimate mixture of a water-soluble adhesive polymer and the two materials already specified, or with the coagulant absent.

Plant wounds caused e.g. when certain fruit and vegetables are harvested or when a living tree or bush is cut tend to bleed juices, latex and other plant fluids which can spoil the appearance of the crop e.g. bananas, and also act as a point of attack for pathogenic organisms such as *Fusarium semitectum*, and the present method is an improvement in their treatment over the known direct application of e.g. a fungicide after washing e.g. of banana hands, or the dipping of the crown of banana hands into an aluminium sulphate soln. Coated webs according to the invention in which the active material is a bacteriostat and/or bactericide may also be used as sterile medical dressings. (4pp)

BENC★ D13 82140 D/45 ★GB 2074-532
Tea-bags made of treated paper - contg. sequestering agent for polyvalent metal ions

BENCKISER-KNAPSACK 29.04.80-DE-016416
E34 Q34 (E19) (04.11.81) B65d-81/34

05.03.81 as 006928 (367BZ)

Tea-bags are formed of paper contg. a substance (I) capable of complexing polyvalent metal ions, where (I) is pref. an alkali metal polyphosphonate and/or a hydroxy carboxylic acid or an alkali metal salt thereof. (I) is suitably a polyphosphonate of formula $(M)n + 2(P)n(O)3n + 1$ (where M is Na or K and $n = 2-80$) and/or tartaric, citric or gluconic acid or their alkali metal salts. The paper for one tea-bag pref. contains 0.5-4.0 mg of (I), which can be incorporated during mfr. of the paper or by impregnation of the paper.

(I) softens the water in contact with the tea-bag, thereby improving the flavour and appearance of the tea infusion. (3pp)

ODAI/★ D13 82143 D/45 ★GB 2074-558
Altering the compsn. of peat to make fertiliser or animal feed - by using a mixt. with cereal to cultivate edible mushrooms

ODAIRA K 28.03.80-JP-040843 (21.03.80-JP-036527)
C03 (C04) (04.11.81) A23k-01 C05f-11/02

19.03.81 as 008687 (476KB)

A livestock feed or fertiliser is made by altering the compsn. of peat by mixing it with 10-40% of its wt. of cereals or brans, using this mixture to culture the hyphae of an edible mushroom, germinating the resulting fruit bodies and removing these from the culture bed to leave a residue which may be crumbled and used as livestock feed, or further fermented for use in a fertiliser.

The altered peat contains very little indigestible matter such as imide fibrous matter and lignin and has an increased content of soluble nitrogen-free substances. (5pp)

BUHL★ D13 82192 D/45 ★GB 2074-761
Control of gap width between two rolls - initially by variation in roll temp. but if insufficient by pressure variation

BUHLER GEBR AG 30.04.80-DE-016786
J02 T06 X25 P41 (D21) (04.11.81) B02c-04/36 G05d-05/02

28.04.81 as 012978 (295AT)

The gap width between two parallel cooperating rolls in a multiple roll mill is regulated. The rolls contain variable intensity heating and/or cooling appts. and can be clamped together or moved apart by a hydraulic piston-in-cylinder arranged between adjacent ends of the rolls and subjected to a control pressure.

A predetermined rolling pressure and roll gap are selected for a particular job. On change of the gap width during the rolling process, the intensity of cooling and/or heating is first adjusted without changing the rolling pressure to aim to restore the predetermined roll gap. If the range of temp. variation is not sufficient, the rolling pressure is charged to restore the gap width.

The multiple roll mill may have from three to five rolls and serve to crush, disperse, mix or homogenise pasty masses such as chocolate. Similar mills can also be used to process printing dies, paint colourings, pigment dispersions, crayon compsns, coating compsns, toilet soap, confections etc. (6pp)

FIGL-★ D13 D/45 ★IT 1052-987
Shelling and sepg. machine for almonds
OFF MECC FIGLIANG 09.12.75-IT-002124
(31.08.81) A23n

FRRN/★ D13 D/45 ★IT 1052-989
Almond flavoured milk-based drinks prepn.
FRRNAP 22.12.75-IT-002127
(31.08.81) A23l

KYOD★ D13 82355 D/45 ★J5 6121-436
Cattle feed compsn. - contains lower carboxylic acid or salt to improve taste and provide growth promoting effect

KYODO SHIRYO KK 29.02.80-JP-025622
C03 (24.09.81) A23k-01/16 A61k-31/19

29.02.80 as 025622 (5PW)

Cattle feed compsn. contains at least one kind 4-6C carboxylic acid or salt. Feed which suits cattle's taste and shows growth-promoting effect, can be obtd. The feed also decreases the stress of piglets and calves at weaning. Change to combined feed from mother's milk can be effected smoothly.

Specifically the carboxylic acid is malic acid, citric acid, tartaric acid, gluconic acid, succinic acid or fumaric acid. Usually the acid is used in amt. of 0.001-5 (0.05-2.0) wt.% in the cattle feed. (4pp)

HIM-★ D13 82356 D/45 ★J5 6121-441
 Growth promoting fish-food additive - contg. carnitine or deriv. and (in)organic metal salt
SHIMAKYU YAKUHIN KK 27.02.80-JP-024343
C03 (24.09.81) A23k-01/18
 27.02.80 as 024343 (5AT)
 Additive contains (a) carnitine or its deriv. and if necessary (b) at least one opt. inorganic metal salts.
 The additive is combined 0.001-1.0 w/w% as carnitine in feed. As metal salt calcium carbonate, calcium lactate, ferric citrate, ferric lactate, etc. can be used and they are combined 0.001-5.0 w/w% in feed. Carnitine can be obtd. either by extracting it from muscle or liver of animals, animal meat extract, microbial body, etc. or by synthesis. Carnitine deriv. is pref. carnitine chloride or acetyl carnitine.
 Carnitine and its deriv. promote the growth of fishes and improve the resistance of fishes to disease. (8pp)

TOKU★ D13 82357 D/45 ★J5 6121-444
 Elastic gelatinous substance prepn. - by adding calcium salt to aq. salt to aq. soln. of polysaccharide prepd. from *Alcaligenes faecalis*
TOKUYAMA SODA KK 27.02.80-JP-022646
(D16) (24.09.81) A23l-01/04 C12p-19/04
 27.02.80 as 022646 (5PW)
 The method comprises adding soluble calcium salt to aq. soln. of the polysaccharide prepared from *Alcaligenes faecalis*. Gelatinous substance which is elastic and has excellent in form-holding property, can be prepared without using acid and/or heating. The method can be applied for preparing jellies.
Alcaligenes faecalis can be cultured at 25-35 deg.C at pH 6-7 aerobically for 3-4 days. After the culture the polysaccharide in the culture medium can be sepd. by removing the microbial body and precipitating it with water soluble organic solvent such as ethanol, methanol, acetone etc. The polysaccharide is formed into aq. 0.01-0.05 wt.% soln. and soluble calcium salt such as calcium chloride, calcium acetate, calcium lactate, etc. is added in amt. of above 0.1 wt.% to the soln. (4pp)

AJIN★ D13 82358 D/45 ★J5 6121-453
 Sepn. of stevioside and rebaudioside A - by crystallising mixt. in aq. (m)ethanol, adding obtd. crystals to water and recovering solid stevioside
AJINOMOTO KK 27.02.80-JP-023755
B03 E13 (24.09.81) A23l-01/22 C07h-01/08
 27.02.80 as 023755 (5RP)
 The method is effected by (a) crystallising the mixt. of stevioside and rebaudioside A either in aq. 45-80% methanol soln. or in aq. above 85% ethanol soln. (b) adding thus obtd. mixt. of beta-form crystalline stevioside and alpha-form crystalline rebaudioside A in water, (c) dissolving rebaudioside A alone in water and (d) recovering undissolved stevioside.
 The sweet substance extracted from the plant, *Stevia rebaudiana* Bertoni is the mixt. of stevioside and rebaudioside A and the sweetness of rebaudioside A is not only stronger, but also better than that of stevioside. The solubility of stevioside in water is 5-10 g/100 g water for alpha-form and 0.2 g/100 g water for beta-form and that of rebaudioside A is 5-10 g/100 g water for alpha-form and 0.3 g/100 g water for beta-form. (6pp)

AJIN★ D13 82359 D/45 ★J5 6121-454
 Sepn. of stevioside and rebaudioside A extracted from *Stevia* plant - by dissolving in aq. soln. contg. more than 70 per cent ethanol, to separate out rebaudioside A
AJINOMOTO KK 27.02.80-JP-023756
B03 E13 (24.09.81) A23l-01/22 C07h-01/08
 27.02.80 as 023756 (5GW)
 The process involves dissolving a mixt. of stevioside and rebaudioside A in an aq. soln. of more than 70% ethanol and crystallising out rebaudioside A selectively from the soln. Highly pure rebaudioside A can be sepd. effectively in high yield by this simple process.
 The sweet substance extrd. from the plant *Stevia rebaudiana* Bertoni is a mixt. of stevioside and rebaudioside A and the sweetness of rebaudioside A is not only stronger, but also better than that of stevioside. The common solubility of stevioside and rebaudioside A in aq. ethanol soln. depends on the concn. of ethanol when the soln. contains more than 80% ethanol, rebaudioside crystallises out preferentially. Thus obtd. crystalline prod. has rebaudioside A content above 80% and stevioside content below 15%. The mother liquor has, of course, higher stevioside concn. than initially. (4pp)

AJIN★ D13 82360 D/45 ★J5 6121-455
 Crystallisation sepn. of stevioside-rebaudioside A mixt. - by dissolving in methanol soln. and selectively crystallising stevioside from soln.
AJINOMOTO KK 27.02.80-JP-023757
B03 E13 (24.09.81) A23l-01/22 C07h-01/08
 27.02.80 as 023757 (5AS)
 Process comprises dissolving a mixt. of stevioside and rebaudioside A either in aq. 40-70% methanol soln. or in aq. above 85% methanol soln. and crystallising out stevioside selectively from the soln. The sweet substance extracted from the plant, *Stevia rebaudiana* Bertoni is a mixt. of stevioside and rebaudioside A and the sweetness of rebaudioside A is not only stronger, but also better than that of stevioside.
 Stevioside and rebaudioside A can be sepd. effectively in a simple process utilising the difference in the solubility in aq. methanol soln. (3pp)

NIPS★ D13 82401 D/45 ★J5 6121-634
 Oxygen absorbent for protecting food - comprises iron powder and metal halide-coated filler, e.g. diatomaceous earth
NIPPON SODA KK(NOKS) 29.02.80-JP-025946
A97 E36 G04 (24.09.81) A23l-03/34 B01j-20/02
 29.02.80 as 025946 (34WB)
 Agent for use in protection of food and as anti-rusting agent for metal products, etc., comprises Fe powder and a coated filler obtd. by coating 100 pts. wt. filler, e.g. diatomaceous earth, boehmite, kaolin, bentonite, zeolite, activated clays, cellulose, activated charcoal, carbon black, etc. with 0.05-200 pts. wt. metal halide, e.g. NaCl, KCl, NaBr, CaCl₂, MgCl₂, ZnCl₂, FeCl₂, FeCl₃ and COCl₂ etc. followed by drying.
 Opt. a binder, e.g. ethylene glycol, trimethylol propane, glycerin, glucose, PVA etc. may be used in combination with the metal halide to suppress generation of H₂. The amt. of binder is 0.05-50 pts. wt. per 100 pts. wt. filler. The iron powder pref. has grain size of 30-300 mesh. Drying is carried-out until water content of the coated filler becomes less than 3 wt.%, pref less than 1 wt.%. (5pp)

CHCC★ D13 82791 D/45 ★J5 6123-929
 N-Hexenyl aldehyde purificn. by mixing with radical generator - and dienophile after addn. of water, used to remove 2-vinyl crotonaldehyde
CHISSO CORP 06.03.80-JP-028429
C03 E17 (D23) (29.09.81) A01n-35/02 A23l-01/26 A61k-07/46
C07c-45/80 C07c-47/21
 06.03.80 as 028429 (117NS)
 n-Hexenyl aldehyde present in a mixt of n-hexenyl aldehyde and 2-vinylcrotonaldehyde, or a n-hexenyl aldehyde-rich fraction obtd from fractionation of a mixt from the dehydration of the aldol condensn prods of acetaldehyde and n-butylaldehyde, is purified by a procedure in which the mixt is mixed with a radical-generating agent, e.g. at least one from diacyl peroxides, peroxy dicarbonates, peroxy esters, dialkyl peroxides, azonitriles, and acylsulphonyl peroxides, serving as catalyst, in the of 1 to 50 wt % a dienophile, e.g. maleic anhydride, etc at a temperature of 30 to 160 deg C after the addn of water or steam into the reaction system in order to treat the said 2-vinylcrotonaldehyde present. The mixt is then subjected to distn.
 The n-hexenylaldehyde, which is useful as an attractant for insect pests in addn to an effective fragrant component, can be sepd in a higher purity with a high efficiency. (4pp)

CHCC★ D13 82792 D/45 ★J5 6123-930
 N-Hexenyl-aldehyde sepn. from mixt. - by oxidn. and polymerisation of impurity e.g. 2 vinyl-crotonaldehyde, addn. of water (vapour) to mixt., and distn.
CHISSO CORP 06.03.80-JP-028430
C03 E17 (D23) (29.09.81) C07c-45/78 C07c-47/21
 06.03.80 as 028430 (117JB)
 A mixt. contg. n-hexenylaldehyde (HE) and 2-vinylcrotonaldehyde is purified by contacting with oxygen (contg) gas, e.g., air, etc., at 10-100 deg.C. in the presence of a transition metal salt, e.g. a salt of Fe, Cu, Co, Ni, Mn, etc. The 2-vinylcrotonaldehyde is oxidised and polymerised, the mixt. is mixed with water (vapour) in an amt. 0.1-10 times reaction liquid wt. and then subjected to distn. Method also applies to rich fraction obtd. from fractionation of a mixt. from the dehydration of the aldol condensation prod. of acetaldehyde and n-butylaldehyde.
 The HE which is an attractant for insects as well as a fragrant component for foods, etc., can be effectively sepd. with higher purity. (5pp)

TAKS D13 93408 X/50 = J8 1043-067
Purified laccase acid soln. of use in colouring drinks - prepd. by heating a soln. of laccase acid in glycerin, propylene glycol or ethanol with organic acid

TAKASAGO PERFUMERY KK 22.04.75-JP-048231
E24 (08.10.81) *J51124-120 C09b-61 + C09b-01/02

22.04.75 as 048231 (BZ)

Laccase acid (deep scarlet dye extracted from resinous substance secreted by *Laccifer Lacca* Kerr) is dissolved in glycerin, propylene glycol or ethanol by warming, the soln. is mixed with organic acid aq. soln. and stirred by heat, and the ppte. formed by allowing it to stand in cold state is removed, to obtain a purified laccase acid soln.

The object soln. does not form ppte. when used for colouration of foods requiring clarity such as fruit juice drink, consequently it can be used in clear rent foods such as orangeade or citrus system drinks without impairing their commercial value. (J51124120) (3pp)

NORQ D13 21190 C/12 = J8 1043-212
Thick malt syrup contg. cyclodextrin prepn. - by reacting starch with cyclodextrin-synthesising enzyme absorbed on starch, autoclaving obtd. soln. and reacting with further enzyme

NORIINSHO KK 25.07.78-JP-090000

(D16 D17) (09.10.81) *J55019-013 A231-01/09 + C12p-19/18

25.07.78 as 090000 (5AS)

Method comprises (a) reacting starch with the cyclodextrin-synthesising enzyme which is previously adsorbed on starch, (b) autoclaving thus liquidified starch soln. and (c) reacting it again with the cyclodextrin-synthesising enzyme adsorbed on starch.

Method provides 'mizume' contg. cyclodextrin (CD) partic. alpha-CD and prod. has excellent water solubility it can be widely used effectively. It can be spray-dried to powdery 'mizume' and can be used as stabiliser, flavour-holding agent, emulsifier, etc.

Prepn. of alpha-CD-synthesising enzyme had been difficult. Recently it has been found that the enzyme can be prepd. using *Bacillus macerans*. Usually potato starch, wheat starch or corn starch are used as the absorbent for CD-synthesising enzyme. (J55019013) (3pp)

SANE D13 24593 C/14 = J8 1043-261
Edible red dye mfr. from red cabbage - by extracting using water or alcohol contg. little potassium sulphite, then concentrating eluate

SAN EICHEM IND KK 11.08.78-JP-098538

(12.10.81) *J55025-460 C09b-61

11.08.78 as 098538 (117AS)

Mfr. of an edible red dye comprises immersing purple cabbage in water contg. less than 1% potassium sulphite or an aq. soln. contg. less than 1% potassium sulphite and less than 40% of an alcohol to elute red dye present in the purple cabbage, and then the obtd. eluate is mixed with H₂SO₄ in an amt. equiv. in mole to potassium present in the eluate and then concentrated to over 30% alcohol-contg. aq. soln. or the eluate is concentrated and then mixed with H₂SO₄ in an amt. equiv. in mole to potassium present to obtain over 30% alcohol-contg. aq. soln.

The edible red dye soln. is of very clear red or reddish purple colour when colouring drinking water and is very stable against acid and alkali, oxidation, heating etc. as well as being harmless to human body and animals. (J55025460) (3pp)

FUJI/ D13 81754 C/46 = J8 1043-331
Citrus fruit jam prepn. - involves heating the fruit e.g. orange, without skin in a soln. contg. sugar(s) and methoxylated pectin, and gelatinising

FUJII T 28.03.79-JP-035528

(12.10.81) *J55127-962 A231-01/06

28.03.79 as 035528 (42TM)

The fruit-jam (I) is prepd. by heating endodermis-removed citrus fruit in a concd. aq. soln. (II) contg. sugars and slightly methoxylated pectin (III) at 70-90 deg.C for 2-4 hrs. and making it gelatinised upon addn. of a concd. soln. (IV) contg. citrus fruit juice, sugar, pectin, and organic acid, followed by boiling.

Mandarin orange, valencia orange, summer orange, etc. are pref. used as (I). (II) should contain 700-900 g/l., e.g. (850 g/l) of 1 or more of sucrose, glucose, invert sugar, fructose and 2-4 g/l e.g. (3 g/l) of (III). (IV) is prepd. by mixing 750 pts.wt. of fruit juice, 100 pts.wt. of sugars, 8 pts.wt. of pectin, and, if necessary, 1-1.5 pts.wt. of ascorbic acid and 2-2.5 pts.wt. of polyphosphate, contg. it until the Brix reaches 35 and adding 900 pts.wt. of sugars. The wt. ratio of (II) to (III) is 1.1.5 to 2.0. (J55127962) (2pp)

SEVE-★ D13 82811 D/45 ★ J8 1043-332
Pretreatment of grain with alcohol - involves contacting grain with alcohol vapour followed by mixing and heating to remove di:methyl sulphide (J5 22.10.80)

SEVEN RICE KOGYO KK 06.04.79-JP-041122

(12.10.81) A231-01/10

06.04.79 as 041122 (22RP)

Grain is contacted with heated alcohol vapour. Grain is mixed with alcohol and the mixt. is heated to vaporise the alcohol. Dimethyl sulphide contained in old grain can be removed. (J55015553) (2pp)

DNIN D13 52526 C/30 = J8 1043-357
Highly pure alcohol-resistant phycocyanin prepn. - useful as safe, natural blue colourant for foods

DAINIPPON INK CHEM KK 06.12.78-JP-150020

E24 (12.10.81) *J55077-890 C12p-01 C12r-01/89

06.12.78 as 150020 (5BZ)

The method comprises treating the phycocyanin which is extracted from Cyanophyta and refined with protease at 20-50 deg.C for 10-60 mins.

Phycocyanin is protein colourant composed of phycocyanobilin (chromatic gp.) and protein through peptide bond. By treating it with protease for decomposing the protein part, alcohol resistance can be given to phycocyanin. The starting phycocyanin is that prepd. from Cyanophyta of *Spirulina* and should have purity more than 55%. Desirable phycocyanin concn. in the aq. soln. is less than 8% (less than 4%), and its pH is previously adjusted to 6-8 with phosphoric acid or citric acid. Protease is used in amt. 0.02-1.0% of the solid in aq. soln. After the enzymic treatment, the soln. is desirably treated through ultra-filtration or reverse osmosis for fractionating the phycocyanin having proper mol. wt. range and the enzyme and unreacted high mol. phycocyanin can be recovered. (J55077890) (4pp)

BRIM D13 22772 V/12 = J8 1043-480
Gentamycin derivs. and addition salts thereof - useful as antibacterials and inters

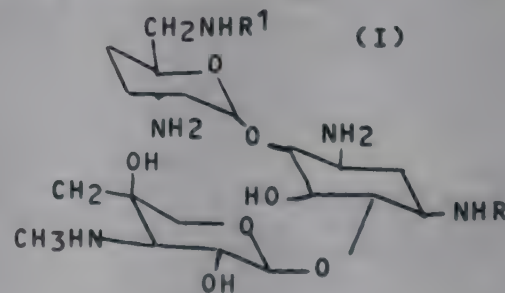
BRISTOL MYERS CO 06.11.72-US-303741

B03 C02 (13.10.81) *US3796-699 A61k-31/71 C07h-15/22

05.11.73 as 123332 (MR)

Title cpds. have formula (I) or are acid-addition salts thereof where (a) R is L-(-)-gamma-amino-alpha-hydroxybutyryl or L-(-)-gamma-benzoyloxycarbonyl-amino-alpha-hydroxy butyryl and R1 is H or benzoyloxycarbonyl; or (b) R is H and R1 is benzoyloxycarbonyl.

They are prepd. by reacting gentamycin C1C (I) where R:R1 is H) with N-benzoyloxycarbonyloxy-succinimide to give (I) (b), reacting this with the N-hydroxy-succinimide ester of L-(-)-gamma-benzoyloxycarbonyl amino-alpha-hydroxy-butyric acid to give (I) where R1 is benzoyloxycarbonyl and R has the second meaning under (a), and then subjecting this to hydrogenolysis to give 1-(L-(-)-gamma-amino-alpha-hydroxy butyryl)- gentamycin C1a, which has antibacterial activity comparable to that of gentamycin C1a. (J49100053) (19pp)



HONS D13 37022 X/20 = J8 1043-705
Acid milk separation and concentration - from e.g. lactic acid fermentation, by introducing inert gas and allowing to separate

YAKULT HONSHA KK 26.09.74-JP-109926

(14.10.81) *J51038-460 A23c-01 A23c-09/12 + A23c-21

26.09.74 as 109926 (NS)

Acid milk of pH 5.4-4.0 is obtd. from animal milk and/or bean milk, by lactic acid fermentation or by addn. of org. acid or mineral acid to milk. Inactive gas is mixed uniformly with the obtd. acid milk at 10-40 deg.C and allowed to stand at 10-40 deg.C and the end allowed to separate into whey and acid milk conc.

The operation can be carried out under conditions isolated from the atmosphere, and provided the air to be mixed with acid milk is pasteurised, the whole process can be practiced hygienically. Obtd. acid milk conc. is rich in nutritive ingredients and has high protein concn. (J51038460) (3pp)

NISW ★ **D13** 82836 D/45 ★ J8 1043-708
Improving properties of granular soybean protein - by adding citric acid to defatted material to deodorise it (J5 21.05.81)
NISSHIN OIL MILLS KK 17.10.79-JP-132877
(14.10.81) A23j-03
17.10.79 as 132877 (22DH)
In prepn. of granular soybean protein in the conventional manner, citric acid is added to the starting defatted soybean. The odour of soybean can be removed without damage to the taste. (J56058460) (3pp)

WILL/ **D13** 45906 A/26 = NL-168-116
Mixer extruder unit for shaped pieces of dough - makes croquettes and french fried potatoes, etc. from powder
WILLEMSEN WH 22.02.77-NL-001870
P28 (16.10.81) *BE-864-133 A21c-11/18 + A21c-01/02
22.02.77 as 001870 (160TM)
The equipment produces bakable blocks etc. of mashed potato by mixing material in powder form and water to produce a stiff mash, which is then pressed through a shaping plate. The two ingredients are delivered into the top of an open cylinder in which they are mixed, a piston forcing the prod. down through the shaping plate at the bottom.
The mixing mechanism is mounted above the piston and moves up and down with it, a passage for the material being formed in the piston and/or the cylinder and shut by a non-return valve operated by pressure difference. As the piston rises, the liq. mixt. formed above it is drawn down into the pressure chamber. (5pp)

KONN **D13** 36950 A/21 = NL-168-119
Treating fruit and vegetables with fatty acid saccharose ester - as aq. solns., emulsions or suspensions to improve storage stability (BE 16.5.78)
GIST-BROCADES NV 17.11.76-GB-047952
E13 (16.10.81) *DE2751-394 A23b-07/16
15.11.77 as 012533 (913NS)
Bananas are treated to improve their storability and/or reduce loss of moisture using an aq. emulsion of coating agent. The emulsion contains 0.2-5 wt.% of saccharose ester(s) of fatty acid(s), prepd. by esterifying a natural triglyceride with saccharose.
Pref. the mixt. comprises 0.5-3 wt.% saccharose ester, 0.1-1 wt.% monoglyceride, 0.1-1 wt.% diglyceride and 0-2 wt.% triglyceride. Esp. the monoester constitutes more than 60 wt.% of the mixt. The treated fruit ripen more quickly and are less susceptible to bruising and damage. (7pp)

MERE **D13** 14041 A/08 = NL-168-120
Dietetic granular albumin food prod. - prepd. by mixing curdled milk casein granulating and drying
MERCK PATENT GMBH 20.08.76-DE-637426
(16.10.81) *BE-857-948 A23c-23
19.08.77 as 009212 (913NS)
Granular dietary food is made from fatty-free or fat-reduced curdled milk. It is produced by kneading 2-5 pts. wt. casein with 5 pts. wt. curdled milk with a water content of 65-85 wt.%. The mixt. is allowed to swell for 10 min. to 3 hrs. and then granulated and dried to a particle size of 0.5-5 mm.
The new prod. is suitable for slimming diets, and the amt. used is readily varied according to the desired protein content, while maintaining acceptable physiological properties. (4pp)

OENO **D13** 20147 S/11 = NL-168-121
Improvements in the flavour of foodstuffs
GENERAL FOODS CORP 20.10.69-US-867877 (11.09.69-US-857227)
E13 (16.10.81) *BE-756-028 A23l-01/23
29.05.80 as 003114 Div ex 11.9.70-013472 (913NS)
Flavour and aroma of coffee, coffee-contg. prods. or prods. with a coffee aroma, are improved by incorporating 0.75-1200 pp milliard of a mixt. of trans-2-nonenol and/or trans-2-nonenal and 2-methoxy-3-isobutyl pyrazine.
The additive can be used with e.g. decaffeinated coffee, spray- or freeze-dried instant coffee, coffee ices, coffee-flavoured opt. carbonated drinks, cream and granary prods., liqueurs and confectionery. It is of esp. use with coffee (extract) having a high Robusta coffe content. (5pp)

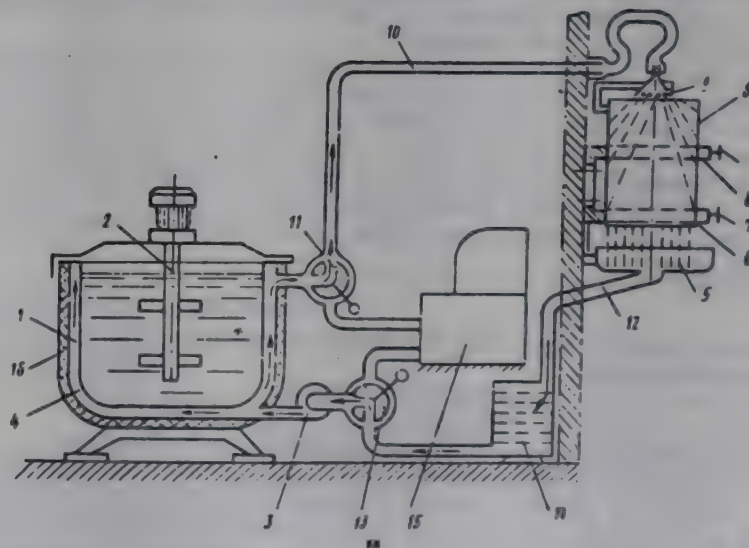
TAKE **D13** 07035 T/05 = NL-168-328
Drying granular foodstuffs additives - with gentle agitation and upward flowing hot gas without fluidisation
TAKEDA CHEM IND LTD 17.07.70-JP-062965
B07 Q76 (16.10.81) *DE2135-787 F26b-03/06 + C13f-05 F26b-11/22
19.07.71 as 009923 (913NS)
Granular or crystalline material is dried in a rotating drum while passing a hot gaseous drying agent through it. The drum is

rotated at 8-40 r.p.m., and the gas feed velocity is below the min. but at least half of the min. fluidising velocity for the material.

The temp. of the gas is such that the chemical properties of the material are unaffected. (8pp)

JELK/ **D13** 75799 Y/42 #SU-803-84
Increasing digestability of cellulosic plant material - by pressure cooking with aq. nitric acid
JELKS J V 02.02.76-US-654555 (31.08.77-SU-519878)
C03 (08.02.81) *US4053-645 A23k-01/12
31.08.77 as 519878 (70VE)
Cellulosic vegetable materials are converted into fodder by comminution, moistening, mixing with a soln. of a mineral acid, heating under elevated press. and neutralising the prod. The assimilability of this prod. is increased by adding HNO₃ to pH 1-3 and carrying out the thermal treatment at 168-178 deg.C. under press. of 7-8.76 kg/sq.cm. for 30-60 min.
Pref. 0.2-2.8% of HNO₃ is added. Before the thermal treatment up to 0.1% of iron is pref. added as a catalyst. The moisture content of the starting material is pref. adjusted to 25-50%. The neutralisation of the prod. is pref. carried out with ammonia to pH 4-7. In the case when the starting material has low acidity, HNO₃ is mixed with a non-oxidising mineral acid, and the pH is adjusted to 1-3. In this case, H₃PO₄, HCl, H₂SO₄ or CH₃COOH is used. A suitable ratio of these acids to HNO₃ is determined by the yeast test. In an example, fodder mix contains 40 kg. of wood treated as above, 40 kg. of grain, 8 kg. of soybean, 1.2 kg. of urea vitamins and trace elements. Bul.5/7.2.81. (6pp)

UYMO = ★ **D13** 82990 D/45 ★ SU-803-912
Device for cooling milk - has pump and sprayer which can be displaced along height
MORDOVO UNIV 28.05.79-SU-774809
P13 Q78 (25.02.81) A01j-09/04 F28d-01/04
28.05.79 as 774809 (110GW)
The milk cooler has a vessel (1) for milk, cold sauces, one of which is made as a sprayer (8), and pump (3) for cooling liq. pumping. In order to prevent freezing of cooling liq., the sprayer can move along the height. The cooler is also provided with mixer (2). Pump (3) is connected to vessel (1) water jacket (4). Scatterer (9) is placed above the sprayer (8) and is connected to the water jacket (4) through pipe (10) with three-way tap (11). Pump (3) is connected to tray (5) by pipe (12) having three-way tap (13). Pipe (12) is provided with section (14) for cooling liq. collection. Taps (11 and 13) can be connected to artificial cold source (15). Jacket (4) is provided with thermal insulation (16). Bul. 6/15.2.81. (2pp Dwg.No.1)



NCAU = ★ **D13** 82991 D/45 ★ SU-803-924
Nutrient for culturing eurygasters insects - contg. addn. of methyl tri:chloro-pyridyl-thiol benzyl-phosphonate as growth inhibitor, useful in agricultural pest control
NORTH CAUC PHYTOL 07.08.79-SU-810685
C03 P14 (15.02.81) A01k-67
07.08.79 as 810685 (835VE)
Nutrient medium for cultivating harmful eurygasters for agricultural investigations, is based upon a complex mixture of organic materials. Both size and development of the pentatomids are inhibited by adding ro pyO-methyl, S- (2,3,5-trichloridyl-4-thiol)- benzylphosphonate (A) emulsified in Tween-60.
The medium comprises (in wt.%): wheat germ 49.5-50.5, brewing yeast autolysate 19.5-20.5, saccharose 9.5- 10.5, (A) 0.04-0.08, Tween-60 0.4-0.6, methyl p-hydroxy- benzoate 0.19-0.21, 20% formalin 0.23-0.25, remainder - pure water.
When eurygaster larvae are reared on the proposed nutrient, the survival rate of adult bugs is reduced by 14-18%; the development period of the larvae is extended by 6.6-7.2 days; the

Imago wt. of females is reduced on average by 25.2 mg. and of males by 13.5 mg. Nutrient consumption is reduced 12-15 fold. Bul. 6/15.2.81. (3pp)

NCAU = ★ D13 82992 D/45 ★ SU-803-925
Nutrient for culturing of eurygaster insects - contg. addn. of di:methyl-nonyl-sulphonium methyl sulphate and ethanol as growth inhibitors, useful in agricultural pest control
NORTH CAUC PHYTOL 07.09.79-SU-810686
C03 P14 (15.02.81) A01k-67

07.09.79 as 810686 (835VE)

In agricultural nutrient for rearing harmful eurygaster insects is based upon a complex mixt. of organic materials. Both size and development of the pentatomids are inhibited by adding dimethylnonyl-sulphonium methylsulphate (A) and ethanol. The nutrient for controlled insects culturing comprises (in wt.%): wheat germ 49.0-51.0, brewing yeast autolysate 19.0-21.0; saccharose 9.0-11.0, (A) 0.1-0.3, ethanol 0.45-0.55, methyl p-hydroxybenzoate 0.15-0.25, 20% formalin 0.22-0.26, remainder - distilled water.

When eurygaster larve are reared on the proposed nutrient, insect viability falls by 6%; the development period of the larvae is increased by 12.3 days; the imago wt. of females is reduced by 32.9 mg. and of males by 27.5 mg. Nutrient consumption is reduced 5-7 fold. Bul. 6/15.2.81. (3pp)

NCAU = ★ D13 82996 D/45 ★ SU-803-934
Administration of borax as feed additive for cattle - for inhibiting formation of urease and its effects in rumen when urea is added to feed also

NORTH-CAUC ANIM HUS 26.04.79-SU-785954

C03 (15.02.81) A23k-01/17

26.04.79 as 785954 (29MI)

Feedstuff additive for fattening ruminant animals comprises borax (sodium tetraborate - $\text{Na}_2\text{B}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$), which inhibits formation of rumen urease during the feeding of urea.

The experiments involved 9 castrated bulls with live weights of 200 kg each, divided into three similar groups (1st gp. control; second and third test). The food given to the animals consisted of: corn silage, wheat straw, sunflower oil cake, beet sugar molasses, cooking salt. Calcium and phosphorus deficiency was made up by chalk and disodium phosphate. Each ration consisted of: nutrient units 6.5; digestible protein 605; sugar 600; Ca 35; P 22. The 1st group were fed the basic rations. For the 2nd and 3rd groups the sunflower oil cake was omitted and substd. by carbamide nitrogen which also made up for deficiency in digestible protein (25%). The animals in the 3rd group were also fed borax in an amt. corresp. to 7 g. per head per day, i.e. 3.5 g. borax per 100 kg. of body weight.

After 1.5 and 5 months, samples of rumen liquid were taken for analysis to determine the ammonia content (prior to feeding and 2, 4, and 6 hours after). The amt. of ammonia was used as the speed of hydrolysis of the urea. The use of the borax over a period of 5 months did not lead to any pathological shift in the organism. Rectal temp. pulse, breathing rate and contraction of the rumen in unit time were within the physiological norm. Bul. 6/15.2.81. (3pp)

ALFA D13 18790 T/12 = US RE30-780
Sterilising/pasteurising - by microwave heating after preheating and surface cooling

ALFA-LAVAL AB 08.09.70-SE-012153

X25 X26 (20.10.81) *NL7112-385 + H05b-06/78

31.07.78 as 929668 Relissue of 3814889 (1358TM)

For sterilising or pasteurising a heat-sensitive prod., the main part at least of a prod unit is preheated to at least 50 deg C., the heating is interrupted, the unit is exposed to coolant to prevent the surface from reaching a higher temp. than the interior and the unit is then microwave heated.

The preheating temp is pref 60-80 deg C and is reached by electromagnetic heating. Coolant temp is pref above the initial temp of the prod. The prod may be packaged before heating to treatment temp., during which it is surrounded by aq liq which is at controlled temp. (7pp)

JAGN D13 31127 C/18 = US 4295-502
Eliminating foam head on liq. with high frequency radiation - partic. heat-sealable machine filled cartons of milk with ultrasonic energy

JAGENBERG WERKE AG 04.07.79-DE-926955

Q39 + P13 Q31 (20.10.81) *BE-880-721 B65b-03/04

23.10.79 as 087358 (006RH)

Foam above the level of liq. in a container is collapsed by ultrasonic waves applied through the air, or by applying infrared or microwave radiation.

The foam-collapsing step occupies only a fraction of the cycle time taken by a container filling machine, esp. for filling plastic-coated paperboard containers with milk where foam could inhibit

heat-sealing. (5pp)

GENO ★ D13 83405 D/45 ★ US 4296-026
Prepn. of soybean protein isolate of improved purity - by extn. from soybeans using aq. sodium chloride contg. calcium chloride
GENERAL FOODS CORP 22.09.80-US-189646
(20.10.81) A23j-01/14

22.09.80 as 189646 (478RH)

The known formation of a soybean protein (I) isolate by: (a) treatment of soybeans with an aq. NaCl soln. of ionic strength at least 0.2M (to solubilise (I)); (b) diluting the (I) soln. to an ionic strength sufficient to form a dispersion of (I) in the aq. phase; and (c) collecting (I) from the dispersion as an amorphous mass of (I) isolate is improved by using CaCl_2 in the NaCl soln.

In step (a), soybeans are pref. defatted and of size 10-800 pref. less than 200 mesh. Aq. NaCl soln. has ionic strength pref. 0.2-0.8M, esp. 0.3-0.6M. Amt. of CaCl_2 used is 0.001-0.01M pref. 0.002-0.005M. Solubilisation of (I) is at 15-75 pref. 15-65 deg./pH 5-6.8 pref. 5.3-6.2, using soybean concn. 5-15w/v%. In step (b), (I) soln. (protein concn. 10-100 pref. 30-70 g/l) is pref. concd. (US4208323) to vol. redn. factor 1.1-6.0 pref. 3-4 at 20-75 deg., then (protein concn. 40-200 g/l) diluted to ionic strength below 0.2M, pref. below 0.15M, esp. 0.06-0.12M with H_2O at pref. 5-15 deg.

Incorporation of CaCl_2 into the NaCl soln. improves the purity of the (I) isolate. (4pp)

GENO ★ D13 83446 D/45 ★ US 4296-132
Improved palatability nutritionally balanced dog food - contg. magnesium oleate mixed with fat component, which is pref. coated on dry food base

GENERAL FOODS CORP 13.03.80-US-129875

C03 (20.10.81) A23k-01

13.03.80 as 129875 (914HM)

Nutritionally balanced dog food comprises fat, protein, carbohydrates, vitamins and minerals. The improvement comprises that magnesium oleate is present in admixt. with at least a portion of the fat, in amt. effective to improve the palatability of the food.

Pref. the dog food contains less than 15wt.% moisture; and the magnesium oleate is blended with a fat which is subsequently coated on the surface of the food. The magnesium oleate is pref. used in amt. 0.1-0.4% based on the total wt. of the food, and the fat coating pref. comprises 2-8% of the total wt. of the food.

Magnesium oleate disperses well in fat and can be mixed well with a fat coating to provide uniform application to the surface of (esp. dry) foods. Surface application also places the flavourful material where it will have the greater impact, thereby providing the greatest improvement in palatability with the smallest amt. of magnesium oleate. (4pp)

BOLD/ ★ D13 83447 D/45 ★ US 4296-134
Yolk-fat- and cholesterol-free liq. fresh egg prods. - contg. liq. egg white, water, and egg yolk protein replacement etc.

BOLDT W A 08.03.77-US-786301 (13.05.74-US-469476)

(20.10.81) A23i-01/32

08.03.77 as 786301 (+ 21.4.75-US-569607) (478RH)

Fat-, oil-, cholesterol-, and yolk-free fresh egg prod. (max. 80 calories/100 g; protein concn. 7.5-19wt.%; max. H_2O content ca 1.3 times that of fresh egg whites) contains (by wt.): 60-96 pts. liq. natural egg whites (I); 0-18% added H_2O ; 2-10.5 pts. egg yolk protein replacement (II); 0.2-0.95 pts. stabiliser (III); 0.1-2.5 pts. flavouring; and 0.01-0.2 pts. colouring. (II) with (I) provide combined protein-contg. essential amino acids in ca the same ratios as they occur in fresh whole eggs. After being cooked in a double boiler, the prod. has syneresis value less than 4%.

The highly palatable prod. is free from fat, oil, cholesterol, and natural egg yolk, may be kept under refrigeration, and may be used without reconstitution in the prepn. of scrambled eggs, omelets, and souffles, etc. (9pp)

BEAF D13 62283 D/34 = US 4296-136
Reconstitutable coconut food-flavouring material prodn. - by grinding, fibre sepn., enzyme deactivation and concn. by condensing and or spray-drying

BEATRICE FOODS CO 01.02.80-US-117797

(20.10.81) *WP8102-080 A23i-01/22

01.02.80 as 117797 (924RH)

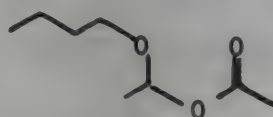
Prod. of reconstitutable natural coconut flavour comprises (1) grinding coconut meat to an average particle size of 2000 microns or less and until a pulp contg. coconut flavour liquor is obtd.; (2) sepg. the liquor from the meat fibre, where the sepd. liquor has fibre content of no more than 2%; (3) deactivating enzymes in the flavour liquor by heating, and (4) concentrating the deactivated liquor by condensing to more than 25% solids or spray-drying to a free-flowing powder.

Pref. the mixt. is obtd. from matured coconuts. Pref. the ground pulp is pressed to expel liquor. The conc. coconut flavour may be reconstituted with

flavour The coconut flavour is a mixt. of cococut fat and protein/carbohydrate in ratios of 40-72;60-28. (8pp)

INFL ★ D13 83449 D/45 ★ US 4296-138
Flavouring of foodstuffs and chewing gum - by adding 1-butoxy-1-ethanol acetate
INT FLAVORS & FRAGR INC 18.12.80-US-217810 (07.08.80-US-176111)
E17 (20.10.81) A231-01/22
 18.12.80 as 217810 (558JB)

A foodstuff or chewing gum is treated with 0.05-500 ppm 1-n-butoxy-1-ethanol acetate of formula (I). In an example, 11.0 pts.(wt.)methyl anthranilate, 9.0pts.ethyl acetate, 2.5 pts. ethyl anthranilate, 2.0pts. ethyl butyrate, 1.5pts.ethyl methyl phenyl glycidate, 0.3pt. cinnamic alcohol, 0.1pt.cognac oil, 73.6pts. EtOH, 1.5 pts. 2-phenyl-3-carboethoxy-furan, 1.5 pts. bis(cyclohexyl)disulphide and 1.0pt. (I) are mixed to give a flavour formulation. A grape juice concentrate(concn. 48 deg. Brix) is combined with 100-fold natural grape essence in the ratio 100:1 and treated with the flavour formulation in an amt. providing a level of 100 ppm. in the obtd. reconstituted grape juice. (I) augments or enhances the aroma or taste of the treated material. Fresh, fruity, grape- and apple-like, juicy, somewhat acetaldehyde-, acetic acid- and ether-like characteristics can be imparted. (14pp)



(I)

TATL D13 33122 C/19 = US 4296-139
Bittering of e.g. beverage or other compsns. - using 2,6,1',6'-tetra:chloro-2,6,1',6' tetra:deoxy-mannosucrose
TALRES DEV NAN NV 18.10.78-GB-041115
B03 C02 E13 (B07) (20.10.81) *EP--10-409 A231-01/22 A231-02
 17.10.79 as 085402 (964MR)

Substance is bittered by incorporating 2,6,1',6'-tetrachloro 2,6,1',6'-tetra:deoxy-mannosucrose (I) as bittering agent. Pref (I) is used in amt of 0.005-0.01 wt %.

(I) is used in beverages esp Indian tonic water and bitter lemon where it replaces quinine sulphate bittering agent which is susceptible to degradation by UV light.

(I) may also be used in higher concns to render non-ingestible substances unpalatable, e.g. industrial alcohol or seeds which may be eaten by vermin or birds. (4pp)

TRIV- ★ D13 83450 D/45 ★ US 4296-140
Prepn. of moulded gelled pimento material - by calcium chloride gelling of mixt. of macerated pimento, alginate, thickener, and an acid
TRI-VALLEY GROWERS 27.05.80-US-153220 (08.03.77-US-775556)
(20.10.81) A231-01/04
 27.05.80 as 153220 (+ 27.9.78-US-946115) (478RH)

Moulded gelled body is produced by gelling in CaCl₂ a compsn. contg. macerated pimiento flesh (I), an H₂O-soluble alginate (II); starch and/or vegetable gum; and an acid (to give pH not above 4.5).

(I) is the major constituent; amt. of (II) is such that after cooling and treatment with aq. CaCl₂ the mixt. is quickly gelled; amt. of starch and/or gum is to afford a gel which can be handled without structural damage. The gel has stability such that it remains unchanged in shape after storage for 2 days in a brine contg. 7% NaCl, 0.5% lactic acid, and 500-1000 ppm CaCl₂.

The inexpensive reconstituted material may be moulded continuously to a ribbon form which has toughness and resilience sufficient to allow normal manipulating and storage, etc. and folding and stuffing in pitted olives. The prod. has pleasant flavour and mouth feel, and good storage properties (even in olives). (13pp)

DPAO/ ★ D13 83451 D/45 ★ US 4296-141
Prepn. of conchless high protein chocolate compsn. - from fat, sweetener, cocoa or carob powder, and soya protein isolate
DE PAOLIS P U 27.08.79-US-069857
(20.10.81) A23d-05 A23g-01
 27.08.79 as 069857 (478RH)

Conchless chocolate compsn. is prepd. as follows: (a) a viscous paste is prepd. from (by wt.) 5-40 pts. edible fats, 40-70 pts. sweetener (I), 2-60 pts. flavouring (II), and 3-40 pts. soya protein isolate (III); (b) more edible fat is added to give total fat content 10-65 pts.; (c) liq. mixt. is stirred and heated to 110-140 deg.F for 10-30 mins.; and (d) mixt. is cooled. (I) is sugar (or substitute); (II) is cocoa or carob powder.

Pref. fats are palm kernel oil (not hydrogenated), cottonseed oil (hydrogenated), esp. hydrogenated soy bean oil. (I) is pref. derived from corn solids, e.g. corn syrup solids or corn flour of dextrose equiv. 20-25wt.% tapioca flour, or mixts. Pref. (II) is carob powder. Pref. (III) is 'Supro 620' (RTM). Opt. the compsn. may also contain lecithin (up to 1.75 pts.wt./100 pts. of other ingredients).

In the process (III) acts as an emulsifying agent and allows the conventional conching to be eliminated. The prod. has the taste, texture, and mouth feel of a fully conched cpd. coating. In addn., the compsn. is cholesterol- and caffeine-free, and has a relatively low calorie content. (4pp)

See Also

D16 DE3015439	D16 EPG003318	D16 J81043229
D16 J81043241	D16 NL-168266	D22 J56121686
D23 GB1601729	D23 US4296137	

D14: FOODSTUFF MACHINERY

MARQ/ ★ D14 82011 D/45 ★ EP --38-766
Filling and packing of perforated pot liners with fresh cheese - using two part stillage to stack liners in tank for flood filling
MARQUEZE 17.04.80-FR-009051
P13 (28.10.81) A01j-25
 18.04.81 as 420058 (448RH) (F) FR2045236 FR1313172 FR2082779 FR1527855 GB1423958 FR1332744 E(AT BE CH DE GB IT LI LU NL SE)
 A special support rack and an installation for the automatic filling and packing of fresh cheese into upwardly divergent coned pots. The prod. is of the type comprising a pot contg. a removable, perforated pot liner which is filled with curds and placed inside the pot where whey drains into the space between pot and liner.

The support rack can accommodate rank and file rows of liners. The rack comprises an upper grid separably superimposed upon a lower stillage. A liner positioned in the rack is suspended by its top rim flange resting on the top of the upper grid, the coned wall of the liner extending down through both grid and stillage, but not projecting below the stillage.

Racks filled with liners are stacked in a large tank where the liners are filled by flooding the tank with curds. Each rack in turn is raised from the tank. The stillage is automatically sepd. from the grid which retains the liners, now projecting below the grid surface. The liners are lifted automatically from the grid

and each filled liner automatically lowered into an individual pot. Manual ladling of curds into liners is eliminated. This saves labour and ensures consistent filling of the liners. (13pp)

BINE/ ★ D14 82027 D/45 ★ FR 2478-956
Domestic roasting drum for coffee beans etc. - fits on turnspit of barbecue or rotisserie and is turned by skewer spikes
BINEAU G 28.03.80-FR-007112
P28 (02.10.81) A23n-12/12 A47j-37
 28.03.80 as 007112 Add to 17.4.79-009833 (448MR)

In the parent patent a roasting drum partic. for coffee beans, but also applicable to other beans, seeds, nuts etc., was claimed. The drum is intended to be rotated in close proximity to a heat source partic. an open fire. To rotate the drum, it is fixed to the turnspit of e.g. a rotisserie or barbecue.

In this addition the roasting drum, pref. spherical, has two diametrically opposed holes to allow the spit to be passed right through the drum with a length of spit extending on both sides of the drum.

The exterior of the drum has a rub or flange which can be engaged by the spikes of skewer collars on opposite sides of the drum. The drum is pref. composed of two hemispheres joined by external flanges around their rims. The sealed flanges serve as an engagement for the skewer spikes.

This is partic. inexpensive accessory for domestic barbecue or

rotisserie. Once taken from the spit, the drum takes up very little storage space. (10pp)

GENM D14 45566 B/24 = GB 1601-865
Rotary valve feeding food treatment chamber - with two separate pocket areas with out of phase pockets

GENERAL MILLS INC 06.04.77-US-785140

(04.11.81) *US4156-486 + A231-03/18

06.04.78 as 013560 (006MR)

Two rotary pocketed valves alternately feed food articles into an elongated treatment chamber, specifically with a pressure steam atmos., so that double the input and output is obtd. than with a single rotary valve.

Specifically the two pocketed valves comprise adjacent portions of a single rotor, with pockets of one valve out of phase with those of the other valve. Pref. the pockets comprise radially opposite pairs with a connecting air vent passage. (12pp)

ODPR = ★ D14 82877 D/45 ★ SU-776-594
Mincer for vegetable tissues to produce juices and baby food - has perforated rotor and diaphragm, outside which are knives set angle, plus screw for non-minced particles

ODESS PROVISION MAC 10.11.78-SU-684807

P41 (07.11.80) A23n-15 B02c-21

10.11.78 as 684807 Add to 475173 (29MI)

Installation for the fine mincing of vegetable tissues during the production of juices and conserves for feeding to children, was claimed in Parent Cert. No. 475173. This consisted of a loading device, rotor chamber and knives. The rotor was perforated and had a perforated diaphragm. The knives were positioned on the outside of the rotor and were stationary, at an angle to the rotor axis. A screw was added for removing the unminced particles. Now quality and amount of waste materials is regulated, with production of squeeze-dried particles, by providing a conical regulator with cylindrical supports applied to its base. The ends of the supports are rounded off and there are guiding bushes through which the ends of the supports pass. The regulator is installed so that the value of the gap with the exit end of the body of the screw can be varied. Bul. 41/7.11.80. (4pp)

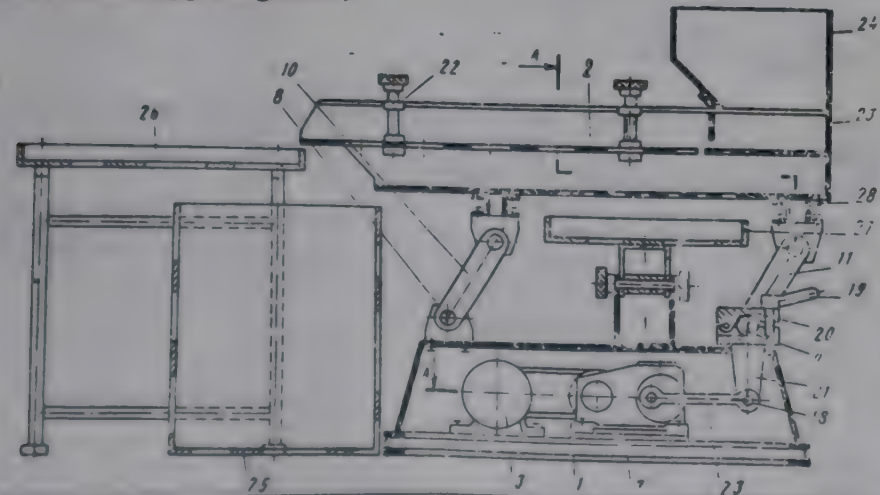
GECO = ★ D14 82878 D/45 ★ SU-776-595
Vegetables esp. mushrooms sorter - has perforated tray mounted in frame and oscillated with preset amplitude from motor via crankshaft

GEN CONSUM TECH BUR 27.11.78-SU-691251

P43 (07.11.80) A23n-15 B07b-01/42

27.11.78 as 691251 (29MI)

Sorting installation, for vegetables, primarily mushrooms, which can be used in the agricultural, food, or conserves inds., etc., has frame (1) on which a calibrating tray (2) is mounted, motor (3) with reciprocating mechanism, shafts (10,11) connected by the links (8,9), plus mechanism to control the oscillation amplitude of the tray by means of an eccentric. The angle of the tray can be varied and the sepn. possibilities of the plant improved, by providing the shaft (11) with a spring (20) and a rod (21) which, in turn, is fastened to a connecting rod. The eccentric is in the form of bushes mounted on the crankshaft and capable of rotating. Bul. 41/7.11.80. (3pp Dwg.No.1)



MOGI = ★ D14 82884 D/45 ★ SU-793-550
Drier for liquid foods, e.g. milk - has tangential inlet pipe and rotor with shaft and crosspieces bearing scrapers to spread milk and remove solids from heating surfaces

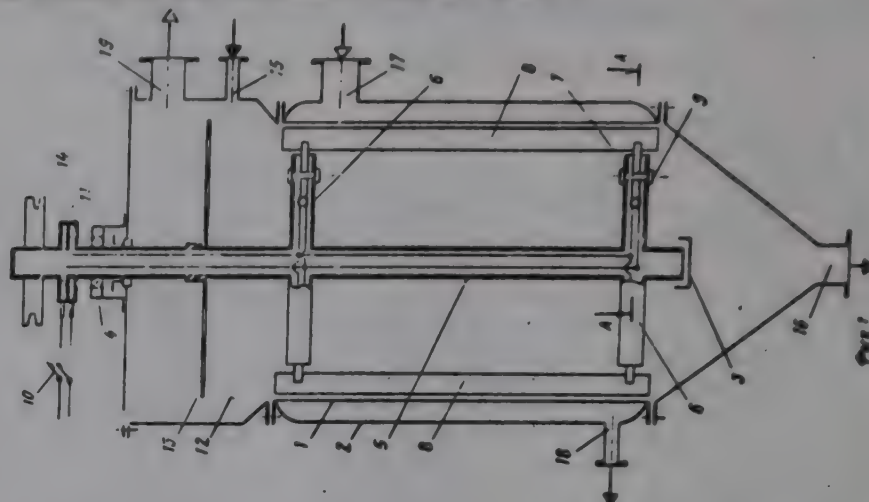
MOGIL TECH INST 04.04.79-SU-746396

(07.01.81) A23c-01/* B01d-01/22

04.04.79 as 746396 (29MI)

Equipment for drying liquid food products, e.g. milk, has rotor in the form of a shaft (5), with cross-pieces (6) on which scrapers (8) are mounted. The heat- and mass-transfer processes are

intensified, increasing the productivity of the equipment, by providing each of the scrapers with an electromagnetic vibrator (9). The shaft has collector rings (11) to pick up current which is fed to each of the vibrators. (8pp Dwg.No.1)



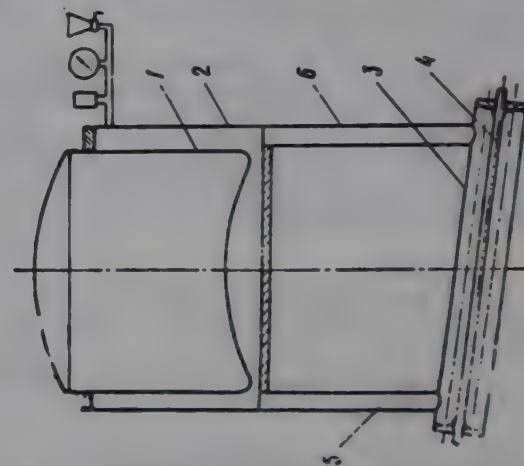
SVNA = ★ D14 82885 D/45 ★ SU-793-562
Electric cooking boiler - has cooking container in steam-water jacket fed with mixture of steam and liquid from steam generator

SVERD NATION ECON 30.03.79-SU-748096

X27 P28 (07.01.81) A47j-27/16

30.03.79 as 748096 (29MI)

Electric cooking boiler, for the general production of foods, has cooking container (1) with steam/water jacket (2), steam-generator (3) into which tubular electric heaters (4) are placed. Power consumption is reduced, by making the body of the steam-generator (3) as a cylinder which is made to slope and has lifting (5) and dropping (6) pipes in the upper and lower parts. Circulation is guaranteed by making the diameter of the dropping pipe smaller than that of the lifting pipe. Bul. 1/7.1.81. (2pp Dwg.No.1)



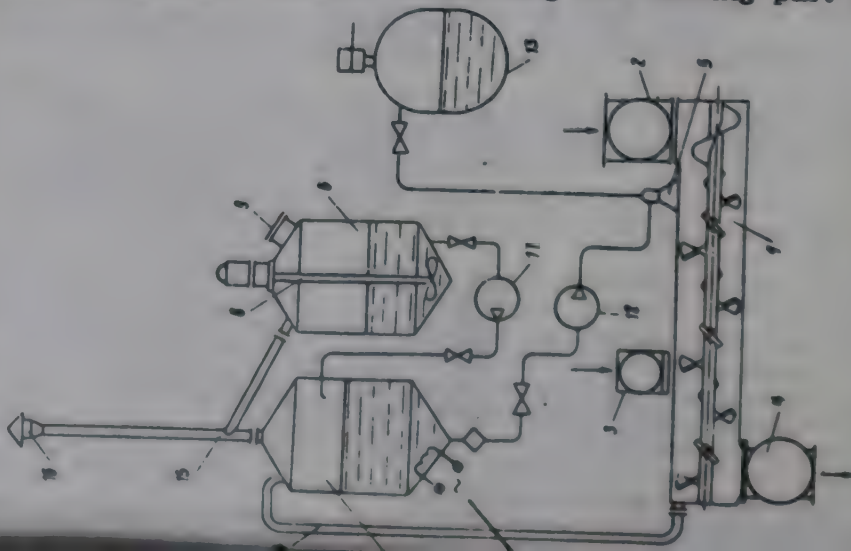
AGRI = ★ D14 82995 D/45 ★ SU-803-933
Straw heat-treatment equipment for animal feedstuff prodn. - has caustic soda solution preparation and storage tanks, with heater, pumps, and reactor-mixer for hydrolysis

AGRIC ELECTRIF RES(GRAS =) 13.08.79-SU-810776

(15.02.81) A23k-01/12

13.08.79 as 810776 (29MI)

Equipment for thermomechanical treatment of straw, including storage tanks (6,7), for making and proportionating the hydrolysing soln., sprayer (5) forming the working part of a



reactor/mixer (1), and with loading and unloading heads (2,4). Treatment quality is increased, and contamination of the surrounding medium is reduced, on account of preventing escape of soln. from the reactor and storage tanks, by providing the latter with condensers made as two pipes, one of which (15) connect to the atmosphere, and the other (10) with the reactor. The mixer is a shaft with blades located underneath the loading head. (3pp Dwg.No.1)

BLAC = ★ D14 82997 D/45 ★ SU-803-935
Animal feed concentrate prodn. equipmt - has motor-driven granulator, solids feeder and liquid sprayer, granules being discharged as granulator rotates

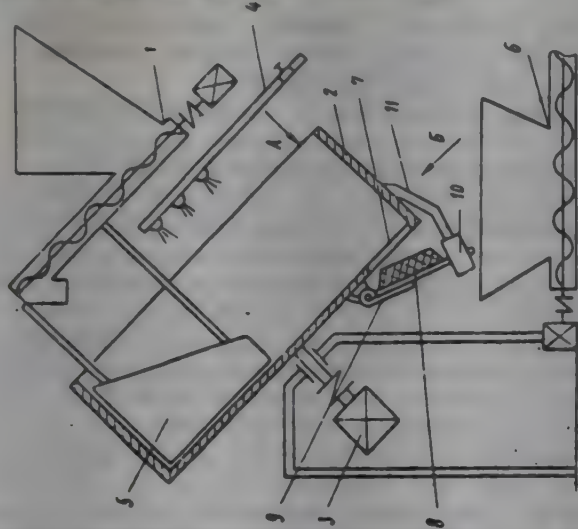
BLACK EARTH AGRIC(ANIM =) 15.08.79-SU-810740

(15.02.81) A23k-01/20

15.08.79 as 810740 (29MI)

Equipment for preparing animal feed concentrate immediately before feeding it to the animals, has feeder (1) underneath which, and at an angle, is a plate granulator (2) with spray device and hatchway (7). Productivity is increased by providing the plate granulator with guides (11) disposed at its lower end (in the zone where the material is unloaded), and a cover (8) for the hatchway.

This is pivotally mounted and capable of working in conjunction with the guides. The cover is spring-loaded (9) and has a roller (10) which travels along the guides. (3pp Dwg.No.1)



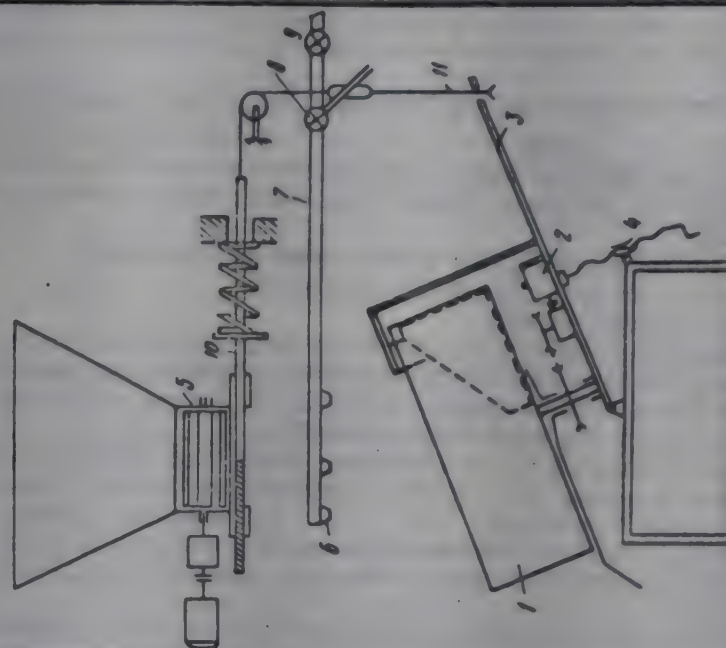
BLAC = ★ D14 82998 D/45 ★ SU-803-936
Granulated animal feedstuff prodn. equipmt - has sloping rotating plate, solids proportionator and liquid feed, all controllable to give preset prodn. level

BLACK EARTH AGRIC(ANIM =) 15.08.79-SU-812744

(15.02.81) A23n-17

15.08.79 as 812744 (29MI)

Equipment for making granulated animal feeding-stuff has plate (1) with drive (2) on supporting element (3), above which is a proportionator (5) and spraying attachment (6) fastened to a pipe (7) and fitted with sliding valve (8). Productivity can be regulated, without changing the moisture content of the product, by fitting a spring-loaded flexible rod (11) attached to the regulator for the proportionator (5), the pipe (7) and the support (3), and being able to alter the angle of slope. (2pp Dwg.No.1)



BETA ★ D14 83547 D/45 ★ WP 8103-076
Measuring temp. rise of prod. in pellet mill - and adjusting moisture content to control temp. rise

BETA CORP ST LOUIS 14.04.80-US-139841

T06 X25 (29.10.81) A23n-17 G05b-11/*

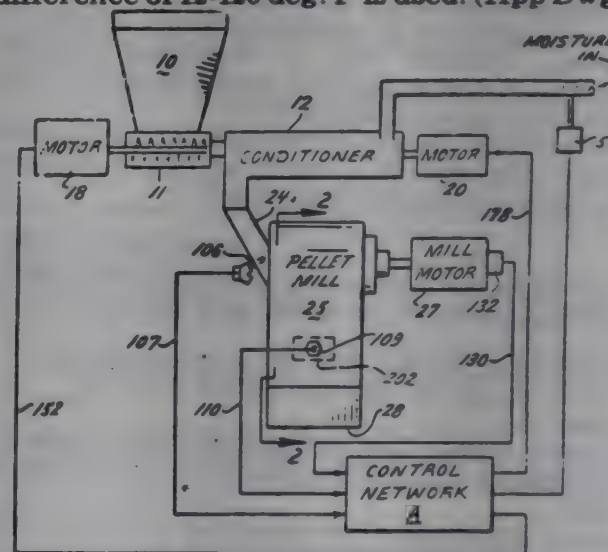
09.04.81 as U00464 (295HM) (E) US3932736 US3812713 US3707978

US3573924 US3255975 US3174298 N(AU BR DE GB JP NL) E(FR)

The temp. of the feed to a pellet mill is measured simultaneously with the temp. of the prod. in the mill. These measurements permit the temp. rise of the mill to be calculated. A control network monitors this temp. difference and adjusts the addn. of moisture to the feed to maintain the difference within preset limits.

In other embodiments the temp. difference is used to adjust the rate of steam, water or dry heat added to the feed. Pref. the temp. sensor in the mill is protected from the pellets by a baffle.

The control network adjusts the rate an ingredient is added to the feed to maximise the productivity of a pellet mill. Typically a temp. difference of 12-120 deg. F is used. (11pp Dwg.No.1)



See Also

D22 US4295887

D22 US4295932

D22 US4296066

D15: WATER TREATMENT

BILE/ ★ D15 D/45 ★ AT 7903-278
Waste water removing installation - for individual buildings and their environments

BILEK P 02.05.79-AT-003278

(15.10.81) C02f-01

RHON ★ D15 D/45 ★ BR 8103-753
Treatment of aq. effluents contg. organic residues - and opt. mineral salts, and incinerator furnace used

RHONE-POULENC INDUSTRIES 13.06.80-FR-013165

(20.10.81) C02f-11/10

WASS- ★ D15 81712 D/45 ★ DD-150-048
Centrifuged digested sludge liquid treatment - in stabilising basin and thickeners

VEB WASSERVERSORGUN 08.04.80-DD-220290

(12.08.81) C02f-11/08

08.04.80 as 220290 (39TM)

The centrifuged liq. of digested sludge from a centrifuge station is stabilised by hot compressed air in an aerobic basin together with thickened surplus activated sludge. It is then thickened in Dorr-type thickeners, fitted with agitator bars. The surplus activated sludge is recycled from surplus sludge thickeners and is admixed with a portion of the stabilised centrifuged liq. from digested sludge.

This treats the centrifuged liquid with a minimum of material

and power consumption. Smaller sludge dewatering spaces are needed and the reactions are not hampered in the cold season. (8pp)

DEAK * D15 81716 D/45 ★DD-150-067
Acrylonitrile polymer sepn. membrane - prep'd. by casting-soln. coagulation in polymer glass transition temp. range without tempering

AKAD WISSENSCHAFT DDR 20.04.80-DD-220320

A32 J01 (A14 A88) (12.08.81) C08j-05/22

20.04.80 as 220320 (200MR)

In casting asymmetric acrylonitrile polymer membranes from solns., esp. in dimethyl formamide as solvent, the coagulating medium temp. TF, ranges from 30 K below polymer glass transition temp. Tg, up to 30 K above Tg.

The membranes are used for sepg. materials, dissolved and/or emulsified in water, e.g. drilling- and cutting oil emulsions, dyes, water-soluble proteins, etc., in processing water from engineering-, textile- and food industries. Selectivity and water-permeability are increased and the membranes require no tempering.

The polymers include polyacrylonitrile and acrylonitrile copolymers contg. up to 20 wt.% co-monomer, e.g. acrylic acid, Me acrylate or vinyl acetate, up to 2 wt.% of which can be replaced by Na allyl sulphonate or itaconic acid. (10pp)

JENS/ * D15 D/45 ★DK 8000-725
Mineral water prodn. plant
JENSEN KB 20.02.80-DK-000725
Q31 (12.10.81) B65b

INTE- D15 47500 B/26 = EP G002-543
Polymer coated calcium peroxide particles - used for oxygenation of water, e.g. reservoirs, for long periods

INTEROX SA 18.11.77-LU-078545

A97 E33 + P42 P73 (28.10.81) *EP---2-543 C01b-15 C02f-01/72
15.11.78 as 200306 (922MR) (F) AT--33357 DS---459 DS1257801 DS-334868 FR1560450 FR2215385 E(BE CH DE FR GB LU NL SE)

Solid particles contg. calcium peroxide are coated with a water-insoluble (less than 1 wt.%) solid whose m.pt. is at least 50 deg.C. The solid may be inorganic (e.g. (Ca salts of) silicates, sulphates, aluminates, aluminosilicates, carbonates and (tripoly- or meta-)phosphates) or organic (e.g. copolymers of vinylidene chloride, styrene or vinyl chloride esp. a vinylidene-chloride methyl acrylate copolymer) and applied by spraying a soln., emulsion or suspen. to a coating wt. of 0.1-20 wt.%.
The coated particles used to oxygenate drinking water supplies (when they are disposed in a filter) or waste waters, have a sharply reduced rate of hydrolysis. (15pp)

BRPE D15 75703 B/42 = EP G004-724
Coalescer cartridge for removing contaminants from liquids - comprising fibres secured to fixed and movable end support plates

BRITISH PETROLEUM LTD 05.04.78-GB-013231

A88 H05 J01 (28.10.81) *EP---4-724 B01d-17/02 C10g-33/06
+ C02f-01/40

21.03.79 as 300443 (974) (E) DE1905536 FR1083869 FR1405867 FR2255935 GB1280066 GB1384172 US1833315 US2649964 E(BE DE FR GB NL SE)

Novel coalescer cartridges for removing contaminants from a liq. comprise a fixed end support plate (I), a movable second end support plate (II), movable w.r.t. (I) and connected to an actuating rod (III), and fibres or bundles of fibres. Each fibre or bundle is secured to (I) and (II). (II) is axially movable by (III) towards or away from (I) to compress and stretch the fibres resp.

Pref. the fibres are of wool, cotton, viscose, polyamide, polyester, polyolefin or a mineral. Prods. are used for recovering oil from waste water. (9pp)

GKSS- D15 62553 D/35 = EP --38-402
Organic cpd.-contaminated waste water purificn. - by ozonising using chemically stable, inert absorbent catalyst pref. silica gel

GKSS-FORSCH GEESTHA 11.04.80-DE-013905

(28.10.81) *DE3013-905 B01j-21/08 B01j-37/02 C02f-01/78

10.02.81 as 100912 (1412PW) (G) DE2647341 DE2440181 US2722504 DE2511344 FR1073404 E(BE CH DE FR GB LI SE)

Catalyst for ozonising contaminant-contg. waste water has (a) chemical stability to ozone, (b) long-term stability, and (c) can be shaped for use in packed columns. The catalyst is an adsorbent inert towards O₃, esp. SiO₂ gel or an SiO₂ gel-coated filler. Pref. packed column-fillers are pyrolysis silicate or silicone elastomer calcined at 600 deg.C under N₂.

Catalytic ozonising process use in organic cpd.-contaminated waste water processing to drinking water is claimed. The catalyst retains its catalytic activity in use. Even low residual organic cpd. concns. can be eliminated completely. (pp)

WERN * D15 81874 D/45 ★EP --38-420
Sludge incineration in two stages using pyrolysis gases - to heat sludge with parallel flow in first stage and contra-flow in second stage

WERNER & PFLEIDERER 21.04.80-DE-015290

(28.10.81) C02f-11/10 C10b-53

13.03.81 as 101859 (236RH) (G) DE2142439 AT-266723 CH-499750 E(AT BE CH DE FR LI NL SE)

A method of incinerating sewage sludge consists of heating the already predried sludge in a first stage to reduce it to residual moisture content, then subjecting it to pyrolysis in a second heating stage; the gas obt'd. from the pyrolysis is used at least partly for producing the necessary heat.

In the first treatment stage the sludge is conducted in co-directional flow with the hot flue gases, while in the second treatment stage it is passed in counterflow to the same gases. Pref. in the first stage the sludge surrounds the flue gases and in the second stage the flue gases surround the sludge. Pref. flue gas speeds are 20-50 m/s.

Method is environmentally favourable, energy-saving and inexpensive. At the commencement of the evapn. process very hot flue gases dry the sludge very quickly, esp. at the commencement of this process so that pyrolysis has already commenced when the second stage is reached. (20pp)

CHFS * D15 81923 D/45 ★EP --38-578
Polymers of N-substd. unsatd. carbonamide(s) - useful as flocculants, de-watering aids, paper making additives, oil additives or as ion exchange resins

CHEM FAB STOCKHAU 00.00.81-EP-103346 (27.12.78-DE-856383)

A14 F09 (28.10.81) C02f-01/56 C08f-20/54

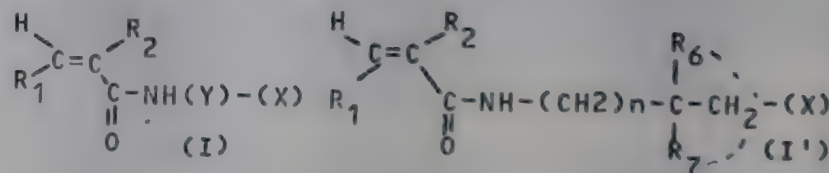
00.00.81 as 103346 (902BZ) (G) DE2233337 US4031138 FR2193787 US3856689 DE2819735 E(AT BE CH DE FR GB IT LU NL SE)

Addn. polymers are claimed of alpha, beta-N-substd. carbonamides of formula (I) and esp. of formula (I'). In (I) R₁ and R₂ are H or Me; Y is a divalent 2-30, e.g. 2-18 C strt.chain or branched organic residue, e.g. a gp. of formula -(Y₁)m-(Y₂)n-(Y₃)t where Y₁, Y₂ and Y₃ are alkylene gps. or the residue of a 5 or 6C ring system and m+n+t is 2 or 3; X is H or -N(R₄)(R₅) where R₄ and R₅ are 1-4C alkyl or 3-6C cycloalkyl.

In (I') R₁ and R₂ are as above; R₆ and R₇ are alkyl, (pref. 1-4C), esp. Me) or aryl or together form an aliphatic ring, esp. cyclopentyl or cyclohexyl; n is 0-10; and X is as above or -N+(R₃)(R₄)(R₅)A where R₃ is H or 1-4C; R₄ and R₅ are as above; and S is an anion.

Specifically claimed are homo- and co-polymers and the use of these as flocculation and sedimentation aids, sludge dewatering aids, retention- and dewatering aids in papermaking, mineral oil additives and as ion-exchangers.

Polymers made from cationic monomers of formula (I) or (I') are not only flocculation or dewatering aids but also serve as agentants for improving the dry- and wet-strengths of paper. In mineral oils they act as viscosity controllers and dispersants. When polymerised with crosslinkers they form anion exchange resins. Mol. wt. ranges are: flocculation and dewatering aids 5-10x10 power 6, papermaking additives 1-5x10 power, and other uses up to 10 power 6. (59pp)



ALBA- * D15 81937 D/45 ★EP --38-61
Hollow filament separatory module - has layers of hollow filaments each disposed in a helix and ends encased in potting compound

ALBANY INT CORP 00.00.81-EP-200530 (19.09.78-US-943738)

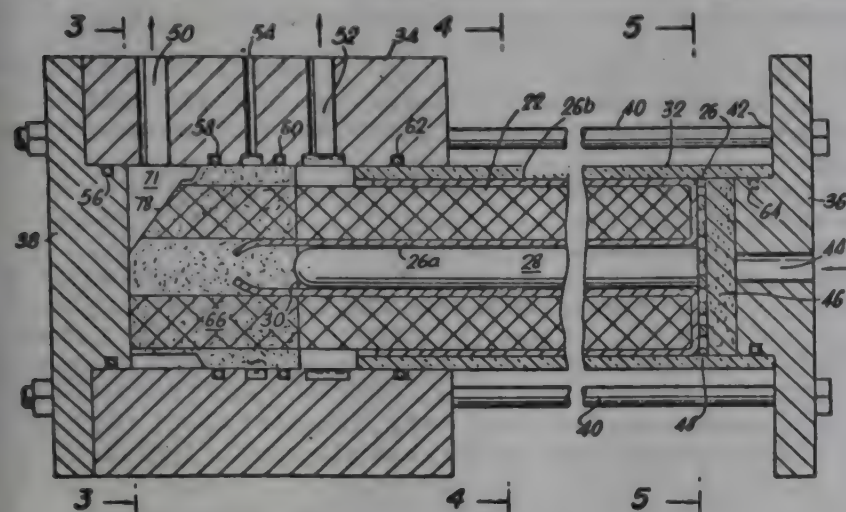
A88 J01 (28.10.81) B01d-13

00.00.81 as 200530 Related to EP---9374 Filed 13.9.79 (+ 19.9.78-US 943739) (50DH) (E) No-Citns. E(AT BE CH DE FR GB IT LU NL)
Bundle of filaments (22) consists of a number of layers of semi-permeable hollow filaments, each layer disposed in a helix. A pressure resistant enclosure (32,34) encloses the bundle with end plates (36,38). The filaments have open ends and main portions with one fluid flowing over the outer surfaces of the main portions of the filaments and potting cpd. (66) encasing the ends of the filaments to cause fluid to flow within the filaments.

A collection chamber (71) is adjacent the potting cpd. (66) and an access surface (79) is formed on the potting cpd. for the open ends of the filaments. The area of the access surface (79) projected on a plane perpendicular to the direction of internal pressure forces against the potting cpd. is less than 50% of the area of the potting cpd. (66).

pd. parallel to the plane.

Used for sepn. of gas/gas, liq./liq. and liq./solid mixts. and solns. by permeable or semipermeable membranes. Module internal pressure acting against the potting cpd. is resisted by a surface of the potting cpd. at which no cut filament or fibre ends appear. Surface resisting the thrust may be at right angles to the principal axis of the module, and the cut ends of the fibres may be located at different elevation or at an angle to the surface of the potting cpd. required to take the pressure thrust. (27pp Dwg.No.2)



ALBA- ★ D15 81938 D/45 ★ EP --38-812
Hollow filament separatory module - has semipermeable tubular filament bundle with sealing rings preventing leakage of fluid concentrate

ALBANY INT CORP 00.00.81-EP-200531 (19.09.78-US-943738)

A88 J01 (28.10.81) B01d-13

00.00.81 as 200531 Related to EP---9374 Filed 13.9.79(+ 19.9.78-US-943739) (67DH) (E) No-Citns. E(AT BE CH DE FR GB IT LU NL)

The module comprises a helically wound annular bundle of semipermeable tubular filaments contained within a pressure resistant enclosure. Fluid concentrate to be sepd is supplied under pressure to the outsides of the filaments and the sepd permeate flows through open ends of the filaments into a collection chamber.

To prevent leakage of fluid concentrate from the supply to the collection chamber the ends of the filaments are embedded in potting cpd and two separate sealing rings are located in the enclosure between the concentrate supply and the collection chamber. A weep hole between the sealing rings vents any concentrate which may leak past the sealing ring nearest the concentrate supply.

Leakage of fluid concentrate in the sepd permeate which may arise because of the high pressure differential across the walls of the filaments is completely prevented. (24pp)

DUPO D15 79543 D/43 = EP --38-695
Storage of reverse osmosis membranes - in aq. solns. contg. alkaline earth and/or alkali metal ions

DU PONT DE NEMOURS CO 18.04.80-US-141661

A88 J01 + P34 (A23) (28.10.81) *US4293-420 B01d-13/04 + A611-02/18

16.04.81 as 301712 (BZ) (E) US3850797 J53005078 DE2441311 FR2197921 US3878109 FR2297223 FR2231711 US3993625 2.Jnl.Ref E(BE CH DE FR GB IT LI NL)

Polyamide reverse osmosis membranes are stored by immersing the membrane in an aq. medium. The improvement comprises adding to the aq. medium at least one metal ion selected from the sp. consisting of about from 8 x 10 power minus 4 to 8 x 10 power minus 2 moles per liter of an alkaline earth metal ion and about from 8 x 10 power minus 3 to 4 x 10 power minus 1 moles per liter of an alkali metal ion. (10pp)

BARD- ★ D15 82003 D/45 ★ EP --38-752
Separator for two immiscible liquids of different densities - partic oil from detergent fluids used for industrial degreasing of machined components

ETAB BARDET A SA 21.04.80-FR-008931

(28.10.81) B01d-17/02 C02f-01/40

16.04.81 as 400613 (448JB) (F) No-Citns. E(AT BE CH DE GB IT LI LU NL SE)

Installation for the sepn. of two immiscible liqs. of different densities, comprises a vessel internally partitioned to provide a sepg. chamber and reception chambers for heavier and lighter phases respectively. A mixt. is introduced to the sepg. chamber via a static distributor located between an upper collector for lighter phase and a lower collector for heavier phase. The sepd. phases are channelled from their collectors to corresp. reception chambers.

The sepg. chamber is partitioned from the rest of the vessel

space by an upwardly convergent, conical funnel at the top of the sepg. chamber. The space above the funnel is vertically partitioned into a lighter phase reception chamber contg. the top outlet from the funnel, and a heavier phase reception chamber. Used for industrial sepn. of oil polluting detergent cleaning fluids which have been used for degreasing machined metal component. Extremely compact design because no turbulence is created to oppose coalescence of minute oil globules. Sepn. efficiency level enables this design to replace much larger separators. (26pp)

LABO ★ D15 82067 D/45 ★ FR 2479-251
Compsn. for dispersing oil spills on the surface of water - contg. polyethylene glycol or sorbitan ester(s) of fatty acids, glycol ether solvent and calcium or magnesium sulphonate

LABOFINA SA 28.03.80-FR-006924

A97 H03 (02.10.81) C08k-03/32

28.03.80 as 006924 (513AS)

In a method for dispersing oil spills on the surface of water, a dispersing compsn. is applied to the oil comprising (a) a mixt. of surfactants chosen from polyethyleneglycol esters of 12-20C fatty acids or sorbitan esters of these acids, (b) a glycol ether type solvent used alone or mixed with water or a paraffinic solvent and (c) a calcium- or magnesium sulphonate or mixts. of these.

Component (a) is pref. sorbitan monolaurate, the monolaurate of polyethylene glycol with a mol. wt. of 200-600. Ethoxylated tall oil or mixts. if these component, (b) is esp. ethylene glycol monobutylether, diethyleneglycol monobutyl ether or diethylene glycol monoethyl ether. The solvent is used alone or mixed with water or a 10-14C (iso)paraffin.

The compsns. have a cloud point below -10 deg.C, a flash point of above 70 deg.C, a sufficiently low viscosity to enable handling at low temps. and low toxicity w.r.t. marine flora and fauna. They are able to emulsify most types of oil into emulsions having little tendency to reform into layers by coalescence, and do not retard the kinetics of biodegradation of the treated hydrocarbons. (16pp)

ATCM ★ D15 82077 D/45 ★ FR 2479-437
Vapour condenser partic. for solar powered desalination evaporator - has very thin plates alternating with horizontal and vertical corrugations

ATELIERS ET CHANTIE SOC 25.03.80-FR-006590

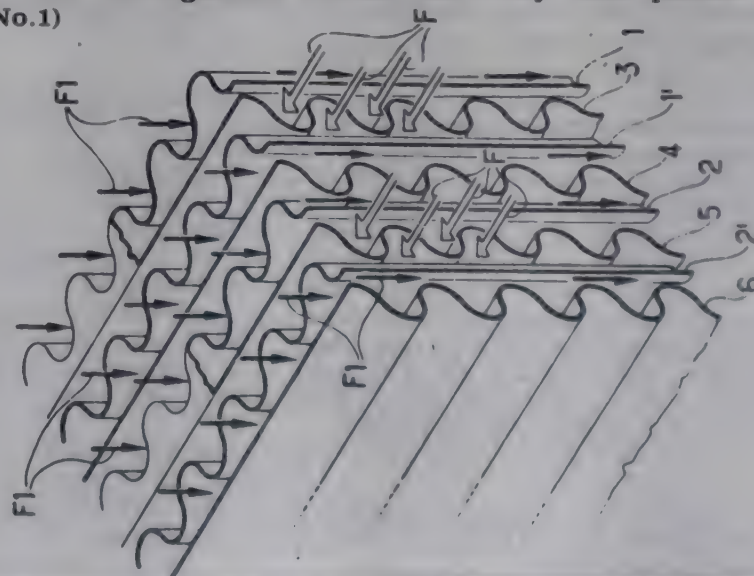
Q78 (02.10.81) C02f-01/14 F28b-01/02 F28f-03/04

25.03.80 as 006590 (448DH)

The heat exchanger comprises a pair of corrugated plates, each with a thickness of only a few tenth of a mm. The corrugations of both plates are vertical sandwiched between the two vertical corrugation (VC) plates is a third, identical plate with its corrugations disposed horizontally. The plates are connected for vapour to flow between the two VC plates while a cooling liq. is trickled down the outer surfaces of these VC plates.

Sandwich type heat exchanger modules as described above can be combined in a multi-module heat exchanger. Each pair of adjacent modules has an intermediate separator plate identical to the middle plate of each module. The plates can be made of plastics or metal.

Highly efficient heat transfer is achieved which is vital when the temp. difference between vapour and cooling liq. is quite small. The corrugations stiffen the very thin plates. (5pp Dwg.No.1)



OCCI D15 79011 B/43 = GB 1601-669
Recovery of calcium fluoride from pond waters - by two stage treatment with calcium carbonate or oxide to ppte. solids

OCCIDENTAL PETRO CORP 22.12.77-US-863085 (11.10.77-US-840533)

C04 E33 (E36) (04.11.81) *US4171-342 C01f-11/22 + C01b-25/32

30.05.78 as 024298 Add to 1505146 (397RH)

Method of treating waste water resulting from the wet prodn. of phosphoric acid and contg. fluorine and phosphorous values, the two stage addn. of calcium carbonate to the agitated soln. was described in GB1505146. The method is improved by substituting at least part of the calcium carbonate by calcium oxide in the first and/or second treatment stages. Pref. the calcium oxide is added to the waste water as an aq. slurry.

The calcium fluoride and phosphate recovered from the treatment can be further treated to give hydrogen fluoride and phosphoric acid while the calcium oxide can be recycled. (3pp)

ESSO D15 45907 A/26 = GB 1601-671
Gravity separator esp. for oil and water mixt. - uses filter and suction pump to reduce oil content to several parts per million in water

EXXON RES & ENG CO (SERE) 23.02.77-FR-005315

J01 (04.11.81) *BE-864-141 B01d-17/02

23.02.78 as 007274 (006MR)

Separator for two immiscible liqs., specifically oil and water has a first sepn. zone which promotes gravity separation of one liq. from the other, the residual second liq. being fed to a second sepn. zone comprising a filter bed operating under suction and active to retain coalescing droplets of the first liq. still remaining admixed with the residual second liq.

Pref. the residual second liq. is the water, the filter bed being of pulverulent or granular material and located below a prefilter. (8pp)

SULZ D15 76709 A/43 = GB 1601-726
Heat exchanger for slurries - having central part for one stream and outer section for other both agitated (BE 18.10.78)

SULZER BROS LTD 02.12.77-CH-014738 (18.04.77-CH-004752)

J08 Q78 (04.11.81) *DE2804-431 F28d-01

22.02.78 as 007071 (006MR)

Heat exchanger for direct heat exchanged between two liq.-solids mixts., esp. sewage or sludge, comprises a heat-transfer partition between prim. and sec. chambers which is completely surrounded by the prim. chamber.

Both chambers have their own inlet and outlet, and material is pumped through the prim. chamber by an immersed agitator. Specifically several sec. chambers are within the prim. chamber and are connected in parallel. (10pp)

KOBM D15 86475 A/48 = GB 1601-969
Tubular membrane appts. with self cleaning action - by passing solid spheres down sepn. passage at intervals to clean surface from injection point

KOBE STEEL KK 16.05.77-JP-056836

J01 (04.11.81) *DE2821-384 B01d-13

12.05.78 as 019268 (006TM)

Tubular-membrane ultrafiltration and reverse osmosis appts. is described in which the interior of the tubular membrane is periodically cleaned of filtrate by passing a ball through it from a holder which is movable to present the ball to the ingoing material for filtration.

The ball is switched to the outgoing concentrate material stream, which carries it back to the holder which has been moved back again to receive it.

Appts. is simple, and permits easy feeding and circulation of balls even in continuous use. Used in purification of turbid water or concn. of liqs. (14pp)

TEIJ D15 88152 A/49 = GB 1602-085
Permselective membrane contg. epoxy polymer - modified with polyamine and crosslinked, esp. for desalination

TEIJIN KK 13.09.77-JP-109401 (25.05.77-JP-059930)

A88 J01 (A21) (04.11.81) *DE2822-784 B01d-13/04

19.05.78 as 020875 (+ 27.5.77-JP-060944) (982TM)

A permselective membrane comprises a thin permselective film of a polymeric material prepd. by crosslinking a poly. addn. prod. between a polyepoxy cpd. and a polyamino cpd. having at least 2 amino gps. which can react with epoxy gps. with an aromatic, heterocyclic or alicyclic cpd. contg. at least two functional gps. selected from acid halide, sulphonyl halide, isocyanate and acid anhydride gps.

Pref. the poly-addition prod. contains OH gps. resulting from the ring opening of epoxy gps. in a OH equiv. of at least 0.5 mmilli equiv. per gram of the poly-addition prod. The poly-addition prod. has an amino equiv. of 1.0-40 milli equiv. per gram of the poly-addition prod. (44pp)

YOSH/★ D15 82378 D/45 ★J5 6121-607
Liq. filter - comprising vertical tank contg. tube with vertical centre pipe surrounded by annular wall with through holes

YOSHIHARA N 29.02.80-JP-025789

P14 (24.09.81) A01k-63/04 B01d-35/02

29.02.80 as 025789 (26HM)

Device is for filtering water in a pond e.g. in fish farming. The

water is sucked into a filter tank and the filtered water is returned to the pond. A tube is housed in a vertical tank and has a top cover. A conical bottom space is formed in the tank, beneath the tube. The object is to increase the filtering efficiency, without clogging.

The novelty is that a vertical centre pipe is disposed in the tube and surrounded by an annular wall having through holes, so that an annular space is formed between the tube and wall and charged with a filtering medium. The filtrate is drained from the centre pipe. (4pp)

YAWA★ D15 82379 D/45 ★J5 6121-608
Filtering medium for liquids contg. e.g. iron ore suspension comprises sawdust and other combustible grains, can be burnt after use

NIPPON STEEL CORP 01.03.80-JP-025628

(24.09.81) B01d-39/04

01.03.80 as 025628 (26NS)

Medium is for filtering e.g. dirty water contg. suspended solids ie. iron ore, coal, iron oxides etc. The medium is composed of sawdust of 50 to 90% of less than 2mm in grain size and other combustible grains of 10 to 50% of more than 2mm in meat grain size, than the sawdust. The grains may be cokes, coal and chaff and pref. have a density not very different from that of the sawdust. The medium may be packed in a pipe to form a filtering bed.

The liqs. can be filtered without clogging. (3pp)

MITU★ D15 82411 D/45 ★J5 6121-682
Purificn. of waste water contg. organo-mercury cpds. - by electrolysis and adsorption with activated charcoal and/or chelate resin

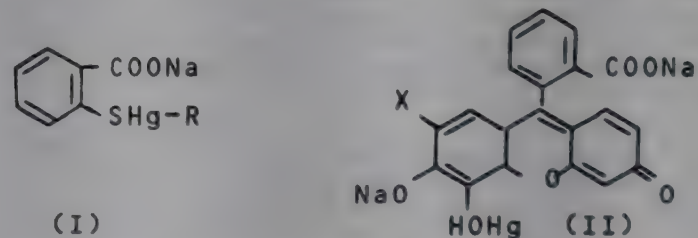
MITSUBISHI CHEM IND KK 29.02.80-JP-025012

E12 J03 (24.09.81) C02f-01/28

29.02.80 as 025012 (34KB)

A waste water contg. organic Hg cpds. of formula (I) and (II) (where R is 1-8C alkyl, and X is halogen atom), is effectively purified by electrolysis treatment by means of cathode and anode inserted into the water to decrease the content of the organic Hg cpds. down to about 5 ppm of the total Hg concn. and subjecting the treated liquor to absorbing treatment with activated charcoal and/or chelate resin to decrease finally the total Hg concn. downwards of 5 ppm.

Al is used as the anode, and Al, Fe or carbon is used as the cathode. When using Al for both of the electrodes, a film is hardly formed on the surface of the anode and electric current is kept under constant value. The electrolysed water is adjusted to a pH of 6-7 to remove ppte. and the activated charcoal treatment is carried-out at a pH value of 3-6, (pref. 4). (10pp)



EBAI★ D15 82412 D/45 ★J5 6121-683
Treatment of iron and manganese ions contg. liquor - by permeation through membrane by compression, under reducing atmos. to maintain lower ion valency and prevent water fall-off

EBARA INFILCO KK 29.02.80-JP-025531

E31 J01 (24.09.81) B01d-13 C02f-01/44

29.02.80 as 025531 (34RH)

In recovery of water having very low iron and manganese ions content and also very low salt concn. from iron and manganese ions-contg. liquor by permeating through membrane by compression so as to leave the solutes in the residual liquor in a conc. state, the improvement comprises maintaining the system under reducing atmosphere so that the iron and manganese ions exist in the form of Fe²⁺ and Mn²⁺, respectively so that decrease the passing rate of the membrane-penetrating water is suppressed. To maintain the system under reducing atmosphere, a reducing agent e.g. NaHSO₃ etc. may be added, or a germicide e.g. formalin, Na azide and Cu sulphate etc. Further for this purpose, the system may be kept under acidic state or subjected to UV rays. By this process, water is not only free of Fe³⁺ and Mn²⁺ but also by-produced soluble salts is obtd. and is suitable for use as industrial water. (5pp)

NITT-★ D15 82414 D/45 ★J5 6121-693
Floating solid water treating agent mfr. - by kneading active agents with water soluble, foamable solid of liq. carrier e.g. water glass or alkali metal silicate etc. and calcining

NITTO KAKO KK 28.02.80-JP-023334

(24.09.81) B01d-19/04 C02f-01/50 C02f-05 C04b-21 C23f-11 C23f-14

28.02.80 as 023334 (34BZ)

A porous sponge-like floating solid water-treating agent which floats on the surface of waters when it is thrown thereinto and is slowly and continuously dissolved from a part immersed in water is prep'd. by calcining a kneaded mixt. comprising chemical agent e.g. anti-scaling agent, corrosion-suppressing agent, sterilising agent, pH-adjusting agent, foam-extinguishing agent, etc. water-soluble and foamable liq. or solid inorganic carrier e.g. water glass or alkali metal silicate etc. and if necessary water so as to give solids having s.g. lower than that of water. If necessary inorganic foaming assistant e.g. NaHCO₃ etc. may be used together with the inorganic carrier to make easy the s.g. adjustment of the solid water-treating agent. By calcining furnace at 200-600 deg.C for 15-60 mins., the shaped prod. becomes porous and sponge-like by evapn. of water and thermal decompsn. of the foaming assistant. (4pp)

UYAM/★ D15 82579 D/45 ★J5 6122-803
Anion exchange resin prodn. - by suspending solid PVC in solvent, reacting with azido ion and then with phosphine cpd. to give phosphonium salt

UYAMAS 03.03.80-JP-025288

A91 (A14) (26.09.81) B01j-41/14 C08f-08/40

03.03.80 as 025288 (78RH)

Prodn. of anion exchange resin comprises suspending solid polyvinyl chloride in solvent, reacting with azido ion in the heterogeneous system to produce polymer contg. azido gp. and reacting suspended polymer with phosphine cpd. to obtain polymer having phosphonium salt. Insoluble powdery anion exchange resin having phosphonium salt structure is obtd. by the simple process from the cheap raw material.

The anion exchange resin is produced by suspending powdery polyvinyl chloride in mixed solvent of water and dimethylformamide adding sodium azide to the suspension, reacting them under heating to obtain powdery polyvinyl chloride having azido gp., suspending the product in organic solvent such as benzene or acetonitrile, reacting the product with phosphine such as triphenyl-phosphine to change the azido gp. into phosphine imine structure and heating thus obtd. powdery polymer having phosphine imine structure to obtain the insoluble cross-linked polymer. (3pp)

AGEN★ D15 82685 D/45 ★J5 6123-408
Hollow acrylonitrile copolymer fibre prodn. - by extruding inorganic solvent soln. of acrylonitrile copolymer through annular slit, introducing coagulating liq. into hollow portion, etc.

AGENCY OF IND SCI TECH 27.02.80-JP-022778

A14 F01 J01 (A88) (28.09.81) D01f-06/18

27.02.80 as 022778 (172PW)

Ten to 35 wt.% inorganic solvent soln. acrylonitrile copolymer with acrylonitrile content of at least 60 wt.% is extruded through annular slit of spinneret. Liquid with high coagulating ability is simultaneously introduced into the hollow portion. The spun fibre is led into a bath contg. liquid incompatible with the solvent, such as liq. paraffin.

Hollow fibres has dense innermost layer with micropores of less than 100 Angstroms in dia. In the middle layer are formed numerous macrovoids which are radially arranged and show continuous increase in size as they extend toward outside until they reach the max. size in the outermost layer. Some of the macrovoids come up to the outer surface of fibre. The areas around the macrovoids have porous network structure with voids of 100 Angstroms to 10 microns in dia.

The hollow fibres shows high water penetration and is suitable for ultrafiltration for medical purposes. (5pp)

MATU D15 57836 A/32 = J8 1042-963
Reverse osmosis membrane - comprises porous sheet materials having different hole area and a semipermeable membrane

MATSUSHITA ELEC IND KK 20.12.76-JP-153834

A88 J01 + P73 (08.10.81) *J53076-978 B01d-13 + B32b-27 C08j-05/18

20.12.76 as 153834 (34AS)

The reverse osmosis membrane comprises at least 2 porous sheet like material piled-up on one another, and having different hole area, and e.g. made of cotton, wool, acetate, polyester, area, and e.g. made of cotton, wool, acetate, polyester, polyamide, Vinylon, etc. and a semi-permeable membrane. The porous sheet-like material is put in the semi-permeable membrane such that the porous sheets have the same surface as that of the semi-permeable membrane.

The reverse osmosis membrane is produced e.g. by applying

the porous sheet-like materials on a base plate e.g. glass plate, etc. and applying a doping liquor, e.g. comprising 25 pts. wt. acetone between the sheets and on the surface of the sheet, followed by casting the upper surface with a glass rod and throwing into H₂O to gel. The membrane has good high temp. and pressure characteristics. (J53076978) (2pp)

VEND- D15 82083 B/17 = J8 1042-964
Device for sepg. ions from aq. soln. - comprises polyethylene, polypropylene, polysulphone or PTFE fibrous material in cylindrical casing

VENDO RES INC 27.03.78-US-890149 (20.06.77-US-808138)

A88 J01 M25 (08.10.81) *J54017-381 B01d-13 + C02f-01/44

16.06.78 as 073138 (15TM)

Device consists of a cylindrical casing sealed with terminal plugs and a supporting membrane system, consisting of a slender fibrous material extending from one plug to the other. The internal cavity of the fibrous material is connected with the spaces through the plugs. There is an inlet and outlet for the soln. to be treated.

The cylindrical casing is tightly sealed with caps. The soln. is recurrently fluidised inside the device.

Device is used to remove copper ions, uranium ions, quat. ammonium ions, chromium ions, iron ions or organic phosphate ions from an aq. soln. (J54017381) (17pp)

MASU/★ D15 82795 D/45 ★J8 1042-966
Waste liquor treatment appts. - has cylindrical reaction tanks, maturing tanks and square sedimentation tanks (J5 18.5.78)

MASUZAWA H 27.10.76-JP-128936

(08.10.81) B01d-21/* B01f-03/08 C02f-01/52

27.10.76 as 128936 (26KB)

Appts. for purifying an industrial waste liquor comprises cylindrical reaction tanks, square cylindrical maturing tanks and square sedimentation tank. The raw liquor is reacted with chemicals to form harmless liq. in each reaction tank. (J53054854) (6pp)

KINK/★ D15 82796 D/45 ★J8 1042-967
Sludge scraper for removing sludge from pond - comprising suction structure reciprocally movable on suction pipe fixed on bottom of pond and pump connected to pipe (J5 7.3.79)

KIN K 08.08.77-JP-095413

(08.10.81) B01d-21/24

08.08.77 as 095413 (26RH)

An appts. is claimed for automatically removing a pptd. dirty sludge in the bottom of a sedimentation pond. It comprises a suction structure reciprocally movable on a suction pipe fixed on the bottom of pond, and sludge pump connected to the suction pipe. (J54030654) (4pp)

KURK D15 12714 B/07 = J8 1042-977
Removing impurities from liq. using precoated filtration element - which is separately coated with anion and cation exchange resins

KURITA WATER IND KK 04.06.77-JP-065282

A91 J01 (08.10.81) *J54001-278 + B01j-47 C02f-01/42 G21f-09/12

04.06.77 as 065282 (51NS)

In precoating a filtration element with a powdery ion exchange resin to obtain a precoated filtration element through which a liquor to be treated is passed to remove impurities, the improvement comprises separately precoating the filtration element with a powdery cation exchange resin and a powdery anion exchange resin in any order to form double layers of the resins on the filtration element and where a macro-molecular electrolyte is added to the resin or a fibre material is added to it. (J54001278) (3pp)

NREN D15 58905 B/32 = J8 1042-978
Regenerating ion exchange resin in a fixed bed - includes downwardly passing regenerant through resin layer and then upwardly passing fresh regenerant through resin

NIPPON WATER TREATM KK 12.12.77-JP-149010

J01 (08.10.81) *J54081-185 + B01j-49

12.12.77 as 149010 (55AS)

Regeneration reagent is divided into portions and one part is led downwardly through the resin layer from the top and waste liq. is withdrawn from the bottom. The rest of the reagent is led upwardly through the resin layer from the bottom and after it is retained, waste liq. is taken from the bottom.

This process can be applied to any ion-exchange resin but is esp. advantageous for resins which change their volume greatly on regeneration, such as weak basic anion exchange resin. Compared with conventional methods, less regeneration reagent is used and efficiency is improved. (J54081185) (4pp)

AGEN D15 73667 A/41 = J8 1042-986
Adsorptive treatment of organic effluent - by thermally cracking and contacting resulting gas with fine carbonaceous particles
 AGENCY OF IND SCI TECH 18.02.77-JP-016165
 (08.10.81) *J53101-849 + B01J-20/20 C02f-01/28
 18.02.77 as 016165 (6PW)
 Organic effluent treatment involves (i) trapping fine carbonaceous particles co-existent in a gas generated by the thermal cracking of organic solid, allowing thus collected particles to contact organic effluent to adsorb the organic matter, and (ii) filtering off the fine carbonaceous particles that have adsorbed the organic waste.

Carbonaceous particles which have adsorbed organic matter can be subjected to trouble-free disposal by incineration or land-filling, which eliminates the need for desorption required in the use of conventional adsorbent, providing low-cost treatment. Biological treatment of thus pretreated organic effluent enables the use of more compact aeration tank.

The treatment is esp. effective for the removal of high-molecular organic acids and aldehydes. (J53101849) (7pp)

AGEN D15 92163 A/51 = J8 1042-990
Removing formaldehyde from waste water - by treating with 2-hydrazo-benzothiazole (deriv.)

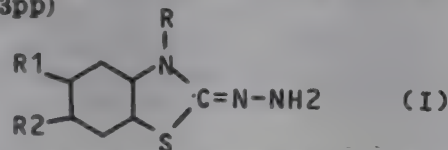
AGENCY OF IND SCI TECH 21.04.77-JP-045183

E13 (08.10.81) *J53130-857 + C02f-01/58

21.04.77 as 045183 (6PW)

The effect of the agent is independent of pH of the waste water to be treated. Nearly 100%-HCHO removal may be achieved at pH 5 to 10 and 10-30 deg.C. Used e.g. to treat effluent from hospitals.

The agent has formula (I), where R, R1 and R2 are H or substituents. In the latter case R is pref. a 1-5C alkyl, R1 is NO₂, NH₂ or CN and R2 is Cl. (J53130857) (3pp)



ATAK- D15 88700 A/49 = J8 1042-991
Removal of phosphate ions from water - by adding calcium ions, adjusting pH with alkali and passing through bone charcoal

ATAKU KENSETSU KOGY 06.04.77-JP-039733

(08.10.81) *J53125-361 + C01b-25/32 C02f-01/58

05.04.77 as 039733 (TM)

Removal of PO₄³⁻ from water is claimed which comprises (i) adding Ca³⁺ to water to provide P/Ca-atomic ratio of 3/5 or smaller; (ii) adjusting pH of the soln. to 7.5-8.5 with an alkali, e.g. Ca(OH)₂ with stirring and (iii) passing thus pH-adjusted soln. through a suitable amt. of a bone coal layer.

Used in dephosphorisation of secondarily treated sewage and human manure soln. Dephosphorisation is not accompanied by generation of much sludge. Use of a low priced alkali in small quantities affords economical and high PO₄³⁻ removal. (J53125361) (4pp)

DAIK ★ D15 82799 D/45 ★ J8 1042-993
Heavy metals-contg. waste waters treating appts. - comprising aerator, pptn. separator and filter connected in series (J5 12.3.79)

DAIKIN KOGYO KK 18.08.77-JP-098240

(08.10.81) C02f-03/06

18.08.77 as 098240 (26HM)

Appts. is for treating waste waters, contg. heavy metals. It comprises an aerator, pptn. separator and filter connected in series. The separator consists of pptn. tanks connected in series to separate the supernatant, without using pumps. (J54033355) (5pp)

HITA D15 30564 A/17 = J8 1042-995
Anaerobic decomposition of biochemical waste - after basifying to alkaline pH and decomposition by heating, esp. to accelerate fat and protein degradation

HITACHI KK 18.10.76-JP-123833

+ P43 (08.10.81) *DE2746-752 + B09b-03 C02f-03/28 C02f-11/04

18.10.76 as 123833 (JB)

Biochemical waste is decomposed anaerobically by (a) adding alkali to the biochemical waste-contg. aq. soln. pref. to set pH to at least 8, and heating, pref. to 30-160 deg.C, to decompose the biochemical waste, and then (b) effecting anaerobic decompsn.

Process is partic. useful for decomposing waste contg. proteins and fats, e.g. activated sludge, garbage, sewage, waste waters from alcohol distn. processes and conc. waste waters from food industry.

Pre-treatment lowers fermentation decompsn. time by more than 40%. Composn. of gas formed is similar. Quantity of alkali added in pre-treatment step can cover alkali quantity added to liquefying tank for neutralising fatty acids, without addn. of fresh alkali. (J5304055) (5pp)

AIRP D15 55841 Y/32 = J8 1042-997
Activated sludge treatment ok phosphate-contg. aq. effluent - with prim. anaerobic stage and sec. aerobic stage to prevent formation of thread-like microorganisms

AIR PRODUCTS & CHEM INC 12.04.76-US-876286

(08.10.81) *BE-853-318 C02f-03/30

11.04.77 as 041264 (513TM)

Process for retarding the excessive formation of thread shaped biological masses during the operation of activated sludge plants, comprises (a) mixing a circulating activated sludge with BOD (biological oxygen demand)-contg. effluent water input; (b) maintaining the first contact zone under anaerobic conditions such that it remains virtually free from NO-x and has a concn. of less than 0.7 ppm dissolved O₂, so that non thread shaped microorganisms are selectively formed which can absorb the BOD. Process further comprises (c) oxygenating the mixed liquor in a subsequent oxygenation zone to remove the BOD, by passing in an oxygen-contg. gas to a dissolved O₂ content of at least 1 ppm; (d) transferring the oxygenated mixer liquor from the oxygenation zone into a settling zone, where purified supernatant liquor is sepd. from the settled sludge and (e) recycling part of the sludge to the first contact zones for the treatment of further effluent water.

Process eliminates the formation of thread-like biological material and gives a sludge with improved settling properties. Bound phosphates in the effluent water are eliminated. (J52124768) (10pp)

AGEN D15 00719 C/01 = J8 1042-998
Treating waste water from thermal decomposition of solid wastes - using oil matter and sepd. scum as fuel for thermal decomposition

AGENCY OF IND SCI TECH 12.05.78-JP-055519

(08.10.81) *J54147-653 + C02f-01/52 C02f-09

12.05.78 as 055519 (34DH)

In treatment of waste water resulting from thermal decomposition of municipal solid wastes, improvement comprises (a) sepg. oil component by flotation followed by centrifugal sepn. to separate solids; (b) contacting the waste water thus treated countercurrently with air and steam, followed by sepg. floating scum and uncondensed volatile matter from condensed. Then (c) adjusting pH of water to about 10, followed by addn. of polymer coagulant and ferrous salt to separate heavy metals and reducing matters by coagulation, then adjusting pH of the sepd. liquor to 10-12, and adding oxidising agent to effect initial oxidn. while maintaining the oxidn. potential of at least 300 mV, then adjusting its pH to 8-9 and effecting secondary oxidn. while maintaining the oxidn. potential at at least 650 mV to decompose cyan by oxidn.

Then (d) adding polymer coagulant to separate by coagulation heavy metals and reducing matters, followed by neutralisation, sand filtration and activated charcoal treatment; and (e) recycling the oil component and the solids sepd. in step (a), and scum and the volatile component sepd. in step (b), and the sludge obtd. in step (c) and (e) by concn. and dewatering, as the heating source for the thermal decomposition, so that harmful matters, e.g. oil component, solids, heavy metals and cyan etc. are effectively removed. (J54147653) (8pp)

CUNN/ D15 59648 Y/34 = J8 1043-120
Removal of chromium from aq. effluents - by pptn. with barium cpds. and an acetate, for subsequent re-use in electroplating

CUNNINGHAM J 13.02.76-US-657885

E33 J01 M11 (09.10.81) *DE2630-544 C25d-21/18 + C02f-01

12.07.76 as 082828 (922TM)

The water is treated, at pH less than 6, with BaCO₃ and/or Ba(OH)₂ and an acetate (II) at wt. ratio of (I):Cr of 1-6:1 and a (I):(II) ratio of 3-15:1. The resulting insol Cr material is then filtered through a first acid-resistant filter medium, the Cr material recovered and the Ba material removed by treatment of the Cr material with an S-contg. material, whereby the Cr material is converted to chromic acid and the Ba pptd. as BaSO₄.

The product of this treatment is then passed through a second acid-resistant filter material, the insoln. BaSO₄ removed, the filtrate collected and its Cr content re-used in a chrome-plating operation.

The process provides a simple method for total recovery (and re-use) of expensive Cr. (J52098630) (7pp)

NITW D15 57283 B/31 = J8 1043-313
Phosphoric acid recovery from aluminium polishing waste - by addn. of alcohol e.g. methanol, sepn. of aluminium phosphate ppte., then fractional distn.

NITTETSU MINING KK 08.12.77-JP-146561

E36 M14 (12.10.81) *J54079-130 + C23f-03

08.12.77 as 146561 (53AS)

Method for recovering phosphoric acid in waste of a chemical

polishing liquid for aluminium metal or alloy materials, comprises (1) adding an alcohol to the waste so as to be dissolved mutually with the phosphoric acid therein and to separate the precipitating aluminium phosphate and (2) distilling the sepd. mother liq. to fractionally distill the alcohol while the phosphoric acid is recovered.

The chemical polishing phosphoric acid liquid is ineffective unless the concn. of H_3PO_4 is over 70% the waste is generally discharged with H_3PO_4 concn. over 70%. It is not concentrated to crystallise the aluminium phosphate but its viscosity is reduced when e.g. methyl alcohol is added to recover the phosphoric acid in an amt. of over 70%. (J54079130) (2pp)

METG D15 10352 T/07 = NL-168-198
Cyclone furnace - using drying and comminuting for sludge sediment, prior to incineration

METALLGESELLSCHAFT AG 29.07.70-DE-037561

Q73 (16.10.81) *NL7108-522 + C02f-11/06

21.06.71 as 008522 (160TM)

The equipment dries and then burns liq., viscous or solid waste material, partic. deposited sludge, having a fluidised-bed furnace burning the material arriving from the drier. The bed is in a gas-permeable grate with a supply chamber for the fluidising gas underneath, the hot gases from the furnace being delivered to the drier.

The drier is a multi-level oven on the furnace, having a top inlet for the waste material and rotary stirring and disintegrating members at each level, all mounted on a central vertical shaft. Ports are provided for the rising hot gases from the furnace, and for the material between the levels and between the lowest level and the furnace. A gas discharge pipe with fan leads from the top of the drier to the furnace combustion zone, while the furnace has a top outlet for surplus hot gases. (5pp)

SKRI/ ★ D15 82849 D/45 ★ SU-267-500
Mercury removal from waste water - includes acidification, oxidn. and passage through ion exchanger or pptn. as sulphide

SKRIPNIK V A 13.09.68-SU-270344

M25 P81 (10.07.81) G02f-01

13.09.68 as 270344 (815VE)

Mercury can be removed from aq. wastes by acidification of the waste to a pH of not more than 4, treatment with an oxidising agent of ozone or chlorine in an amt. of 30-50 ml/l. waste, then pptn. as sulphide or passage through an ion exchange resin.

This method converts metallic Hg to an ionic form, when it is readily sepd. The method gives water contg. only 0.001-0.002 mg/l. Hg which is below the min. toxicity level of 0.005 mg/l. for Hg. (2pp)

VODG = ★ D15 82909 D/45 ★ SU-802-184
Automatic control of biological sewage treatment - involves monitoring oxygen consumption rate of activated sludge bacteria

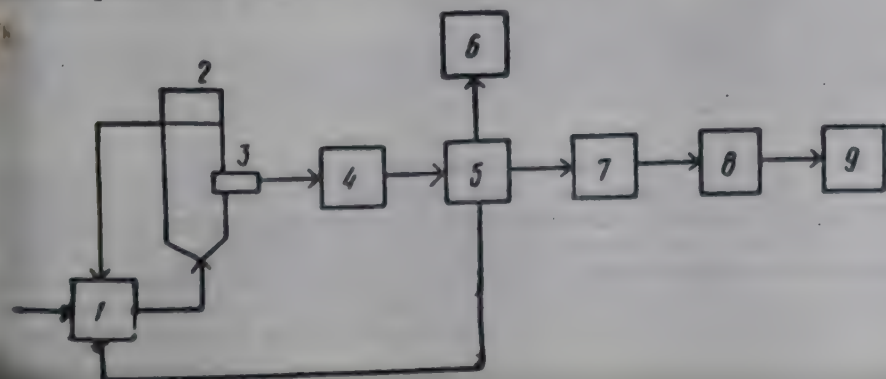
VODGEO WATER SUPPLY 09.10.72-SU-835086

T06 (07.02.81) C01f-03 G05d-27

09.10.72 as 835086 (39GW)

Device is used in automatic control of biological purifcn. processes for sewage and industrial wastes. It includes a feeder (1) to extract sludge mixt. from the aeration basin and to pass it into a reactor (2), where it is circulated for a time set by the programmed controller (5), depending on the sludge flow-rate and the dynamic characteristics of a pick-up (3) for a dissolved oxygen concn. meter (4). After a set time, the controller joins the meter output to a memory (6) and stops the sludge flow into the feeder.

During the following measuring cycle for the oxygen consumption rate of the microorganisms in the activated sludge, the controller cuts in a timer (7) and cuts it off when the concn. of dissolved oxygen has dropped by a set amount. A function generator (8) compensates for the effect of the dynamic properties of the meter (4) on the measurement. The oxygen consumption rate is written into the memory (9). The process provides a very accurate measurement of the oxygen consumption rate. Bul. 5/7.2.81. (3pp Dwg.No.1)



KRYL/ ★ D15 83002 D/45 ★ SU-803-950
Water treatment etc. Ion exchange sorption process - includes pretreatment of initial soln. to remove gases dissolved in water by application of vacuum

KRYLOV O T 02.08.79-SU-805057

J01 M25 (15.02.81) B01d-15/04

02.08.79 as 805057 (135VE)

The concn. and extn. of mineral materials from their aqs. solns. by application of ion-exchange resins used in chemical, hydrometallurgical, etc. inds., is ensured by pre-treatment of the initial solns., eliminating gases dissolved in water.

For this purpose, the initial soln. is placed in suitable strong-walled vessel and vacuum is applied to it in the range of -0.5 to -0.7 atm, maintained for 10-15 min. Then, after atmos. pressure is returned, the required quantity of ion-exchange resin is added to the soln. The sorption process should be performed within 25-45 min. after removal of vacuum. (3pp)

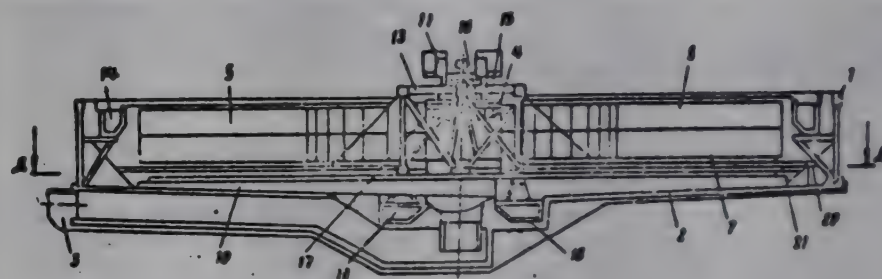
DZER = ★ D15 83004 D/45 ★ SU-803-952
Radial shelf settling tank to clarify water - has suspension admission and thin-layer module over which liquid moves slowly to deposit solids which are scraped away

DZERZHINSK CHEM EQU 26.06.78-SU-633798

(15.02.81) B01d-21/24

26.06.78 as 633798 (29MI)

Radial shelf settling tank for separating suspensions under the effects of gravity, e.g. in the treatment of effluent liquids to remove mechanical impurities, in the chemical, papermaking, and other industries, has cylindrical body (1) with conical bottom (2), means to admit the original liquid (3) and remove the clarified water (14), mechanism for scraping the precipitate comprising the support ribs (9) and thin-layer modules above them, made as blocks of loading platform (6,7). Utilisation effectiveness is increased, on account of guaranteeing movement of the blocks in the thin-layer module and ease of maintenance, by fitting circular guiding tracks and rollers carrying the frame (13). (5pp Dwg.No.1)



FEPU ★ D15 83190 D/45 ★ SU-804-577
Processing waste boiler water - by evapn. and mixing with water from sodium cation filter previously, evaporated to ppte. sodium chloride

DON FERR METALEFFL 23.05.78-SU-619081

(17.02.81) C02f-05

23.05.78 as 619081 (815VE)

Waste boiler water such as drain water from steam generators is treated to remove salts by evapn. to 20-30% salt concn. then mixing with waste water from a sodium cation filler, evapd. prior to mixing to give NaCl ppte. and a 35-40% soln. of $CaCl_2$ and $MgCl_2$.

After mixing, a ppte. formed which was filtered off, and the filtrate was neutralised with hydrochloric or sulphuric acid. Compared to the previous method of mixing the liquors prior to evapn., the process permits extraction of twice the amt. of sodium chloride, sepn. of sodium sulphate, and results in a 3-fold redn. in the consumption of reagents. The treated water is free of salts, and causes no problem of contamination when disposed of by burial. Bul. 6/15.2.81 (6pp)

USDA ★ D15 83268 D/45 ★ US 4295-333
Melting icebergs to produce fresh water - also using warmer surface sea-water, evaporated, and used to operate turbine

US SEC OF AGRICULTURE 11.07.79-US-056652

Q55 (20.10.81) F03g-07/04

11.07.79 as 056652 (295HM)

Fresh water is produced by evapg. warm surface sea water to yield water vapour. Mechanical energy is generated using the vapour which is subsequently condensed by contacting it directly with cold melt water from an iceberg. This produces a mixt. of condensed vapour and melted iceberg water.

The mixt. is contacted with the body of the iceberg to melt it and produce cold melt water. The contact is made so as to produce a turbulent flow of the cold melt water. A portion of the mixt. is used as fresh water produce while the remainder is cycled for direct contact with the vapour.

Used for producing water from an iceberg partic. for irrigation

In arid areas of the world. The amt. of fresh water produced is greater than the amt. of cold water obtd. from melting the iceberg alone. Mechanical energy is also produced. (9pp)

NAZA/ ★ D15 83363 D/45 ★ US 4295-946
Electrochemical purifcn. of contaminated liq. - with electrolyte cooled and contaminated liq. warmed prior to mixing
NAZARIAN M M 08.08.80-US-176334

A35 J03 (20.10.81) C02f-01/46
08.08.80 as 176334 (295HM)
A contaminated liq. is electrochemically purified. It is heated to at least 40 deg.C while an electrolyte is cooled to at least 25 deg.C. The cooled electrolyte is passed through a region which houses energised soluble electrodes.

The heated contaminated liq. is mixed with the ascending flow of cooled electrolyte contg. prods. of dissolution from the electrodes. Foam and sludge are formed and these are sepd. in a settling chamber to yield a purified liq.

The method and appts. are suitable for purifying liqs. contaminated with polymers and petroleum prods. such as waste water contg. oils and fats. The power consumption of the appts. is reduced compared with conventional apparatuses. (5pp)

CHIY D15 37402 X/20 = US 4295-987
Continuous countercurrent fluidised bed - with inverted cone shaped pipes below the trays for periodically transferring solid

CHIYODA KAKO KENSET 26.10.74-JP-123028
J04 (20.10.81) *NL7512-429 + B01d-15/02
23.05.80 as 02049 + 24.10.75, 19.10.78-US-625777, 952639) (1376DH)
Liquids and solids are contacted in a fluidised bed appts which includes trays having inverted frustum-shaped depressions with a narrow opening at each of their bases.

The trays are in a vertical tower and particulate is fed to each tray. The narrow openings in adjacent trays are vertically askew w.r.t. each other.

Agglomeration is prevented without high power consumption. (9pp)

USSI ★ D15 83376 D/45 ★ US 4295-971
Clarification of slimes - by treatment with stabilised aq. base-magnetic colloid, then dilution

US SEC OF INTERIOR 14.08.80-US-177975
(20.10.81) C02b-09/02
14.08.80 as 177975 (478RH)

Slimes (Fe oxide, oxidised taconite or kaolin slimes, or scrubber H₂O from Fe-making furnaces) are clarified as follows: (a) slime is treated with a stabilised aq. base magnetic colloid consisting of (1) colloidal magnetic particles (I), and (ii) one or more surfactants (II) to bridge (I) electrostatically to the slime particles and to stabilise (I); (b) the magnetic colloid becomes unstable and (I) irreversibly flocculate when the colloid is sufficiently diluted; and (c) the clarified slime is sepd. from the aggregated (I)-slime particle flocules.

In step (a), slime is pref. treated with a 10-15C n-aliphatic amine (esp. dodecylamine) stabilised magnetic colloid (20-30% pref. ca 25% amine by wt. of (I)) in which (I) has particle size 50-100 angstroms. In step (b), colloid is diluted to magnetisation less than 1-3 gauss.

Rapid method allows the use of a much smaller settling tank, and provides for particle-to-particle titration (i.e. using smaller vols. of the magnetic reagent). (6pp)

NIAU- D15 82817 B/46 = US 4295-972
Treatment of waste water contg. (in)organic impurities - with alkali metal oxide then drying to granulate, useful e.g. as fertiliser and building material

NIHON AUTOM MACH MF 29.04.78-JP-051195 (28.04.78-JP-051916)

C04 L02 P35 (20.10.81) *DE2917-123 + C02f-11/14
07.05.80 as 147381 Div.ex 4226712 (+ 30.4.79-US- 035201) (964MR)

Water contg. organic waste is treated by first mixing 100 pts. wt. of the organic waste contg. 50-99.8 wt.% with 5-40 pts.wt. CaO to produce exothermic reaction mixt. The reaction mixt. is heated using the heat from the exothermic reaction to obtain a preliminary dried mixt. which is transferred to a kiln for further drying.

The mixt. is granulated by continuously agitating and heating to 100-300 deg.C. Malodorous exhaust gas produced by mixing the waste with the Ca is collected and channeled to a furnace where it is burned to produce odourless gas.

Method is used to treat industrial sludge and animal excrement. Converted prods. are used as fertilisers, cement materials or cement additives. (5pp)

FRAM ★ D15 83377 D/45 ★ US 4295-972
Sepn. of suspended solids from liq. - using mixing and sepg. chambers sepd. by perforated plate with inclined passages to cancel horizontal flow components

FRAM IND FILTER COR 28.04.80-US-144721 (16.03.79-US-021276)

J01 (20.10.81) C02f-01/52
28.04.80 as 144721 Div.ex 4224157 (513BZ)

Process for sepg. solids from suspensions comprises mixing influent in an inner mixing compartment of a separator unit, the influent being transferred to an outer settling compartment from which clarified liquids and settled suspensions are withdrawn. The mixing compartment is sepd. from the settling compartment with a hydrodynamic changing means which minimises convective momentum of the influent during transfer from the mixing to the settling compartment, which prevents agglomerated solids from breaking up and allows them to settle without interference from the influent. The momentum of the influent flowing through the mixing and settling compartments is continuously decreased to cause solids of increasingly smaller size to settle. Minimisation of the momentum is achieved by directing the influent through perforations in the plate, the perforations being oriented to eliminate or minimise tangential components of velocity and minimise axial components of the velocity so as to minimise the momentum in the settling compartment and to maximise the rate of settling.

Parent specification US 4224157 (73307 C/41) claims an appts for carrying out the process, the appts. also being disclosed in the present specification. (7pp)

RICT D15 71596 C/41 = US 4296-073
Heating or cooling plant for wet solids partic. pulpy materials comprises truncated cone and interconnected prismatic elements forming saw-toothed line giving intensive continuous treatment

RICHTER GEDEON VEGY 21.03.79-HU-RI0702
J08 + P41 Q76 (20.10.81) *BE-882-375 B01d-01/14 B01d-09/01 B01d-11

19.03.80 as 131825 (6AT)
Appts. for heat-treatment of wet solids, esp. pulpy organic materials such as slaughterhouse waste, soft fruits etc. comprises a horizontally-rotating drum of polygonal cross section, and with walls flaring outwardly to an end wall with an offset outlet leading to an elongated feed duct which rotates with the drum and is of zigzag form with four successive angularly disposed sections.

Pref. the sections are surrounded by heating or cooling jackets or the duct is immersed in a temp-controlled tank. (12pp)

REGA/ ★ D15 83510 D/45 ★ US 4296-322
High purity water purity appts. - using electromagnetic radiation in 185 nanometre wavelength range

REGAN M D 11.02.80-US-120725
E36 J04 S03 (20.10.81) G01n-21
11.02.80 as 120725 (295NS)

Organic material is photochemically removed from water using an appts. which comprises a container for holding a batch of the water. Electromagnetic radiation in the 185 nanometre wavelength range is produced using a radiation source positioned in the container. This effects a gentle steady state circulation of the water in the batch about the source. The container is vented to remove gases produced by the radiation. Pref. the radiation source consists of a mercury vapour lamp positioned in a quartz glass tube fixed adjacent one end of the container.

The appts. produces high purity water suitable for delicate laboratory analysis work, partic. for use with chromatographic techniques. The appts. is relatively cheap to construct, inexpensive to operate and is hand portable. (5pp)

KEAN/ ★ D15 83538 D/45 ★ WP 8103-02
Aerobic fermentation of solid refuse and sewage sludge - b moulding into block shape contg. groove to enhance air circulation

KEANE M A 28.08.80-US-182045 (17.04.80-US-140972)
H09 (29.10.81) C101-05/46

18.04.81 as 000504 (295BZ) (E) US-620186 US--44342 US3298821 US 15417 US4043764 US4203376 N(AT AU BR DK FI HU JP KP MC M MW NO RO SU) E(CF CG CH CM DE FR GA GB LU NL SE S TD TG)

A compactible mixture is formed having a given moisture content from a source of solid refuse and microbial refuse. The mixture is moulded into a block shape having at least one plane face with an open channel formed across that face. The ratio of the cross-sectional area of the block to that of the channel is 8:31. The blocks are stacked and permitted to undergo aerobic fermentation and thermal rotting to reduce the moisture content.

The method is particularly used to form blocks of fuel from a mixture of solid refuse and sewage sludge. (14pp)

D16: FERMENTATION INDUSTRY

KUHT/ ★ D16 D/45 ★ AT 8001-920
Beer making installation
 KUHTREIBER F 09.04.80-AT-001929
 (15.10.81) C12c-11/04

HOFF ★ D16 81681 D/45 ★ BE -888-534
Enzyme immunoassay by sandwich method - with one-stage incubation of analyte and reagents
 HOFFMANN-LA ROCHE SA 04.08.80-CH-005898 (25.04.80-CH-003209)

B04 S03 (S05) (23.10.81) C12q-01 G01n-33/54
 23.04.81 as 888534 (367HM)

Qualitative or quantitative immunoassay is carried out by (a) incubating the analyte with an enzyme-labelled immunoreagent and a solid-phase immunoreagent, (b) separating the solid and liq. phases, and (c) measuring the amt. of label in the solid or liq. phase. In step (a), the analyte and reagents are incubated all together right from the start in a single operation.

The method is applicable to antigens having at least 2 epitopic sites recognisable by 2 different antibodies, esp. carcinoembryonic antigen (CEA) or human chorionic gonadotropin (HCG). One-stage incubation greatly simplifies the assay procedure while still giving results comparable to those obtd. by conventional radioimmunoassay. (18pp)

NAUM/ ★ D16 81724 D/45 ★ DD -150-076
Mould-release emulsions for concrete - contg. bio:lipid extract from fermentation of hydrocarbon(s)
 NAUMANN B 08.04.80-DD-220264
 H08 L02 P64 (12.08.81) B28b-07/38 C10m-03/40
 08.04.80 as 220264 (1492BZ)

Mould-releasing emulsions for use in casting concrete are made by stirring and emulsifying: (i) 2-9 pts.wt. of biolipid extract obtd. from the microbiological fermentation of hydrocarbons, with (ii) 1-8 pts.wt. of water, (iii) 0.1-2 pts. wt. of a surface active agent as an emulsifier or wetting agent, and opt. (iv) 0.5-6 pts. petroleum oil. (iii) may be oxyethylated phenols, fatty acids or fatty alcohols. In place of (i) there may be used the phosphatide- or fatty acid-fractions obtainable from it. Alternatively, a concd. emulsion may be prepd., for dilution with water before use, according to the requirements.

The emulsions are stable on long storage over a wide range of temps. They have potentially a high viscosity, adjustable by dilution. This is pref. to the emulsions currently available, which have low viscosity and hence flow excessively under gravity down the elements of the mould, disfiguring the final casting. The emulsions are harmless to the skin and prophylactic: in this, they are much pref. to the available emulsions. (9pp)

MUKE/ ★ D16 81725 D/45 ★ DD -150-078
Reducing turbidity-forming materials from drinks - by passing over spherical active Gp.-contg. styrene and/or acrylic acid di:vinylbenzene copolymer
 MUKE O 07.04.80-DD-220222
 A97 (12.08.81) C12h-01/02
 07.04.80 as 220222 (200MR)

Turbidity-forming materials, are removed from drinks, e.g. beer, (wort and after-mash), wine and must, by passing the opt. pre-filtered drink over a stationary phase of spherical styrene- and/or acrylic acid-divinylbenzene copolymers having special active gps. The spheres pref. having a gel and/or channel structure and size 0.3-2 mm, are present in one or more column aggregates in which the stationary phase can be regenerated for re-use.

The polymers are easily regenerated in situ. Drink colloidal stability is increased economically by a non-polluting process. The spherical polymers can simultaneously be used to reduce heavy metal ion concn., lighten the colour of the drink and control pH.

The active gp. react with the turbidity-causing contents and are esp. gps. capable of H bridge bonding, ion exchanger processes chemi-sorption and chelation. The polymer spheres can be regenerated with acids, esp. inorganic acids, bases, esp. NaOH soln., or neutral agents. The aggregates can consist of ion exchanger columns, water-treatment plant components of glass or other material resistant to chemicals or of opt. modified filtration devices. Several aggregates can be worked in parallel or consecutively. (15pp)

NEUM/ ★ D16 81726 D/45 ★ DD -150-079
High energy-contg. gas prodn. - by chemical reaction inside garbage heaps and extrn. through inserted pipes

NEUMANN G 02.04.80-DD-220144

E17 (12.08.81) C07c-09/04 C12p-07/02
 02.04.80 as 220144 (200BZ)

In high energy-contg. gas prodn., the gas formed by chemical reactions inside garbage-deposits is extd. by inserting bore-cylinders into the garbage heaps. The length of the pipes introduced into the drill-holes must not exceed garbage-heap thickness. The front-sides and walls of the introduced pipes are provided with openings, allowing the escape of the gas under pressure. The gas can be used directly, or in compressed or liquefied form, and can be further treated to produce specific gas mixt. compsns. or pure gas components.

The gases can be used for heating, combustion, lighting and propulsion and as raw materials for the prepn. of chemicals, e.g. plastics, lubricants and solvents. (4pp)

RETT/ ★ D16 81763 D/45 ★ DE 3015-164
Compost bin with bottom extrn. - through grating of horizontal tubes guided in double ring

RETTIG R 19.04.80-DE-015164

(29.10.81) C05f-09/02
 19.04.80 as 015164 (39RH)

A compost bin with bottom extrn. of mature compost holds the domestic refuse and garden rubbish in a cylindrical shell, open at both ends. It is supported on four legs, high enough to push a wheelbarrow under it. The open bottom is surrounded by a double ring, leading an axial gap, wide enough to push through a number of freely movable horizontal tubes. The first layer can be stopped from falling through the grate formed by the tubes by a layer of newspapers.

This is a simple way of extracting mature compost from the bottom. The lateral shifting of two tubes to discharge compost requires little manual effort. (15pp)

FARB ★ D16 81777 D/45 ★ DE 3015-439
Silica gel-contg. active carbon granulate - quickly disintegrating in aq. system and used for purifying liquids, and esp. fining alcoholic drinks

BAYER AG 22.04.80-DE-015439

E36 J01 (D13) (29.10.81) A23l-02/30 B01j-20/20 C01b-31/14 C12h-01/04 C13d-03/12
 22.04.80 as 015439 (200AS)

New active C granulate compsns. contain powdery active C, SiO₂ gel and opt. water and auxiliaries. Active C granulates which spontaneously disintegrate on wetting with water are prepd. by admixing powdery active C with SiO₂ sol., water and opt. auxiliaries, mixing, granulating and drying.

The SiO₂ sol. quantity added to the powdery active C is pref. such that the end prod. contains 1-20 (3-7) wt.% SiO₂, w.t.t. dry substance. The granules are dried esp. at 100-250 deg.C. Residual moisture can be 5-10%. The addn. of gelatins as auxiliaries, pref. to 0.1-5 wt.% concn. w.r.t. dry substance, improves granulate strength.

Compsns. are used for purifying liquids for treating, esp. fining, alcoholic drinks and fruit juices and for removing soluble protein cpds. from liqs. Dusting is prevented without impairing adsorption. (20pp)

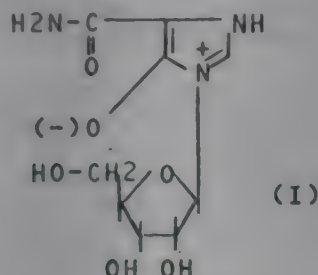
TAKE D16 13781 S/07 = DS 2039-990
Antibiotic from streptomycetes

TAKEDA CHEMICAL IND KK 17.06.70-JP-053006 (13.08.69-JP-064080)

B04 C03 (29.10.81) *BE-754-819 A61k-31/71 C12p-19/62 + C07g-11 C07h-17/08
 12.08.70 as 039990 (PW)

A series of antibiotics named as B5050A, B, C, E, and F of unknown structure and identified by their physical constants (including specific rotation and IR absorption) are isolated from fermentation baths of certain Streptomycetes esp. S.hygrosopicus. PS (-pp)

TOXN D16 79086 U/51 #DS 3336-916
Bredinine - antiviral agent and immunosuppressant
 TOYO JOZO KK (TOYO) 21.05.73-BE-790805 (23.05.73-DE-326916)
 B03 (29.10.81) *BE-799-805 C07h-19/04 C12p-19/38
 23.05.73 as 326916 (47RH)
 Anhydro-1 ribofuranosyl-4-carbamyl -5-hydroxyimidazolium hydroxide is new. Prepn. of cpd. (I) comprises propagation of *Eupenicillium brefeldianum* (NRRL 5734) in a suitable culture medium; followed by isolation of (I) from the liquid phase.
 The prod. is an immunosuppressive for organ transplants and has very little toxicity. PS (6pp)



ROHG D16 08258 B/05 = DS 2860-880
Stabilisation of immobilised protein(s) - by treating with cpd. contg. mercapto gps.
 ROHM GMBH 16.07.77-DE-732301
 A96 B04 (29.10.81) *DE2732-301 C07g-07 C12n-11/10
 06.07.78 as 860880 (Based on EPG000486) (047NS)
 Prepn. of stabilised proteins bonded to an inert carrier comprises reaction of protein in aq. soln. with a water-soluble carrier having functional groups which bond with the protein but free from SH gps. followed by reaction with a thiol (as stabiliser). In partic. carriers having oxirane functional gps. are used, and the bonded protein is then treated with H₂S or a thiol (Mr below 5000) which may have at least one other SH, OH or prim. or sec. amine function. Pref. carriers are based on polyacrylamides (esp. cross-linked with head diam. 0.005-1mm) or carbohydrates having oxirane functional gps. Pref. thiols are 2-8C alkanethiols or -polythiols. Pref. proteins are enzymes, esp. penicillinase, ribonuclease, amylase or catalase. At least 0.3 wt.% (based on moist prod.) of the free SH gps. are taken up by the carrier. (6pp)

DORI/ D16 40408 D/23 = DS 2947-297
Compost bin for domestic and garden refuse - has latticed rectangular cowl resting on height adjustable stays
 DORING E 23.11.79-DE-947297
 (29.10.81) *DE2947-297 C05f-09/02
 23.11.79 as 947297 (39NS)
 A compost bin for domestic refuse and garden rubbish consists of a slightly conical casing of rectangular cross-section which is composed of sheet metal straps and has the top opening frame designed as a slider for a lid. Bars can be pushed through the gaps between the vertical straps to ram down the rubbish. As the dump rises in height, the casing can be pulled up, resting on four Z-shaped bars at the corners which engage in a row of perforations. The bottom gap is closed by sheets of plastic foil.
 This ensures a good access of air and easy height adjustment. PS (5pp)

BOEF D16 14875 C/09 = DS 2960-533
Quantitative enzymatic determ. of adenosine di-phosphate - by phosphorylating to ATP, reacting obtd. substrate with NAD or NADH and a dehydrogenase, and measuring NADH or NADPH
 BOEHRINGER MANNHEIM GMBH 08.08.78-DE-834704
 B02 S03 (B04) (29.10.81) *DE2834-704 C12q-01/48
 03.07.79 as 960533 Based on EPG009076 (922AT)
 Quantitative, rapid enzymatic determination of adenosine diphosphate (ADP) in aqs. soln. by phosphorylation with a kinase in the presence of a phosphorylated substrate to form ATP and dephosphorylated substrate (I) is carried out by reacting (I) with NAD(P) in the presence of dehydrogenase and the NAD(P)H formed measured directly or is reacted with a tetrazolium salt in the presence of an electron carrier with the formation of a formazan and measuring the latter.

Only one incubation step is necessary and the reaction can be followed by simple photometry using visible light. (15pp)

CHIM- D16 40655 B/22 = EP G003-318
Terpene(s) steam-distilled from aromatic plants - for control of viral infections in medical and microorganism food cultures applications
 CHIMICASA GMBH 02.01.79-LU-080748 (27.01.78-LU-078955)
 B05 C03 (D13) (28.10.81) *BE-873-695 A23c-19/03 C12c-11 C12n-01/04
 19.01.79 as 100178 (067JB) (G) GB-560900 1.Jnl.Ref E(BE CH DE

Prod. of foods using microorganisms comprises inoculation of suitable food preps. with certain microorganisms and addn. of certain ethereal oils and nutrients, followed by adjustment of pH temp. and/or humidity. The ethereal oils are obtd. from spice plants or comprise black pepper oil, cassia oil, cardamom oil, linalyl acetate, cinnamaldehyde, saffrole, carvone and citral (0.001-1.0 g/kg foodstuff) and are used to prevent attack by phages or viruses.

Pref. part of the ethereal oil is added before inoculation of the food, and the rest is added at intervals during the propagation period. The ethereal oils may be mixed with a palatable carrier (1:10 to 1:1000), e.g. propyleneglycol; such additives are new.

The process is esp. applicable to the prodn. of milk products using lactic acid Streptococci; and for the attenuation of wort using yeast from *Saccharomyces cerevisiae*. (5pp)

MERI D16 61853 B/34 = EP G003-489
Heat labile enterotoxin isolated from *Escherichia coli* - useful in a vaccine for protecting against diarrhoea

MERCK & CO INC 30.01.78-US-873181

B04 C03 (28.10.81) *EP-3-692 A61k-39/02 C07g-07

23.01.79 as 400043 (974JB) (E) 1.Jnl.Ref E(BE CH DE FR GB NL SE)

Novel heat-labile enterotoxin vaccines for immunisation against *E. coli*-caused diarrhoea isolated from an *E. coli* culture filtrate, have a mol. wt. of 10000-13000 (by gel filtration or by sucrose density gradient); The contain 90% protein, 2% hexose and no keto deoxy octonolc acid; are a homogeneous single chain protein with N-terminal alanine (by the dansylation method and SDS acrylamide electrophoresis), and show no activity in the limulus lysate assay.

The vaccines are protective only against the heat labile (LT) enterotoxin. (10pp)

RESE D16 29021 D/16 = EP -38-37
Vaccine contg. ciliary protein from *Tetrahymena pyriformis* - for immunising fish against *Ichthyophthirius multifiliis* etc.

RESEARCH CORP 20.09.79-US-077269

B04 C03 (28.10.81) *WP8100-812 A61k-35/68

22.09.80 as 902005 Based on WP8100812 (1248AS) (E) US400926 5.Jnl.Ref E(DE FR GB)

Veterinary vaccine for immunising fish comprises a ciliary protein derived from *Tetrahymena pyriformis* cilia and an inert solvent. The vaccine immunises fish against *Ichthyophthirius multifiliis* and *Cryptocaryon irritans*, which are holotrichous ciliates ectoparasitic on the gill and hypodermis of fish.

These parasites cause severe epizootics in the culture of food fish and ornamental fish, esp. in high density ponds, and normal chemical treatments are ineffective in removing the encysted stage. (25pp)

NEVE/ D16 36323 D/30 = EP -38-39
Delignification of cellulosic materials - to give residues for acid hydrolysis to sugars for ethanol fermentation

NEVES A M 20.10.80-US-195326 (23.10.79-US-088196)

E17 (28.10.81) *WP8101-154 C12p-07/08

20.10.80 as 902322 Based on WP8101154 (1248BZ) (E) US321293 US4009075 US2053769 US2451156 US2862819 US3930043 US379964 US3234026 US3212932 US4094740 2.Jnl.Ref E(AT CH DE FR GB NL SE)

Conversion of cellulosic material (I) into fermentable sugars (II) is effected by taking a feedstock contg. (I) and contacting it with weak acid soln. to produce a soln. contg. hemicellulose. Undissolved (I) is sepd. from the soln. and contacted with conc. acid at 30-60 deg. F to give a second soln.

Solid waste is removed from the second soln. and then cellulose is pptd. from it. Finally both the hemicellulose and the ppt cellulose are hydrolysed with a second weak acid soln. to give (II).

(II) are used in the continuous fermentation prodn. of alcohol esp. for use as a liq. fuel. The feedstocks include corn residue and forestry, feedlot, crop, urban and industrial wastes, so that the alcohol is obtd. at reasonable cost in a min. time and in high yields. (63pp)

DFOR-★ D16 81868 D/45 = EP -36-3
Recovering enzymes from isolated blood cells - by simultaneous haemolysis and haemoglobin pptn. using aq. alcohol

DE FORENEDE BRYGGER 21.04.80-DK-001688

B04 (28.10.81) C12n-09/03

16.05.80 as 301616 (1251HM) (E) US3813289 GB1344377 US37631 3.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)

Enzymes are recovered by mixing (partly isolated blood cells with a 2-4C alkanol(esp. ethanol) to a final concn of 10-70 vol. When the cells are lysed and the haemoglobin denatured, water added at least up to double vol and the cell debris, haemoglobin and other contaminants removed. (15pp)

Specifically the enzymes recovered as Cu, Zn-superoxide dismutase (I), catalase (II) and carbonic anhydrase (III). Pref (I) and (II) are isolated by chromatography of the soln., of pH 4.7-5.5, on a cation exchange resin (A) of same polarity as (I), then eluting with buffer of pH 4.7-5.5 and ionic strength 0.01-1M. (I) is eluted at the lower pH and/or ionic strength.

Haemolysis and haemoglobin pptn are carried out in a single step without loss of enzyme activity. The yield of (I) about 60mg per l of packed cells, i.e. 60%. (16pp)

ASM ★ D16 81882 D/45 ★EP--38-457
Using compn. for mushroom cultivation - contg. foam-forming hydrophilic prepolymer resin, substrate, buffer and water

CASTLE & COOKE INC 18.04.80-US-141460

B07 P13 (28.10.81) A01g-01/04

1.04.81 as 102556 (478DH) (E) US4170842 E(CH DE FR GB LI NL)
Compan. for use as a casing layer in the cultivation of mushrooms consists of: a foam-forming, hydrophilic, synth., organic prepolymer resin (I); a casing substrate (II); a buffer (III); and 20 to give a slurry.

(I) is a polyisocyanate or polyurethane (US 3373009 or 3805532), ref. the reaction prod. of toluene diisocyanate with a polyester having unreacted OH gps. (II) is sphagnum peat, loam, soil, etc. ref. Canadian peat. (III) is pref. a lime, esp. dolomitic lime.

Sterile casing is not susceptible to attack by undesirable microorganisms, maintains a constant optimum pH for mushroom growth, and absorbs H₂O rapidly but releases it slowly (i.e. watering frequency is significantly reduced). In addn., its texture is not altered by watering, and it allows watering without sealing off the compost layer. (18pp)

EAST ★ D16 81901 D/45 ★EP--38-529
Compan. for neuraminic acid assay - contg. neuraminic acid aldolase, pyruvate oxidase and electron acceptor

EASTMAN KODAK CO 18.04.80-US-141748

B04 (28.10.81) C12q-01

15.04.81 as 102913 (367BZ) (E) US3901870 GB1122419 US4116777
Jnl. Ref E(DE FR GB IT)

Compan. for assay of neuraminic acids (esp. sialic acid) in aq. sgs. comprise a neuraminic acid aldolase (I), pyruvate oxidase (II) and an electron acceptor (III).

The compan. pref. contains at least 0.1 unit of (I), at least 0.005 unit of (II) and 0.02-10 mM of (III) in an aq. buffer soln. with a pH of 5-9. The compan. can also contain neuraminidase. (I) is pref. N-acetyl neuraminic acid aldolase (Ia) and (III) is pref. 2,6-dichloroindophenol (IIIa). Other suitable electron acceptors include O₂, methylene blue, K₃Fe(CN)₆ and neotetrazolium.

The compan. can opt. be used in the form of a dry test element, pref. with a 1st reagent layer contg. (II) and (III) and a 2nd reagent layer contg. (I).

The assay can be applied to serum for diagnosis of various pathological states (e.g. cancer) or to saliva for detecting ovulation. The assay is highly specific, can measure both free and bound neuraminic acids, can be employed at low temps., and avoids use of unstable reagents (e.g. NADH). (18pp)

SHIO ★ D16 81902 D/45 ★EP--38-534
Fermentative prodn. of thienamycin - using *Streptomyces penemifaciens*

SHIONOGI KK 17.04.80-JP-051907

B04 (28.10.81) C12p-17/18

15.04.81 as 102923 (367BZ) (E) No-Citns. E(CH DE FR GB IT LI NL 31c)

Prod. of thienamycin (I) is carried out by culturing a (I)-producing strain of *Streptomyces penemifaciens* sp. nov. (esp. F A-40702, ATCC 31599) or a mutant thereof in a medium under aerobic conditions and isolating (I) from the culture broth.

The (I)-producing strain is pref. cultured in a medium contg. C and N sources and mineral salts at 20-40 deg.C and pH 5.5-8.5.

(I) is an antibiotic with high activity against Gram-positive and -negative bacteria.

Unlike *S. cattleya* NRRL 8057 (JA 73191/1976), *S. penemifaciens* does not form by-products such as penicillin N and cephamycin C. (13pp)

NATR ★ D16 81951 D/45 ★EP--38-642
Monoclonal antibodies to hepatitis B surface antigen - useful for treating, diagnosing and preventing hepatitis B virus infections

NATIONAL RES DEV CORP 09.04.80-GB-011697

B04 S03 (28.10.81) A61k-39/42 C07g-07 C12n-05 C12n-07/02 C12p-01 G01n-33/54

03.04.81 as 301470 (1243AS) (E) GB2000186 4.Jnl. Ref E(BE CH DE FR GB IT LI NL SE)

Monoclonal antibodies to hepatitis B surface antigen which are secreted by hybridoma cell lines RF-HBs-1, -2 or -4, are new. Diagnosis of hepatitis B surface antigen in a biological samples comprises use of the monoclonal antibodies in immunofluorescent microscopy or immuno-electron microscopy

or in a solid-phase radiometric assay or in an enzyme-linked immunoassay.

Isolation of hepatitis B surface antigen from a biological sample is effected by contacting the sample with the antibodies in the solid phase so that the antigen binds to the antibodies. The antigen is sep'd. from the solid phase.

Kit comprises a first container having a plastics substrate coated with either RF-HBs-1 antibody and one or more other monoclonal antibodies that recognise HBs-Ag, or with RF-HBs-2 and -3 antibodies in it. A second container contains antibody secreted by hybridoma cell line RF-HBs-1 attached to a radioactive or enzyme label. Hybridoma cell lines RF-HBs-1, -2 and -3 are new.

The monoclonal antibodies are useful as an antiviral agent effective against hepatitis B virus. They may also be used in the prevention and diagnosis of hepatitis B virus infections, and for the purification of hepatitis B surface antigen. The 3 antibodies have relative specificities making them esp. useful in the assays and the kit. (40pp)

GLAX ★ D16 81982 D/45 ★EP--38-706

Adding small volume nutrient to fermentation vessel - at high pressure via metering dispenser connected to nutrient reservoir

GLAXO GROUP LTD 22.04.80-GB-013254

(28.10.81) B01j-04/02 C12m-01/26

21.04.81 as 301748 (295RH) (E) DS1079850 US2877929 E(AT BE CH DE FR GB IT LI NL SE)

Nutrient liq. is held in a reservoir at atmos. pressure and is located above a fermentation vessel operated at super-atmos. pressure. A dispenser receives nutrient from the reservoir until an internal metering chamber is full. Valves are closed to isolate the chamber from the nutrient supply, and further valves are then opened to connect the metering chamber to the fermentation vessel so that nutrient drain into the vessel. Finally, the metering chamber is isolated from vessel but before it is refilled from the nutrient reservoir its excess pressure is vented via an escape chamber.

The dispenser adds a metered volume of nutrient to a fermentation vessel. (16pp)

RUSH ★ D16 81985 D/45 ★EP--38-719
Culture of cartilage cells in vitro - as source of anti-invasion factor

RUSH-PRESBYTERIAN 22.04.80-US-142731

B04 (28.10.81) C12n-05 C12p-21

22.04.81 as 301773 (367BZ) (E) No-Citns. E(AT BE CH DE FR GB IT LI LU NL SE)

Method of culturing mammalian chondrocytes to produce cartilage tissue comprises (a) selecting cartilage tissue from mammals providing at least 60% viable chondrocytes, (b) preparing shavings from the tissue, (c) digesting the shavings to remove the extracellular matrix, (d) plating the resulting denuded cartilage cells in sufficient density to provide at least a monolayer, so that the cells are in contact with one another, and (e) growing the cells in a medium to obtain a culture with an extracellular matrix.

The shavings are pref. obtained from calf articular cartilage. Step (c) is pref. effected by successive digestion in media contg. (i) 0.5-2% pronase, (ii) 0.1-1% collagenase, and (iii) 0.1-3% trypsin or hyaluronidase. The media pref. also contain bovine serum. The denuded cells are pref. plated and grown in roller bottles. The AIF can be extracted as described in US4042457.

The cartilage tissue is useful as a source of anti-invasion factor (AIF), which is a protein with antitumour activity. (14pp)

PURD ★ D16 81988 D/45 ★EP--38-723

Prepn. of ethanol from xylulose - by fermentation with yeast

PURDUE RESEARCH FOUNDATI 23.04.80-US-143146

E17 (28.10.81) C12p-07/06

22.04.81 as 301784 (478AT) (E) 3.Jnl. Ref E(AT BE CH DE FR GB IT LI LU NL SE)

EtOH is prepd. by fermenting xylulose (I) with a yeast.

(I) is pref. prepd. by isomerisation of xylose (II) by glucose isomerase or xylose isomerase (pref. effected simultaneously with the fermentation of (I)). (I) is fermented anaerobically at 5-45 pref. 24-35 deg./pH 3-9 pref. 4-6 using a yeast of genus *Candida*, *Torula*, *Schizosaccharomyces*, *Pichia*, or *Hansenula*, pref. *Saccharomyces*. Opt. the yeasts may be modified by DNA recombinant techniques, mutation, or protoplast infusion to include the ability to isomerise (II) to (I).

Inexpensive process is compatible with the conversion of 6C sugars, and affords EtOH from normally discarded hemicellulosic feedstocks (bagasse, etc.). (20pp)

FELL/ ★ D16 81996 D/45 ★EP --38-738
Detecting blood group antigens in histological samples - by reaction with monospecific antiserum labelled with fluorescent cpd.

FELLAC P 21.04.80-FR-008893

B04 S03 (S05) (28.10.81) G01n-33/80

09.04.81 as 400562 (1251) (F) 11Jnl.Ref E(BE CH DE GB IT LI LU NL SE)

Method for detecting the blood group antigens A,B,O or AB in a histological section comprises treating it with an antiserum monospecific for one of these antigens. The antibodies in this antiserum are labelled, directly or indirectly, with a fluorescent material (F), and the treated section is then washed and examined optically for the presence of (F).

If (F) is present this shows that the antibodies have reacted with the appropriate antigen in the sample. Labelling of the antibodies can be done before or after (e.g. using a labelled anti-immunoglobulin serum) treatment of the section with antiserum. Specified (F) are fluorescein and rhodamine, and their presence is detected under UV light.

Also now are the labelled monospecific antisera.

The antigens are determined easily and reliably without the problems associated with labelling antigens with red corpuscles. Detection of these antigens is useful for the prognostic evaluation of malignant tumours. (11pp)

EAST ★ D16 82004 D/45 ★EP --38-753
Lactate oxidase inhibition - with glyoxalic, oxalic or glycolic acid, suppresses interference from lactate oxidase in enzyme assays

EASTMAN KODAK CO 17.04.80-US-141026

B04 (28.10.81) C12n-09/04 C12q-01/26

17.04.81 as 400614 (367TM) (E) US4166763 US3956069 US4042335 US3992158 6.Jnl.Ref E(DE FR GB IT)

The activity of lactate oxidase enzymes capable of converting lactic acid or lactate to pyruvate and H₂O₂ in the presence of O₂ is inhibited by contact with an inhibitor (I) comprising glyoxalic, oxalic, or glycolic acid or their salts.

(I) are pref. added to enzymatic assay reagents contg. GPO and a peroxidase. The GPO is pref. derived from *Streptococcus faecium* and (I) is pref. oxalic acid, glycolic acid or their salts. The reagents can be formulated as liqs. or dry test systems.

(I) are esp. useful for suppressing interference from lactate oxidase in enzyme assays involving H₂O₂ formation, e.g. in the determin. of serum triglycerides or glycerol using L-alpha-glycerophosphate oxidase (GPO). (27pp)

DEDE/ ★ D16 82007 D/45 ★EP --38-759
Anaerobic fermentation plant - produces methane and agricultural fertiliser from controlled mixt. of dry and liq. organic substrates

DEDENON J M 21.04.80-FR-008855

(28.10.81) C12m-01

17.04.81 as 400622 (448RH) (F) FR-898669 FR-914808 FR1011722 BE-507640 E(AT BE CH DE GB IT LI LU NL SE)

An installation and a process for the prodn. of a fuel gas by anaerobic fermentation. The installation comprises a digester vessel for the fermentation of a very conc' substrate with a dry solids content above 16 percent. Solid waste materials for fermentation are taken through a chopping machine, sprayed with a liq. substrate having a dry solids content below 10 percent and mechanically distributed into the top of the digester vessel.

The liq. substrate is supplied to the spray point from a reception vessel equipped with a preheating coil. Within the digester vessel, the conc. substrate is held clear of the vessel wall by a lining basket which permits drainage of the substrate throughout the height of the vessel. Fermented residue is mechanically extracted at the base of the digester vessel. Liq. draining from the digester vessel is returned to the liq. substrate reception vessel.

Gas is pref. drawn off from the digester vessel at points throughout its height, as well as from the headspace of the liq. substrate reception vessel. The solid materials feeder pref. passes the chopped material through two, spaced hydraulic seals which isolate the interior of the digester vessel from th3 atmos.S The installation is very robust, continuously operating, has low energy requirements, and is viable for use on most farms. Method of feeding prevents formation of surface crust without resorting to a mechanised crust breaker. The complete process can be automatically controlled. (21pp)

INSP ★ D16 82010 D/45 ★EP --38-766
Transforming cells with hepatitis virus DNA - so they express surface antigen but not core antigen or entire Dane particles
INST PASTEUR(CNRS) 09.12.80-FR-026132 (22.04.80-FR-009041)

B04 (28.10.81) A61k-39/29 C12n-15 C12p-21/02

22.04.81 as 400634 (1251KB) (F) EP--13828 EP--20251 WP8100577 11Jnl.Ref E(BE CH DE GB IT LI LU NL SE)

Method for transforming (or determining the possibility of transforming) a cell culture, pref. eucaryotic, with DNA from hepatitis virus or its genome used a vector (esp. a plasmid) contg. an insertion sequence (IS). (IS) includes at least a part of the viral DNA coding for the immunogenic protein which induces in vivo prodn. of antibodies against the whole virus, as well as the viral promoter which normally controls transcription and translation partic. in a host infected by the virus.

Pref. (IS) consists of two entire hepatitis B virus (HBV) DNA fragments forming a 'tandem' sequence, esp. one fragment contains the S-gene sequence (coding for the polypeptide responsible for the immunological properties of HBS), and the other is long enough to include the S-gene promoter. Also new are (IS) themselves; vectors modified with them, and compsns. (A) contg. proteins with the characteristic immunogenic properties of HBs but completely free of Dane particles, HBc, all human serum components and pref. also of DNA-polymerase.

Compsns. (A) are useful as vaccines and laboratory reagents. They can be prepd. in purer form than is possible by known methods. (34pp)

ARNO/ ★ D16 82020 D/45 ★FR 2478-940
Anaerobic fermentation plant to produce fuel gas and fertiliser has continuous digester with mechanised feed and drainage for discharged material

ARNOUX G I 25.03.80-FR-006573

P11 (02.10.81) A01c-03/02 C02f-11/04 C12p-05/02

25.03.80 as 006573 (448BZ)

An installation for anaerobic fermentation of organic waste comprises a reception sump for raw waste, a mechanical feeder to transfer material from the sump to a gas-generating digester vessel. The digester vessel discharges fermented material to a separator where liq. is drained from material intended for use as organic fertiliser.

The mechanical feeder pref. comprises a screw conveyor, a paddle conveyor or a pump. Within the digester vessel fermenting material is pref. agitated by a rotor, by a recycling pump or by a recycling screen conveyor.

Fermenting material can be heated by electricity, by gas or by solar energy. The separator for draining the fermented material is pref. a screw conveyor with performed screen housing or a dewatering mesh band conveyor. Gas generated in the digester is pref. passed via a non-return valve to a gasometer. A fraction of the gas is recycled by a compressor for reinjection into the fermenting material.

Used for prodn. of a fuel gas and an inoffensive, reasonably dry fertiliser. The p plant operates continuously and without manual labour. It can be adapted for large scale operation and equipped with automatic controls. Suitable for farm or factory installation (16pp)

RESE ★ D16 82031 D/45 ★FR 2479-00
Brucellosis vaccine contg. killed *Brucella abortus* 45/20 cells with trehalose mono- or di-ester of mycolic acid e.g. nocardomycolic acid confers cell-mediated immunity

RESEARCH CORP 11.03.81-US-239507 (28.03.80-US-134767)

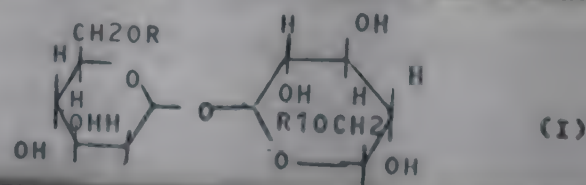
B04 C03 (02.10.81) A61k-39/10

26.03.81 as 006076 (395HM)

Vaccine against brucellosis contains 0.1-5 mg/ml of killed, whole *Brucella abortus* 45/20 cells and a trehalose mono- or di-ester, the esterifying agent being a 30-90C mycolic acid derivs. in a suitable immunological vehicle. The wt. ratio of cells to adjuvant is from 1-20 to 1. In preferred vaccines the adjuvant is P3 or a trehalose monoester with nocardomycolic acid (see US4101536).

The preferred esters are 6-mono and 6,6-diester of alpha-D-trehalose in which the mycolic acid esterifying radical has 30-60 C atoms. The esters may be obtained by cultivation of mycobacteria, corynebacteria and nocardia and have formul. (I) (where R, R1 independently are H or R2-CO- where R2 is a 30-90C mycolic acid residue, with the conditions that only one of R and R1 is H).

Brucellosis vaccine which confers cell-mediated immunity



(CMI) and does not affect serological tests, by leading to false positive results, due to circulating antibodies following vaccination. Activity tests are described. (12pp)

PHIP D16 02417 B/02 = GB 1601-657
Fermentation plant to reduce monocellular protein from methanol etc. - in closed circuit tube, using static mixing and simplified cooling

PHILLIPS PETROLEUM CO 29.03.77-US-782599
+ Q78 (04.11.81) *FR2385-797 C12b-01 + B01f-03/04 B01f-05/10 F28d-07/10

28.03.78 as 011995 (006MR)

Fermentation appts. for culture mediums, comprises one or more nozzles which spray medium into a tube of closed-loop form which provides an endless flow path. A pump which supplies the spray nozzles is fed by a portion of the culture medium from the tube, which flows to the pump inlet through a heat exchanger.

Further nozzles between the spray nozzles inject O₂ or O₂-rich gas, and are upstream of a phase separator for withdrawal of foamed culture medium and return of some or all of it to the tube. A mixing vane is between the nozzles and the inlet of the phase separator. (8pp)

MARI/ D16 30092 B/16 = GB 1601-689
Detection of bacteria in samples - using appts. measuring small changes in pH caused by bacterial growth

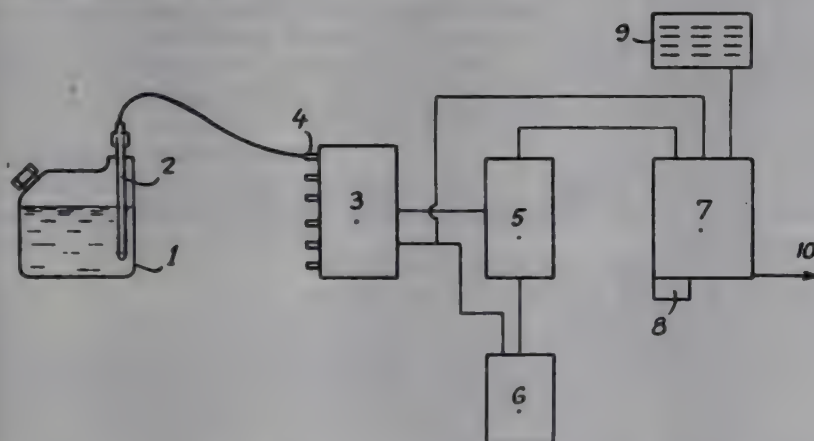
MARIEL C 15.07.77-GB-029864

B04 S03 S05 P31 (04.11.81) *FR2397-457 G01n-33/48

25.05.78 as ----- (1358TM)

Appts. for rapid diagnosis of bacteremia and determination of the antibiotic sensitivity of the bacteria involved includes bottles (1) each fitted with a sterilisable electrode (2) and for aseptic introduction of culture medium and blood. Each electrode is connected in an electronic switching system (3) connected to a pH meter (5), multichannel potentiometric recorder (6) and programmable computer (7) operating an alarm system (10).

An aliquot from the contents of any bottle where a significant pH change is registered is inoculated into tubes holding broth and various known concns. of antibiotic, with pH values in the tubes read at intervals and no significant pH change indicating and efficient concn. (7pp)



BECI D16 78151 A/43 = GB 1601-771
Kinetic determ. of glucose - with reagent comprising buffer at pH 7.9 to 9, pyridine coenzyme and glucose dehydrogenase

BECKMAN INSTRUMENTS INC 28.04.77-US-791825

B04 J04 S03 (S05) (04.11.81) *US4120-755 + C12q-01/32

22.03.78 as 011318 (424TM)

Kinetic assay for glucose comprises reacting a glucose-contg. sample with a reagent consisting of a pyridine coenzyme, glucose dehydrogenase and a buffer to give a pH of 7.9-9, whereby the glucose and pyridine coenzyme react in the presence of glucose dehydrogenase to form a reduced pyridine coenzyme, and monitoring the rate of the reaction.

Pref. the assay is conducted at a pH of 8-8.5, esp. 8.2. Pref. the buffer is triethanolamine, Na 5:5-diethylbarbiturate HCl, tris (hydroxymethyl) aminomethane, diethanolamine or phosphate.

The assay is useful for measuring the glucose content of e.g. biological fluids such as blood, serum and urine. The range of linearity is extended from the prior art limit of 300-500 mg/dl to 1200 mg/dl (at a sample to reagent ratio of 1:41). (7pp)

INMR D16 00267 B/01 = GB 1601-870
Bacterial esp. Bordetella pertussis endotoxin fractionation - to give fractions with non-specific immunological adjuvant activity

INST MERIEUX 31.05.77-FR-016473

B04 (04.11.81) *DE2823-750 A61k-35/74

30.05.78 as 024288 (945PW)

Fractions of a bacterial endotoxin are sepd. by subjecting opt. purified endotoxin to mild hydrolysis with an organic acid at pH

2-4. The supernatant is sepd. from the deposited material and the latter is lyophilised.

Pref. the endotoxin is Bordetella pertussis endotoxin; the organic acid is trifluoroacetic acid; and hydrolysis is carried out at 40-60 deg.C for 50-150 hrs.

Lipid fractions can be detoxicated while retaining or enhancing certain biological properties of the endotoxin, esp. its adjuvant power. Prods. useful for reinforcing antibacterial and antiviral infections and for antitumoural treatment can be obtd. (7pp)

ELIL D16 01894 B/02 = GB 1602-073
Mfr. of Streptomyces protoplast which regenerates viable cells - by forming protoplast during transition phase of growth of organism

ELI LILLY & CO 01.07.77-US-812084

B04 (04.11.81) *BE-868-472 C12k-01/02 + C07g-07

23.05.78 as 021348 (982TM)

Streptomyces protoplasts which can efficiently regenerate viable cells are obtd. by growing the Streptomyces culture to the transition phase between the exponential and stationary phases and forming protoplasts.

Pref. the culture is grown on a hypertonic nutrient medium and the growing is carried out in the presence of a non-inhibitory concn. of glycine. The streptomyces culture is treated with a lysozyme.

Specific cultures are Streptomyces fradiae griseofuscus, aureofaciens, bikiniensis, lipmanii, candidus, tenebrivius, erythraeus, clavuligerus, coelicolor, griseus, ambofaciens, albogriseolus, albus, etc. (8pp)

ELIL D16 01895 B/02 = GB 1602-074
Genetic exchange in Streptomyces and Nocardia - using protoplast fusion technique, esp. to improve antibiotic prodn.

ELI LILLY & CO 01.07.77-US-812097

A97 B04 (04.11.81) *BE-868-473 + C12n-15

23.05.78 as 021350 (982TM)

Genetic exchange within the genera Streptomyces and Nocardia is facilitated by (a) forming and stabilising protoplasts by growing cells under conditions that sensitise them to lysozyme and treating the cells with lysozyme so as to remove the cell walls; (b) mixing the parenteral protoplasts to achieve fusion; and (c) regenerating cells from the fused protoplasts.

Pref. protoplasts are formed during the transitional growth phase by growing cells on a hypertonic nutrient medium in the presence of a non-inhibiting concn. of glycine, adding lysozyme and incubating at 30-37 deg.C.

Protoplast fusion is enhanced by treating the protoplasts with polyethylene glycol. (12pp)

KOYA/★ D16 82257 D/45 ★J5 6120-694
Antitumour, antimicrobial neocartinosatin Ma - obtd. by treating neocartinosatin antagonist with NCS-C substance

KOYAMA Y 27.02.80-JP-023865

B04 (22.09.81) C07g-11 C12p-21

27.02.80 as 023865 (69KB)

Neocartinosatin Ma is produced by treating neocartinosatin-antagonist substance with NCS-C substance. Neocartinosatin-antagonist substance (Pat. Pub. 7356/72) and NCS-C substance (Pat. appl. 130181/79) are known.

(I) has antimicrobial properties against staphylococcus aureus FDA 209 P; carcina lutea PCI 1001; micrococcus albus; bacillus subtilis PCG 219; proteus vulgaris OX-19; escherichia coli NIHJ; candida albicans YU 1200; and antitumour activity. (7pp)

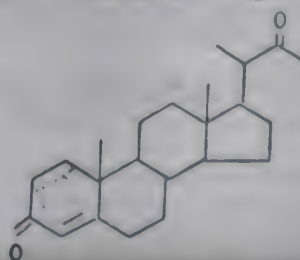
MITU ★ D16 82259 D/45 ★J5 6120-698
24-Nor:chola-1,4-dien-3,22-di:one or 24-nor:chol 4-en-3,22-di:one - prepd. by cultivating Mycobacterium microorganisms in sterol substrate

MITSUBISHI CHEM IND KK 28.02.80-JP-024307

B01 (22.09.81) A61k-31/57 C07j-09 C12p-33 C12r-01/32

28.02.80 as 024307 (69WB)

24-Norchola-1,4- dien-3,22-dione or 24-norchol-4-en-3, 22-dione of formula (I) is new. (I) may be produced by culturing mutant strain of Mycobacterium genus in sterol substrate. The sterol used is selected from steroid, its C-3 ester derivs., its C-3 ether deriv. or their oxidative intermediates. The microorganism may be Mycobacterium parafortuitum complex genus or Mycobacterium neoaurum genus, esp. Mycobacterium



(I)

paraformaldehyde complex MCI 1412 (FERM P-No. 5201) or 1414 (FERM P-No. 5262).

(I) is a very useful steroid intermediate. (8pp)

KIKK ★ D16 82362 D/45 ★ J5 6121-483
Improving taste and flavour of wine - by adding culture prod. of microbe of *Aspergillus* strain

KIKKOMAN CORP 25.02.80-JP-021714

(24.09.81) C12g-01

25.02.80 as 021714 (5PW)

The method comprises culturing the microbe of *Aspergillus* strain and adding the culture product or its protein fraction which shows hydroxy-cinnamic-tartaric acid-decomposing activity (DACT) and tannic acid-decomposing activity (DATA), to wine during its prepn.

A. Sojoe IAM2678, A. niger IAM3002, A. japonicus IFO4062, ATCC20236, etc. is pref. The cultured prod. is added so that DACT 15-40 U and DATA 100-300 U are combined in 1 litre of grape juice.

Excellent wine, free of astringency can be prepd. even from the press run grape juice contg. large amts. of polyphenol compounds. The yield of wine can be increased. (8pp)

TOYM ★ D16 82363 D/45 ★ J5 6121-484
Heat-stable glycerol kinase prepn. - by cultivating *Cellulomonas* or *Corynebacterium* microorganisms

TOYOBO KK 27.02.80-JP-024557

B04 (24.09.81) C12n-09/12 C12r-01/*

27.02.80 as 024557 (5WB)

Method involves culturing *Cellulomonas* or *Corynebacterium* microorganisms which can produce glycerolkinase (GK), in nutrient medium and recovering GK accumulated.

Prof. *Cellulomonas flavigena* IFO12680, *Corynebacterium xerosis* IFO12684, etc. are used. Cultivation is at 28-35 deg. C and pH 6.0-8.5 for 15-30 hours. To increase yield 10-50 g glycerol per litre of culture medium is added. GK obtd. catalyses the phosphorylation of glycerol in the presence of ATP to form glycerol-3-phosphoric acid and ADP.

KG obtd. is more stable to heat and pH than conventional KG and can be utilised for determining triglyceride in serum in combination with lipoprotein-lipase and glycerol-3-phosphoric acid-dehydrogenase or glycerol-3-phosphoric acid-oxidase. (5pp)

YAMA ★ D16 82364 D/45 ★ J5 6121-488
6-Amino-5-hydroxy-1,3-cyclohexadiene-1 carbaldehyde prepn. - useful as antibiotic, by cultivating *Streptomyces*

YAMANOUCI PHARM KK 25.02.80-JP-022437

B05 (24.09.81) A61k-35/74 C12p-07/24 C12r-01/46

(1.4R.) as 5.02.8 022437

Antibiotic 6-amino-5-hydroxy-1,3-cyclohexadiene-1-carbaldehyde (I) is prepd. by cultivating *Streptomyces* sp. G-706 in a medium and recovering I.

I being useful as a broad spectrum antibiotic substance is prepd. in high yield by cultivating the above strain (FERM-P 5359) in the presence of a metal chelating agent.

Cultivation is performed under aeration at about 18-35 deg. C, pref. about 30 deg. C in pH about 5-10, pref. about 5-7 in the presence of a chelating agent such as ethylenediamine tetraacetate. (6pp)

DAIL ★ D16 82365 D/45 ★ J5 6121-489
Long chain dicarboxylic acid prepn. - by forming fermented broth contg. the acid, heat treating, removing insol. material and crystallising out prod.

DAICEL CHEM IND LTD 28.02.80-JP-024606

E17 (24.09.81) C12p-07/40

28.02.80 as 024606 (5PW)

Long chain dicarboxylic acid (I) is prepd. by fermentation process. Method comprises (a) making (I) in the fermented broth in free acid form, (b) heat-treating the mixt. containing free acid-form (I) and microbial body in organic solvent, (c) sepg. insolubles such as microbial body, organic salt, etc. while the mixture is hot and (d) crystallising out (I) from the obtd. organic solvent soln.

The organic solvent is required (1) not to be completely miscible with water, (2) either to have higher b.pt. than water or to make azeotropic mixture with water and (3) to be able to dissolve LCDA under hot conditions but to be unable to dissolve LCDA at normal temp.. Examples of the organic solvent are aromatic hydrocarbons (e.g. xylene, toluene, cumene, etc.) and aromatic halo-hydrocarbon (e.g. chlorobenzene, dichlorobenzene, chloroxylene, etc.). Usually heat-treatment is at above 100 deg. C for 1-3 hours after dehydration of the mixt. is over.

The microbial body and other insolubles can be removed easily by filtration, etc. and (I) can be obtd. in high yield. (4pp)

SEKI ★ D16 82366 D/45 ★ J5 6121-490
Purifying coenzyme/Q - by adsorbing from (hydrous)alkanol extract on adsorbent contg. styrene di:vinyl benzene copolymer

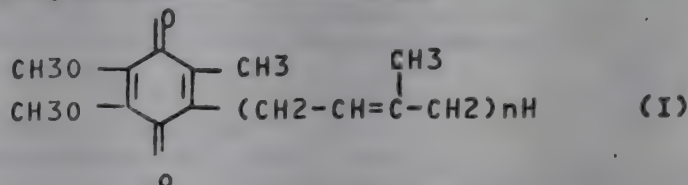
SEKISUI CHEMI IND KK 29.02.80-JP-025583

B05 (24.09.81) C12p-07/66

29.02.80 as 025583 (104AS)

Coenzyme Q of formula (I) (where n is integer 1-12) is purified by adsorbing (I) from lower alkanol or hydrous lower alkanol extract of (I) on porous adsorbent comprising mainly styrene- and divinylbenzene reticular copolymer of ave. pore dia. 300-1000 angstroms and eluting (I).

Disadvantages of known processes including expensive antioxidants such as pyrogallol are overcome. (I) showing excellent pharmacological or biological activity is industrially and effectively purified by simple and inexpensive process with high purity. Suitable lower alkanols include (m)ethanol, and (iso)propanol. Starting extract of (I) is available by extracting animal tissue, mycellia of microorganism or plant with lower alkanol or hydrous lower alkanol. (3pp)



ELED ★ D16 82367 D/45 ★ J5 6121-491
L-Threonine prepn. - by reacting glycine with acetaldehyde in the presence of *Arithrobacter* sp.

DENKI KAGAKU KOGYO CO 25.02.80-JP-021595

B05 E16 (24.09.81) C12p-13/08 C12r-01/06

25.02.80 as 021595 (104AT)

L-Threonine (I) is prepd. by reacting glycine with acetaldehyde in the presence of microorganism *Arithrobacter* DK-1084 or DK-1365 (FERM-P No. 5320 and 5321, respectively).

Reaction may be performed in the presence of one or more of manganese, iron, magnesium, and cobalt ions. Microorganism may be dipped in metal chelating agent e.g. EDTA etc. before using. Reaction mixt. is kept in pH 7-8 at 10-70 (pref. 10-40) deg. C. Disadvantages of prior art processes including low yields of (I) and the ratio of threo and allo forms being less than 1 are overcome by using a new strain. (I) is an essential amino acids and useful as medicinal, food additive or feed additive and is prepd. in higher yields than prior art processes. (10pp)

AJIN ★ D16 82368 D/45 ★ J5 6121-492
L-Phenylalanine prepn. - by aerobic culture or strain of *Brevibacterium* or *Corynebacterium* which requires glutamic acid for growth

AJINOMOTO KK 28.02.80-JP-024519

B05 E14 (24.09.81) C12p-13/22 C12r-01/13

28.02.80 as 024519 (5PW)

Method comprises aerobically culturing bacterial variety which is of strain *Brevibacterium* or *Corynebacterium*, which requires glutamic acid for its growth and can produce L-phenylalanine, in liquid culture medium and recovering L-phenylalanine accumulated. Suitable parent strains are *B. debaricatum* ATCC14020, *B. lactofermentum* ATCC13869, *B. roseum* ATCC13825, *B. saccharolyticum* ATCC14066, *C. acetoacidophilum* ATCC13870, *C. acetoglutamicum* ATCC15806, *C. glutamicum* ATCC13032, etc. used. The varieties can be obtd. by treating those parent strains through common variation-inducing means such as the irradiation of radioactive ray, the treatment with N-methyl-N'-nitroso-N-nitroguanidine, etc. The culture is practised at 20-40 deg. C at pH 5-8. (4pp)

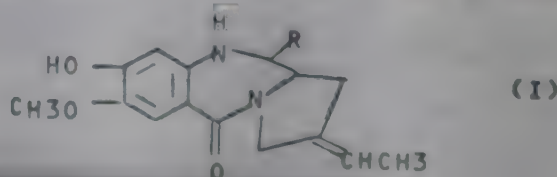
KYOW ★ D16 82370 D/45 ★ J5 6121-495
Analgesic, spasmolytic, sedative benzodiazepine deriv. prepn. - by cultivation of microorganism, esp. *Streptomyces sakayensis*

KYOWA HAKKO KOGYO KK 29.02.80-JP-024927

B02 (24.09.81) C12p-17/18 C12r-01/46

29.02.80 as 024927 (104PW)

Benzodiazepine derivs. of formula (I) (wherein R is H or OCH3) are prepd. by cultivating microorganism having ability to produce at least one of the cpds. in a medium. Specifically *Streptomyces sakayensis* DO-65 (FERM-P5366) or its mutant are cultivated. SEN-215 (I, R is H) is analgesic, sedative or spasmolytic agent. Tonemycin (I, R is OCH3) is useful



antibacterial or antitumoural agent. SEN-215 and tonemycin are found to be cultivated by *Streptomyces sakayensis*. Daily dosage of SEN-215 for intravenous or abdominal admin. is about 0.1-0.5 mg/kg to humans. (7pp)

TOKU ★ D16 82371 D/45 ★ J5 6121-496
Recovering polysaccharide from cultured prod. - by heat-treating cultured prod. under alkaline conditions, filtering and recovering polysaccharide from filtrate

TOKUYAMA SODA KK 26.02.80-JP-022226

(D17) (24.09.81) C12p-19/04 C12r-01/05

26.02.80 as 022226 (5AT)

Method comprises heat-treating the cultured prod. at 80-120 deg.C under alkaline condition of pH 10-13, filtering to remove insolubles and recovering polysaccharide from the filtrate.

Alcaligenes faecalis produces polysaccharides composed of D-glucose, D-galactose, L-fructose and D-glucuronic acid. But the cultured prod. is highly viscous and filtration is difficult by prior art methods. After filtering the polysaccharide can be recovered as usual by adding water soluble organic solvent such as methanol, ethanol, acetone etc. and sepg. formed ppt. by filtration etc.

By heat-treating the cultured prod. under alkaline condition most of microbial body is solubilised and clear soln. can be obtd. by filtering it to remove remaining insolubles. Filtration of viscous cultured prod. can be avoided and polysaccharide can be recovered inexpensively. (5pp)

NISB ★ D16 82372 D/45 ★ J5 6121-497
Polysaccharide prodn. by cultivating microorganism - of genus *Hyphomicrobium* in culture medium contg. methanol, nitrogen source, inorganic salt and other additives

JAPAN TOBACCO & SALT PUB 27.02.80-JP-022798

(D17) (24.09.81) C12p-19/04

27.02.80 as 022798 (22JB)

Microorganism (genus *Hyphomicrobium*) which can produce polysaccharides is cultivated in a culture medium contg. methanol as sole or main carbon source, and the resulting polysaccharides recovered. The polysaccharides are composed of D-glucose, D-mannose and 2-O-methyl-D-mannose, and are useful as food, cosmetic, and soil additives, binding agent, lubricating agent, etc. Microorganism is e.g. *Hyphomicrobium* sp JTS-811 (FERM No. 5088). Culture medium contains methanol, nitrogen source, ammonium salt, chloride, carbonate, phosphate, nitrate etc., inorganic salt such as Na phosphate, Ca chloride, Mn, sulphate, etc. and other conventional additives. The cultivation is aerobic at 28 to 30 deg.C, pH 6-7.5 for 96 to 144 hours. After cultivation, the broth is heated at 80-90 deg.C diluted with water and then the treated broth is subjected to conventional purificn. treatment. (6pp)

KYOW ★ D16 82537 D/45 ★ J5 6122-392
DC-11-A-2 cpd. useful as antitumoural agent - prepd. by culturing microbe of strain *Micromonospora* in nutrient medium

KYOWA HAKKO KOGYO KK 29.02.80-JP-024924

B04 (25.09.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/29

29.02.80 as 024924 (69PW)

DC-11-A-2 having the following physicochemical properties is new. (1) M.pt. 192-196 deg.C; (2) elementary analysis C, 60.8%; H 7.4%, N 2.3%; (3) given IR, UV, PMR and CMR spectra.

DC-11-A-2 may be produced by culturing antibiotic DC-11-A-2 producing microbe of strain *Micromonospora* in nutrient culture medium. Specifically Microbe strain (KY 11091) sepd. from soil at Sendai city in Miyagi prefecture is cultured in culture medium to yield novel antibiotic DC-11. (I) in the above culture mixt. was found (DC-11-A-2) different from the above DC-11 and DC-11-A-2 and the substance was found to have antitumour action. (18pp)

KYOW ★ D16 82538 D/45 ★ J5 6122-393
DC-11-A-3 substance obtd. from *Micromonospora*:bacteria - used as antibiotic and antitumour agent

KYOWA HAKKO KOGYO KK 29.02.80-JP-024925

B04 (25.09.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/29

29.02.80 as 024925 (69NS)

DC-11-A-3 having the following physicochemical properties is new. M.pt. 189-190 deg. C. Anal. C, 59.33%; H 7.01%; N 1.90%. IR, UV, PMR, CMR spectre all given. Soluble in (m)ethanol, butanol, acetone, ethyl acetate, and chloroform; difficult soluble in benzene and water; insoluble in petroleum ether and n-hexane. DC-11-A-3 may be produced by culturing antibiotic DC-11-A-3 producing microbe of *Micromonospora* genus in nutrient culture medium to accumulate DC-11-A-3 in cultured mixt. and taking out DC-11-A-3 from the cultured mixt. (11pp)

KYOW ★ D16 82539 D/45 ★ J5 6122-394
Cpd. dc-11-b useful as antitumoural agent - prepd. by culturing microbe of *Micromonospora* genus

KYOWA HAKKO KOGYO KK 29.02.80-JP-024926

B04 (25.09.81) A61k-35/74 C07g-11 C12p-01/06 C12r-01/29

29.02.80 as 024926 (69PW)

Cpd. DC-11-B having the following physicochemical properties is new. M.pt. 181-184 deg. C. Analysis H, 7.5%; C 61.0%; N 2.2%. (3) given IR, UV and PMR spectra.

DC-11B may be produced by culturing DC-11-B-producing microbe of *Micromonospora* genus in nutrient culture medium. Microbe strain sepd. from soil at Sendai city in Miyagi prefecture is cultured in culture medium and novel antibiotics DC-11, DC-11-A-2 and DC-11-A-3 etc. are yielded. It is now found that novel substance DC-11-B different from the above substances was yielded in the culture mixt. of the above microbe strain.

The substance also has antibacterial activity. (11pp)

OMRO ★ D16 82642 D/45 ★ J5 6122-947
Pyruvic acid determ. by enzyme electrode method - involves applying fixed enzyme film on porous high polymer film

OMRON TATEISI ELTRN KK 03.03.80-JP-027030

A89 B04 J04 (26.09.81) C12q-01/28 G01n-27/46 G01n-33/48

03.03.80 as 027030 (50GW)

The process comprises forming an enzyme electrode by sticking a fixed enzyme film (formed by fixing at least enzyme POP) onto porous high polymer film (e.g. polytetrafluoroethylene film), contacting the enzyme electrode with a soln. contg. pyruvic acid, and determining the decrement of oxygen or the increment of hydrogen peroxide caused by POP reaction by the enzyme electrode to obtain the concn. of pyruvic acid.

The method is useful for determining accurately pyruvic acid. Also various biochemical substances (e.g. glycerol, neutral lipid, creatine etc.) can be determined by assessing pyruvic acid formed by the conjugation of two or more kinds of enzymatic reactions.

In an example, fixed enzyme film is formed by fixing enzyme POP and at least one of coenzyme flavinadenine dinucleotide, coenzyme thiamine pyrophosphate and divalent magnesium ions. (6pp)

KAKY ★ D16 82787 D/45 ★ J5 6123-919
Agent for treating diabetes - comprises culture fraction having insulin secretion increasing activity, and produced from *Bordetella pertussis*

KAKEN YAKU KAKO KK 00.00.81-JP-024090

B04 (29.09.81) A61k-35/74 A61k-37/43

01.02.77 as 024090 (69PW)

Insulin secretion-increasing active fraction is obtd. by purifying *Bordetella pertussis* phase (I) Tohema strain, Novel protein substance YH715 is isolated and identified. Insulin secreting-increasing active fraction comprising protein-like substance promotes insulin secretion in mammals and has pharmacological activity that maintains and adjusts blood sugar value.

The active fraction may be obtd. by culturing microbe of known *Bordetella pertussis* phase (I) or (II) and taking out insulin secretion-increasing active component from culture mixt. Compsn. of properties of TH7512 are described in details. (14pp)

MITO D16 00658 C/01 = J8 1042-996
Biological treatment of kitchen waste, e.g. vegetable with anaerobe - by feeding via crusher to dissolving liquid, then depositing onto screen and aerating

MITSUBISHI HEAVY IND KK 10.05.78-JP-054415

+P43 (08.10.81) *J54147-171 +B09b-03 C02f-03/28

10.05.78 as 054415 (35DH)

When dissolving liq. is upwardly moved in a hopper, the kitchen refuse is introduced from an outlet through a crusher into a dissolving liq. tank. Then, heavy substances such as glass, metal stones and sand are sepd. and removed from the refuse to be deposited on a screen.

When the dissolving liq. is moved downstream, the kitchen refuse is deposited on the screen to form a uniform layer. Then, the air is heavily supplied to the permeable anaerobe to generate the biological reaction in the refuse mass to prevent hardening.

The sticky kitchen refuse may be smoothly transferred to permit easy dissolving and treating operation so as to acceleration the biological reaction in the hopper. (J54147171) (5pp)

ONOD/ ★ D16 82804 D/45 ★ J8 1043-229
Mutant *Bacillus subtilis* ON-1 - which can be used to make water-oats edible (J5 19.3.80)

ONODERA F 13.09.78-JP-111764

(D13) (09.10.81) C12n-01/20

13.09.78 as 111764 (22RH)

Bacillus subtilis ON-1, which is mutant, is sepd. from soil, and

cultivated in a culture medium. This mutant is deposited as FERM F-No. 4608. Properties of this mutant is given in the specification. With the use of the mutant, water-oat can be rendered edible. (J55039726) (4pp)

RIKA D16 42214 C/24 = J8 1043-230
Uricase prodn. by culturing uric acid assimilating *Streptomyces* fungi - in alkali medium using sugars and uric acid as sources
RIKAGAKU KENKYUSHO 27.10.78-JP-132399
(09.10.81) *J55058-093 C12n-09/06 C12r-01/46
27.10.78 as 132399 (69MR)

Prodn. of urato-oxidase comprises culturing uric acid-assimilating fungi of *Streptomyces* genus yielding uricase out of fungi body in alkaline culture medium contg. sugars and uric acid as carbon source and nitrogen source and sepg. and removing uricase having very high specificity to uric acid from the culture filtrate.

Uricase is present in liver and kidney of animals and the substance is an enzyme that catalyses oxidn. of uric acid. It has high substitute specificity. The optimum pH is approx. 9.0. Stable active temp. is less than 30 deg.C. (J55058093) (5pp)

GREC D16 81730 B/45 = J8 1043-231
Human lysozyme prepn. - by contacting human urine with silicon contg. absorbent eluting and anion exchanging
GREEN CROSS CORP 20.03.78-JP-031998
A96 B04 (09.10.81) *J54126-788 + C12n-09/36
20.03.78 as 031998 (108JB)

Prepn. of human lysozyme comprises contacting human urine with absorbent contg. silicone; eluting the absorbed product; contacting the obtd. impure soln. contg. urokinase and lysozyme, with basic anion exchanger to absorb the impurities; and recovering lysozyme from a concentrate contg. urokinase and lysozyme.

When contacting fresh urine with absorbent, the urine is pref. adjusted to pH 6-9. The amt. of absorbent used is 1-500g per litre urine, and the treatment time is 30 mins. to 5 hrs. Elution is carried out using e.g. alkaline soln. contg. 0.5-2 moles basic amino acid. The obtd. eluate contains conc. urokinase and lysozyme. The eluate is then dialysed and treated with anion exchanger. Urokinase and lysozyme are not adsorbed but colouring material and pyrogens are adsorbed on to the anion exchanger. Examples of such exchangers are QAE-Cephedex, DEAE-Cephadex. Contact with the exchanger is carried out at pH 7-11.

Highly pure lysozyme can then be obtd. efficiently. The lysozyme can be used for the treatment of diseases caused by bacteria and for removal of sputum which chokes the small bronchus in asthma. (J54126788) (6pp)

MORP D16 72513 B/40 = J8 1043-232
Sepn. and purificn. of Staphylokinase - by affinity chromatography using plasminogen as ligand for carrier
MORISHITA PHARM KK 09.02.78-JP-013717
A96 B04 (09.10.81) *J54107-589 + C12n-09/52 C12r-01/44
09.02.78 as 013717 (69TM)

Sepn. and purificn. of Staphylokinase comprises subjecting Staphylokinase to affinity chromatography using plasminogen as ligand of carrier.

Staphylokinase (SAK) has fibre solubilising activity and the substance is expected to be useful as pharmaceuticals. High purity of SAK standard sample may be produced by above process.

As insoluble support may be used e.g., agarose, Cephadex (RTM), cellulose, Cephadex (RTM), porous silica beads, polyacrylamide gel. (J54107589) (4pp)

GREC D16 49825 B/27 = J8 1043-233
Stabilising urokinase against heat during deactivation of virus - by heat-treating urokinase-contg. liq. in presence of gelatin
GREEN CROSS CORP 02.11.77-JP-131870
B04 (09.10.81) *J54064-688 + C12n-09/96
02.11.77 as 131870 (140AS)

Method for enhancing the heat stability of urokinase during the heat-treatment for deactivation of virus possibly present therein comprises effecting the heat-treatment of a urokinase-contg. liq. in the presence of gelatin.

Urokinase pref. has a specific activity of over 200 UI/mg., pref. over 1,000 IU/mg. The amt. of urokinase as protein in the liq. to be heat-treated is pref. 0.1-5(0.3-1.0)% w/v. The liq. to be heat-treated is pref. adjusted to a pH of 6-8 with a suitable buffer soln. Gelatin is added at a pref. final concn. of 0.1-5(0.3-3)% w/v, as protein. The heat-treatment is pref. conducted at 50-70 deg.C, pref. 55-65 deg.C, for 8-12 hrs.

There is little danger of incorporation of antigen substances into prepn. and heat stabilisation is effectively carried out. Since gelatin need not be removed after the heat-treatment by selecting

the added amt., incorporation into prepn. processes of urokinase is easy. (J54064688) (4pp)

JAGA D16 82548 C/19 = J8 1043-234
Fixed enzyme or fixed microbial body - is formed into globules, cylinders, rings or square pillars with their thickness satisfying specific equations

JGCCORP 19.09.78-JP-115245
A96 B04 (09.10.81) *J55042-529 C12n-11/04
19.09.78 as 115245 (5AS)

Fixed enzyme or fixed microbial body is obtd. by mixing an aq. suspension of enzyme or microbial body with photosetting resin uniformly and irradiating active ray on the mixt. It is formed in globules, cylinders, rings or square pillars so that their thickness satisfies the equation (I) pref. the equation (II).

T is thickness of the resin layer in mm; A is the activity of the dry fixed enzyme or the dry fixed microbial body expressed by activity-International unit/g-dry enzyme or dry microbial body.

The specific activity of the fixed prod. depends on the thickness of the photosetting resin layer. (J55042529) (8pp)

$$T_{mm} \leq e^{-(8.39 \times 10^3)A + 0.35} \text{ mm} + 0.1 \text{ mm} \quad (I)$$

$$0.1 \text{ mm} \leq T_{mm} \leq e^{-(8.39 \times 10^3)A + 0.35} \text{ mm} + 0.1 \text{ mm} \quad (II)$$

JAGA D16 33549 C/19 = J8 1043-235
Enzyme or microbe fixing method - by setting in photo-setting resin and irradiating with light

JGCCORP 19.09.78-JP-115246
A96 B04 (A14) (09.10.81) *J55042-530 C12n-11/04 + C12p-01
19.09.78 as 115246 (5MR)

Fixed enzyme or fixed microbial body are obtd. by homogeneously mixing the aq. suspension of enzyme or microbial body with photosetting resin and irradiating the mixt. Its thickness (mm) can satisfy equation (I)

T lies between 0.1 and $\exp(\exp(-8.39 \times 10^3)A + 0.35) / + 0.1$.

It is so formed in the sieve form that it has opening ratio 3-37% favourably 5-30%. A is the activity of the dry fixed enzyme of the dry fixed microbial body expressed by I, U./g.

The substrate soln. is passed through the equipment with space linear velocity greater than 0.01 cm/sec. The photosetting resin is pref. hydrophilic unsatd. cpd. which has average mol.wt. 300-80000 and acid value 40-200 and contains 2 photo-polymerisable ethylenic unsatd. gps. Enzymes such as urease, glucose-oxidase, glucoamylase, glucose, isomerase, catalase, invertase, lactase, D-aminoacid oxidase, gamma-galactosidase, aminoacylase, aspartase, etc. and the body of the microbes such as *Streptomyces phaeochromogenes*, *Lactobacillus bulgaricus*, *Saccharomycetes cerevisiae*, *Aerobacter aerogenes*, *Bacillus subtilis*, *Corynebacterium glutamicum*, *Trichoderma viride*, etc. can be fixed. Light of 2500-6000 angstroms wavelength is used. The sieve has pores of dia. 0.5-3.0 mm. (J55042530) (9pp)

YAMS D16 62123 B/34 = J8 1043-236
Citocarsin-E prodn. by *Aspergillus terreus* culture - active as cell protoplasm partition inhibitor

YAMASA SHOYU KK 22.12.77-JP-153630
B04 (09.10.81) *J54086-696 + C07g-17 C12p-01/02 C12r-01/66
22.12.77 as 153630 (69TM)

Prepn. of Citocarsin E comprises culturing *Aspergillus terreus* M-120-7 (FERM-P 4255) Citocarsin E is a physiologically active substance that inhibits partition of cell protoplasm and is an important reagent in the study of the relation of cell physiological activity and body membranes.

Mycological properties of *Aspergillus terreus* mould strain M-120-7 are described in details.

In an example water (1.8 l) was added into wheat bran (3 Kg) and resultant mixt. was stirred and subjected to sterilisation at 120 deg.C for 30 minutes. After cooling, pre-cultured *Aspergillus terreus* M-120-7 (FERM-P 4255) was inoculated and cultured at 28 deg.C for a week. (J54086696) (7pp)

DNIN D16 11599 C/07 = J8 1043-237
Fermentative prodn. of vitamin/B12 - by culturing fungi of *Nocardia* genus

DAINIPPON INK CHEM KK 20.02.78-JP-017582
B02 E12 (09.10.81) *J55000-002 C12p-10/42 + C12r-01/36
20.02.78 as 017582 (TM)

Prodn. of vitamin B12 comprises culturing fungi of *Nocardia* in culture medium contg. methanol as main carbon source and sepg. vitamin B12 from cultured mixt. Pref. fungi are *Nocardia methanophilus*. Pref. concn. of methanol in culture medium is less than 1 wt.% and concn. at the prim. stage of culture is adjusted to low level in comparison with conc. at the middle stage of culture.

protein metabolism, lipid metabolism and carbohydrate metabolism and is useful as remedy for malignant anaemia, food additive and in pharmaceuticals. (J55000002) (5pp)

TATL D16 40388 A/23 = J8 1043-241
Exo:cellular polysaccharide prep'd. by fermentation - using specified *Pseudomonas* microorganism; stabilisers, emulsifiers, thickeners in food, paper and textile industry

TATE & LYLE LTD 25.01.77-GB-002992

F09 G02 (D13 D17) (12.10.81) *BE-863-289 A231-01/04 C12c-05/02 C12r-01/38 + A23g-09/02 C08b-37 C12p-19/04

24.01.78 as 006639 (597JB)

Process for preparing an exocellular polysaccharide comprises cultivating *Pseudomonas* sp. NCIB 11264 (ATCC 31260).

Polysaccharides are formed from a repeating unit contg. 7 gluco-D units comprising 1 glucose unit subst'd. in the 6-posn., 2 glucose units subst'd. in posn. 4, 2 glucose units subst'd. in posn. 3, and 2 glucose units subst'd. in positions 4 and 6; 1 galacto-D unit comprising galactose subst'd. in position 3; 1 acetate and 1 pyruvate unit; the units contain a branch point on the 4,6-disubst'd. glucose and a lateral chain terminating in a 4,6-O-(1-carboxyethylidene) glucose-D unit. The polysaccharide has an optical rotation (x)22 of -15 deg. (C0.68H2O).

The polysaccharides have remarkable pseudoplastic flow properties and shearing fluidisation properties compared with xanthanes and alginates. (J53094094) (5pp)

SEIS ★ D16 82812 D/45 ★ J8 1043-352
Dialyser with membrane - sepg. enzyme soln. from base (J5 5.08.80)

SEISAN KAIHATSU KAGAKU 26.01.79-JP-008457

(12.10.81) C12m-01/40

26.01.79 as 008457 (22NS)

In plain membrane type dialyser, one room is for enzyme soln. and another room, sepd. from the first room by the membrane, is for basic substance. (J55102388) (6pp)

NODA D16 48883 C/28 = J8 1043-353

Proline acylase enzyme mfr. - by culturing *Pseudomonas* strain

NODA INST SCI RES 24.11.78-JP-144332

B04 (12.10.81) *J55071-491 C12n-09/78 C12r-01/38

24.11.78 as 144332 (69BZ)

Process comprises culturing proline acylase-producing bacteria strain of *Pseudomonas* in culture medium and removing proline acylase from culture mixt. Prod. is an enzyme which acts as catalyst for reaction where N-acyl-L-proline is decomposed to yield L-proline and proline is used in a process where N-acyl-DL-proline is used as substitute.

The racemic isomer is hydrolysed assymmetrically into N-acy D-proline and L-proline and optical-active L-proline is produced effectively. L-proline may be used as material for prodn. of pharmaceuticals or reagents. (J55071491) (9pp)

SEIS D16 11626 C/07 = J8 1043-354
Fixing mycelium into collagen filaments - involves extruding mixt. into salt soln. or organic solvent and crosslinking prod. by irradiation

SEISAN KAIHATSU KAGAKU 00.00.79-JP-050709 (07.06.75-JP-069004)

A96 B04 (12.10.81) *J55000-093 C12n-11/04 + C12r-01/85

07.06.75 as 050709 (42TM)

A method for fixing mycelium (I) into a collagen, comprises (1) mixing water-soluble collagen (II) soln. and a suspension of microorganisms (I), which does not decompose collagen; (2) extruding the mixt. as filament from a nozzle into a salt (III) soln. or organic solvent (IV), to solidify the mixt. and (3) hardening the solidified filaments with cross-linking agent (V) having aldehyde radical and/or by irradiation of UV and/or gamma rays.

The amount of (II) should be 500-1000 pts.wt. per 100 pts.wt. of (I) and the concn. of (I) in the mixt. of (I) and (II) should be adjusted to about 4%. The pH of the soln. must be adjusted to a value apart from isoelectric point of (II). Example of (III) and (IV) are ammonium sulphate, Na sulphate, acetone and (m)ethanol. (V) is e.g. dialdehyde starch or glutal aldehyde are listed. (J55000093) (5pp)

SEIS D16 47345 C/27 = J8 1043-355
Fixing of enzymes - by carrying in gel or porous substance prep'd. from citrus fruit

SEISAN KAIHATSU KAGAKU 14.11.78-JP-140804

B04 (12.10.81) *J55068-291 C12n-11/10

14.11.78 as 140804 (5DH)

The method comprises carrying enzyme in gel or porous substance which is prep'd. by (a) treating citrus fruit at pH 1-8, (b) adjusting pH to 10.5-12.5, with alkali for dissolving inner film and/or middle skin, (c) adding water-miscible organic solvent ppte. alkali metal pectinate, (d) gelling the ppte. and opt. (e)

dehydration-drying to moisture content ca. 10% for making porous substance. Enzymes or the microbes including enzyme can be fixed under moderate conditions only. The fixed enzyme can keep its enzyme activity for long period.

The gelatin of alkali metal pectinate can be practised by dissolved it in water to 1-20% soln., and spraying the aq. soln. of polyvalent metal salt on it. (J55068291) (9pp)

TAKG D16 87204 C/49 = J8 1043-356
Immobilisation of enzyme or mycelium - using as substrate neutralised basic aluminium salt

TAKI KAGAKU KK 09.04.79-JP-043493

(12.10.81) *J55135-592 C12n-11/14

09.04.79 as 043493 (42TM)

Enzyme (I) or mycelium (II) is fixed on substrate formed by neutralisation of basic aluminium salt (III). As (III) is easily available in the market, (I) or (II) is fixed inexpensively according to the present method.

A cpd. represented by the formula: $\text{Alm}(\text{OH})_n\text{X}_{3m-n}/p$ (X = anion; p = valence of X; m and n are exponential factor; 3 m greater than n) is used as (III).

Typical X are Cl, NO₃, SO₄, etc. Alkalinity, $(n/3m \times 100)$ is usually 30-85%. Typical (III) are basic aluminium chloride, basic aluminium nitrate, basic aluminium sulphate, etc. A part of Al in the formula may be subst'd. by Fe. For the immobilisation of (I) or (II), a soln. contg. (III), and (I) or (II) is neutralised, or (I) or (II) is mixed with the prod. formed by neutralisation of (III). After formation of the gelatinised prod. contg. (I) or (II), it is sepd. from the soln. and vacuum-dried. (III) should be neutralised until pH of the soln. reaches 5-8. (J55135592) (3pp)

MATU D16 54522 C/31 = J8 1043-358
Quantitative or qualitative determ. of amino acid - involves converting one optically-active isomer to another using amino acid-racemase and oxidn.

MATSUSHITA ELEC IND KK 14.12.78-JP-155633

B05 (12.10.81) *J55081-595 C12n-11/18 C12q-01/26 G01n-27/40 14.12.78 as 155633 (5BZ)

The method for analysing, amino acids quantitatively or qualitatively involves converting L-(or D-) amino acid to D-(or L-) amino acid with amino acid-racemase; oxidising the converted D-(or L-) amino acid with D-(or L-) amino-oxidase; and measuring the change during oxidn. By this method specific amino acid in the substance contg. various amino acids can be selectively analysed.

As amino acid-racemase alanine-racemase, methionine-racemase, glutamate-racemase, proline-racemase, lysine-racemase, threonine-racemase, etc. can be used. Amino acid-racemase and D-(or L-) amino acid-oxidase are pref. used in the form of fixed enzyme. For the object the change during oxidn. is measured. The decrease in oxygen concn. the increase in hydrogen peroxide concn., the decrease in redox cpd. (oxidised form) concn. or the increase in redox cpd. (reduced form) concn. can be used as the indicator, and they can be easily measured electrically or colourimetrically. (J55081595) (5pp)

FUJC D16 66304 W/40 = J8 1043-718
Basic antibiotic purification - by adsorption on an aqueous magnesium aluminosilicate suspension and selectively eluting

FUJICHEMICAL IND KK 12.09.73-JP-103537

B04 (14.10.81) *J50052-286 + C12p-01 12.09.73 as 103537 (HM)

Basic antibiotic is adsorbed on particles of Mg aluminosilicate (I) suspended in water, diluted neutral buffer, or salt soln. and selectively eluted by raising salt concn. or pH.

In an example, a lytic enzyme against yellow *Micrococcus* and Streptomycin (II) produced by *Streptomyces griseus* A-18 was sepd. The microbe was cultured on a medium (pH 7.2) contg. soybean cake extract 7.5, soluble starch 2, and yeast extract 0.5%, plus minor minerals at 30 deg.C for 3 days. The culture filtrate (500 ml) was diluted to 1 l and separated on a column of (I). The lytic enzyme and (II) adsorbed were eluted with NaCl; (II) was eluted first with a yield of 96% and the lytic enzyme was eluted with a yield of 75%. (II) was adsorbed on an active C, eluted with a mixt. of MeOH and HCl (100:0.5 l), concd., and purified by sephadex G-10. Yield was 85%. (J50052286) (5pp)

BOEF D16 06571 A/04 = NL-168-220
Hydroxy-succinimido ester derivs. - used for bonding biologically active protein to one another and carriers (NL 17.1.78)

BOEHRINGER MANNHEIM GMBH 14.07.76-DE-631656

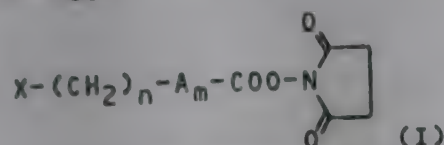
A41 B04 E13 (16.10.81) *DE2631-656 C07d-207/46 C07g-07 + C07c-103/52 C12n-11 23.06.77 as 006944 (913TM)

Biologically active proteins are bonded using hydroxy-succinimido-ester derivs. (I) which have at least one reactive gp. which either bonds with the protein and/or co-polymerise with a carrier.

In the formula, X is carboxy-succinimido-ester gp., -

CONHCH₂CH(OR')₂, -OCOC(R)=CH₂ or -COO(CH₂)₂NHCON(R')₂; A is -OCH₂CH₂- where n is 2 and X is succinimido-ester, and otherwise is a single bond; R is H, methyl or cyano; R' is (m)ethyl; n is 2-7; and m is 1-4.

The residual activity is higher than that obtd. in prior art using glutaraldehyde. (6pp)



UNIL D16 63408 X/34 = NL-168-264
Treating enzyme granules to reduce dust formation in handling - by coating simultaneously with a solid and liquid agent

UNILEVER NV 31.01.75-GB-004346

+ P42 (D25) (16.10.81) *BE-838-125 C11d-03/38

27.01.76 as 000783 (913NS)

Enzyme granules are protected against dust formation by coating them with a non-volatile liq. and a finely-divided solid agent, using 0.5-20 wt.% and 0.2-45 wt.% resp. of the two agents based on the uncoated granules. The total combined liq. and solid agents is 1-50 wt.% of the uncoated granules.

The granules are used in biological washing agents, typically in amts. of 1-15%. (5pp)

SAXH/ D16 82152 R/44 = NL-168-265
Support body for diffusion method for - bacteriologic analysis

SAXHOLM R 03.05.69-NO-001832

S03 (S05) (16.10.81) *NL7006-564 + C12m-01/34

04.05.70 as 008564 (160TM)

The method carries out a series of laboratory tests based on reactions between an initial material and a number of agents, the material being distributed over a substratum in a vessel and the agents being brought into contact with the substratum at intervals from each other, causing reaction through diffusion in the substratum.

Sleeve-type vessels are used, with closed diffusion-proof walls and contg. the agents, these being placed at intervals in the substratum so as to enclose part of it and reach nearly to the bottom of the vessel. When the agents are delivered into the sleeve vessels, each reaction in the substratum is limited to a set area enclosed by the vessel wall. (10pp)

RANG D16 74880 S/47 = NL-168-266
Edible proteins produced using non-toxic microorganisms

RANKS HOVIS MCDOUGA 24.06.70-GB-030584 (14.05.70-GB-023452)

C03 (D13) (16.10.81) *BE-767-232 C12n-01/14

14.05.71 as 008649 (913)

Edible, protein-contg. prepn. is produced by culturing a strain of *Fusarium graminearum*, I.M.I. 145425 submersibly or aerobically, in a medium contg. the necessary ingredients for growth, the substrate during growth being assimilable carbohydrate.

Pref. five specific strains derived from I.M.I. 145425 are used, namely I.M.I. 154209-154213. The fungal mycelium produced can be used as a thickening or gelling agent, and contains vitamins, lipids, and carbohydrates. The mycelium has good baking properties, used for protein-enriched bread, foods for breakfast and full meals. (8pp)

NATR D16 19943 U/15 = NL-168-268
Enzyme preps from nocardia microorganisms - for cholesterol determination

NATIONAL RES DEV CORP 19.06.72-GB-028650 (22.09.71-GB-044095)

B04 S03 S05 + P31 (16.10.81) *DE2246-695 C12n-09/04 G01n-33/92

21.09.72 as 012811 (913JB)

Enzyme prepn. which can convert cholesterol to delta-4 cholesterol is produced by culturing a microorganism of *Nocardia NCIB 10554* or *NCIB 10555* giving a cholesterol oxidase with an activity of at least 1 unit per 5 mg protein-N (pref. at least 1 unit per 50 micro.g protein-N).

Pref. the enzyme prepn. also contains a katalase-inhibitor. In use the prepn. is incubated in the liq. sample (esp. body fluid) so that oxidn. to the cholesterol and H₂O₂ occurs. The amt. of either of these reaction prods. or the amt. of O₂ consumed during reaction is then measured, using a suitable reagent included in the enzyme prepn. The liq. (e.g. serum) is hydrolysed with alkali and neutralised before the incubation.

Quantitative determ. of the total cholesterol-content is used in early diagnosis of arteriosclerosis and other disorders of the arteries. (14pp)

TAPO = * D16 82857 D/45 *SU-864-468
Enzyme immobilisation carrier prodn. - includes impregnation of activated inorganic porous material with epoxy resin soln. and hardening with amine soln.

TALL POLY(BIOK =) 27.05.77-SU-491073

A96 B04 (10.07.81) C07g-07/02

27.05.77 as 491073 (938GW)

Enzymes immobilised on water-insoluble activated sorbent carrier are used as chemical reagents and catalysts in pharmaceutical, chemical and food mfg. inds. for conducting enzymic processes. The activated enzyme carrier is prep. by coating inorganic porous sorbent with film-forming resin compsn. to improve its operational stability and enzyme sorption capacity.

Pref. the porous inorganic material, e.g. silica, having 200-2000 Angstrom pore dia. is impregnated with epoxy resin soln. and the resin is hardened on the carrier surface by treating it with hardener soln. (contg. polyethylene-polyamine or 1,6-hexamethylene-diamine as active agent) for 1 hrs. at 100-120 deg.C. The epoxy resin:amine equivalent ratio is 1:0.25, to give prod. which remains stable for 1-2 months at 4 deg.C. and which can retain 10-20 fold greater of enzyme. Bul. 24/30.6.81. (4pp)

AMCA = D16 12268 B/07 = SU-798-860
Forming visible images by ultrasonic irradiation of ferment plate - and using developer contg. hydrogen peroxide and aromatic amine

A MED CARDIOLOGY (MOSU) 20.07.77-SU-502751

G06 + P84 (23.01.81) *DE2831-782 + G01s-07/52 G03h-03

20.07.77 as 502751 (987AR)

Detector is for use in object imaging equipment, e.g. for applications in medicine and aims at registering an image formed by ultrasonic vibrations. The detector now comprises a multi-layer plate whose upper and lower layers are formed from a hygroscopic material, and one of the layers of the latter material is impregnated with an enzyme, and the intermediate layer is a cellular material with pore size not less than 0.05 mm. and not more than 5 mm. The cellular material is specif. a multi-layered structured material.

To obtain a latent image of the test object the effect of mass-transfer of the soln. of the enzyme through the hygroscopic porous material saturated with water is used. The visible image is obtained by processing the latent image layer with a chromogenic substrate. Bul. 3/23.1.81. (2pp)

BIOT = * D16 82979 D/45 *SU-802-909
Silver recovery from photographic processing waste - includes two-stage treatment with aq. soln. of proteinase, elastase and collagenase enzymes

BIOTECH INST 29.05.78-SU-620878

G06 M25 P83 (08.02.81) G03c-11/24

29.05.78 as 620878 (124VE)

Aq. 0.05-0.2% soln. of a complex ferment prepn. of alkaline proteinase obtd. from *Bacillus* type bacteria is used in the silver recovery from the photographic emulsion waste. The mixt. contains (in wt.%): alkaline proteinase 30-60, neutral proteinase 38-66, elastase 0.002-2 and collagnase the rest, and its soln. is used at pH 6-10, for 20-45 min. at 40-45 deg., in (pref.) two stages.

During the first, 10-20 min. stage gelatin in the emulsion layer is hydrolysed and Ag precipitates out, and the second, 15-25 min. stage completes the removal of gelatin from the support leaving it ready for re-use.

Tests show that use of the proposed mixt. increases the % recovery of Ag from 90-96% to 98-99.4%. Bul. 5/7.2.81 (5pp)

UVEG = * D16 82989 D/45 *SU-803-902
Blended substrate for intensive cultivation of mushrooms - contg. corn cobs, chicken droppings, malt sprouts, gypsum, cattle dung and ferrous sulphate

UKR VEG CUCURBIT 22.08.79-SU-811595

P13 (25.02.81) A01g-01/04

22.08.79 as 811595 (835VE)

The time required for mushroom cultivation is reduced and the yield of mushrooms is increased, by adding malt sprouts and corn cobs. The substrate comprises (in %): corn cobs 30-40, chicken droppings 5-10, malt sprouts 5-10, gypsum 3-5, remainder - cattle dung. 200-250 g. Fe(II) sulphate are added to each ton of substrate.

The time required for blending and maturing the above substrate is reduced to 15 days against 25-29 days when straw is used as the main ingredient. Addn. of FeSO₄.7H₂O stimulates the growth of micro-organisms, which in turn assist other bacteria in raising the substrate temp. Details are provided for blending the ingredients. Bul. 6/15.2.81. (4pp)

AGRI= ★ D16 83222 D/45 ★ SU-804-616
Cultivation of leguminous plants - using Rhizobium meliloti-136 as air nitrogen fixing bacterial strain for high crop yield
AGRIC MICROBIOL RES 21.02.79-SU-728497
C03 (18.02.81) C05f-11/08
21.02.79 as 728497 (835VE)
 Leguminous plants, crop yield is increased if air nitrogen fixing bacteria consisting of a strain of lucerne tuber bacteria, Rhizobium meliloti-136 are used for cultivation.

The strain Rhizobium meliloti-136 is obtd. from strain 425 by means of multi-subculturing and subsequent selection of the highly active N-fixing variants. It grows on bean agar contg. (g/l): peas 100.0, saccharose 20.0, agar 20.0 at pH 6.8-7.0. The yield of crude protein which results when the 136 strain was used in field trials amounted to 25 poods/hectare against 11 when the 425 strain was used. Bul. 6/15.2.81. (2pp)

HETO ★ D16 83249 D/45 ★ SU-804-647
Crosslinked porous styrene polymers - used as activity enhancing carriers for immobilised enzymes

HETEROORG CPDS AS USSR 02.03.78-SU-587510
A96 B02 (A13) (15.02.81) C08f-212/14 C08j-05/20
02.03.78 as 587510 (124VE)

Crosslinked styrene polymers with regular pore structure used as supports for immobilised ferments and enhancing their activity, are obtd. by Friedel Craft crosslinking polystyrene with bifunctional cpds. in the presence of finely dispersed (1000 Angstrom - 1 micron) NaCl, KCl or CaCO₃, with the salt:polystyrene vol. ratio of 0.25-1:1. After the polymerisation the salt is washed out with water or dilute acid, leaving behind cavities with size corresp. to the particle size of the salt used, and the total pore vol. to the amount of the salt. (3pp)

AMHP ★ D16 83264 D/45 ★ US 4295-280
Mfg. package contg. lyophilised immunological reagents - by mixing reagents above freezing point, passing to cold vessel and lyophilising

AMERICAN HOME PROD CORP 17.03.80-US-130927
B04 Q76 (20.10.81) F26b-05/06
17.03.80 as 130927 (1248AS)

Prepn. of a package contg. a mass of dry material (I) comprising at least 2 immunologic reagents that are incompatible with each other in the presence of moisture involves first prepg. aq. liquid compsns. of each reagent. Then cooling each compsn. to a temp. slightly above its f.pt. and mixing the compsns. Finally charging the mixt. at slightly above the f.pt. into a container at below the f.pt. of the mixt. so that it freezes and then lyophilising it.

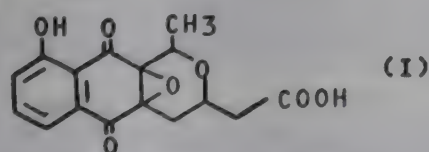
The procedure is simple and quick, and the packages are in a convenient form for use in immunoassays etc., esp. for pregnancy determ. with the reagents described in US 4123343. (4pp)

KYOW D16 66679 B/37 = US 4296-040
Prodn. of antimicrobial nanaomycin E - by cultivation of Streptomyces rosa ATCC 31155

KYOWA HAKKO KOGYO (KITA) 07.03.78-JP-025041
B02 C02 (20.10.81) *GB2015-525 C07d-311/78
23.11.70 as 097001 (+ 5.3.79-US-017314) (945WB)

Nanaomycin E of formula (I) is new. It may be produced by aerobic culture of a genus Streptomyces microorganism. A pref. microorganism is Streptomyces rosa variant notoensis (FERM P-2209, ATCC 31135).

Nanaomycin E is an antibiotic having equal or weaker activity against Gram positive bacteria and fungi than nanaomycin A and D but LD50 (i.v, mice) 60 mg/kg cf. 46 and 1.5 mg/kg respectively for the other cpds. It is also useful as an intermediate to nanaomycin A. (8pp)



ORTH D16 06231 D/05 = US 4296-090
Rapid detection of antigens on human erythrocytes - by testing for agglutination with reduced, alkylated IGG, esp. for rhesus D antigen

ORTHO PHARM CORP 05.10.79-US-082199 (13.07.79-US-057481)
B04 S03 (S05) (20.10.81) *EP--22-669 G01n-33/80
05.10.79 as 082199 (963TM)

Method for rapidly determining the presence or absence of D antigen on the red blood cells of a given individual comprises (a) adding and mixing with a red blood cell sample an antibody

reagent; and (b) without incubation observing the mixt to determine whether agglutination does or does not occur.

The antibody reagent comprises reduced and S-alkylated anti-D IgG which has an average titer of at least 32 for Dce cells in the slide or rapid tube test. Pref antibody is maintained at pH 7.5-8.3, and has a total protein concn of 8-10 wt %.

Method is esp useful for determining Rh incompatibilities between mother and foetus. (9pp)

SQUI ★ D16 83436 D/45 ★ US 4296-101
Antibiotic kristenin from Bacillus subtilis ATCC 31840 - useful against gram positive bacteria

SQUIBB E & SONS INC 13.02.78-US-877199
B04 (20.10.81) A61k-35 C12p-01/04 C12p-13 C12r-01/12
13.02.78 as 877199 (1248MR)

Antibiotic kristenin (I) is new. It has a characteristic i.r. spectrum (KBr), with peaks at 3350, 2950, 1660, 1620, 1515, 1455, 1225, 1160, 1110, 805 and 690 cm to minus 1; and u.v. spectrum (MeOH) with maxima at 210 (16210), 247 (6090) and 314 nm (4200). It analyses for C56.58, H6.9 and N9.92%.

Cpd. (I) is an antibacterial esp. effective against Gram-positive strains. It is a member of the same family as baciphelacin. Dose is 20-40 mg/kg daily by injection.

Cpd. (I) forms a peracetyl deriv. of formula C₂₆H₃₅N₃O₁₀ (by high resolution mass spectrum).

The antibiotic is obtd. by submerged aerobic fermentation of Bacillus subtilis ATCC 31340 in a nutrient medium contg. carbohydrate and N source. The prod. is recovered by solvent extn., chromatography etc. (4pp)

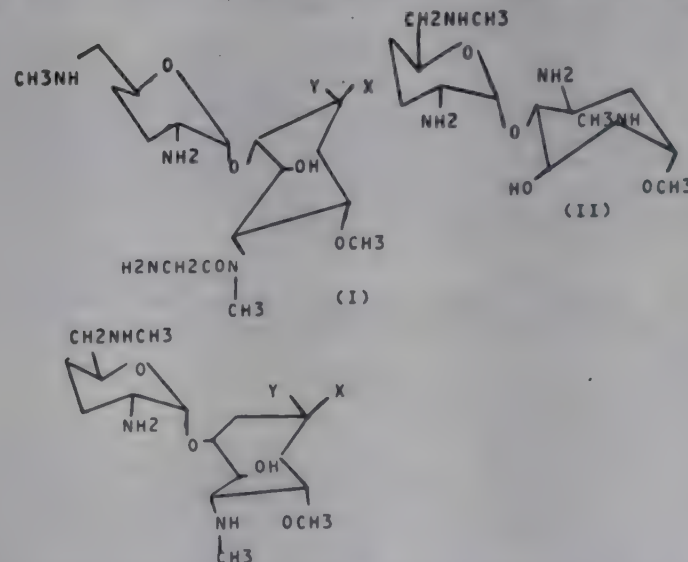
ZAID D16 82842 C/47 = US 4296-106
Istamycin A,B,AO and BO are antibiotics - prepd. by fermentation of Streptomyces tenjimariensis SS-939 ferm-P 4932 ATCC 31603 (NL 4.11.80)

ZH BISEIBUTSU KAGAKU KEN 17.09.79-JP-117912
(01.05.79-JP-052517)

B03 + P34 (20.10.81) *DE3012-014 A61k-31/71 C07h-15/22
18.04.80 as 141492 (945WB)

Istamycin cpds. chosen from istamycin A of formula (I) where X is NH₂ and Y is H; istamycin B of formula (I) where Y is NH₂ and X is H; istamycin AO of formula (II) or (III) where X is NH₂ and Y is H; and istamycin BO of formula (III) where X is H and Y is NH₂.

The cpds. are antibiotics produced by culture of Streptomyces tenjimariensis (FERM-P 4932, ATCC 31603) Istamycin A and B have high antibacterial activity against a wide range of gram negative and gram positive bacteria and low toxicity. Istamycin AO and BO and be converted to istamycin A and B respectively. (15pp)

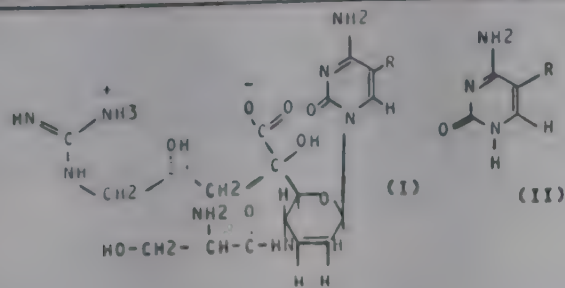


TAKE D16 19761 D/12 = US 4296-107
Mildiomycin analogues - useful as plant fungicidal and acaricidal agents, and prepd. by culturing Streptovorticillium spp., esp. ATCC 31120

TAKEDA CHEMICAL IND KK 24.08.79-JP-108330
C02 (20.10.81) *EP--24-866 A61k-31/70 C07h-17
19.08.80 as 179555 (945WB)

Mildiomycin analogues of formula (I) and their acid salts are new, where R is H, halo or lower alkyl. The cpds. have fungicidal and acaricidal action and are useful for plant protection. Application rate is 1-300 g/10 acres. The cpds. are nontoxic.

Cpds. (I) and corresp. cpds. where R is hydroxymethyl and their acid salts are prepd. by cultivating a Streptovorticillium genus microorganism in a culture medium contg. a cpd. of formula (II). Pref. the medium contains at least 3 mM N-methyl cpd. (11pp)



PFIZ D16 37168 B/20 = US 4296-203
Fermentative prodn. of pyruvate-free xanthan - for mobility control in secondary oil recovery

PFIZER INC 15.11.77-US-851757

H01 Q49 (20.10.81) *BE-871-955 C12n-01/20 C12n-15 C12p-19/06 C12r-01/64

15.11.77 as 851757 (936BZ)

Prepn. of pyruvate-free xanthan-contg. fermentation broth suitable for the prepn. of mobility control solns. used in oil recovery comprises, (a) aerobically fermenting a pyruvate free xanthan producing strain of *Xanthomonas campestris* in an aq. nutrient medium whose ingredients comprise a carbohydrate, a source of assimilable N and trace elements; and (b) continuing the fermentation until at least about 100 ppm. of pyruvate-free xanthan is present in the broth.

Pref. the strain is *Xanthomonas campestris* ATCC 31313. Sufficient shear is provided to cause adequate dispersion of the polysaccharide and prevention of clump formation. (6pp)

MERI ★ D16 83481 D/45 ★ US 4296-204
Cell culture propagation for vaccine prodn. - in system with motionless mixer element with cells attached to surfaces

MERCK & CO INC 07.07.80-US-166641 (25.01.78-US-872289)

B04 C03 (20.10.81) C12m-07

07.07.80 as 166641 (1248BZ)

Propagation of cells is effected by attaching the cells to the surfaces of a motionless mixer element disposed within a housing. The element comprises an assembly of parallel sheets shaped to provide channels that converge and diverge to form mixing cells. Each cell is formed and bounded by the juncture of 2 inlet channels that converge towards each other at about right angles in one plane and 2 outlet channels that diverge from each other at right angles in another plane, the planes being rotated through a right angle relative to each other.

Nutrients are supplied to the mixer and the cells are maintained under conditions permitting cell growth and division, then the cells are harvested.

With the method, and approp. appts., tissue culture propagation for high prodn. of cells and vaccines is conveniently effected, and uniform liquid flow across all growth surfaces is achieved. Uniform mixing is possible regardless of flow rate or equipment dimensions, and large scale appts. works as well as small scale appts. The method is esp. useful for replication of a virus by using virus-infected cells. (5pp)

VERM/ ★ D16 83482 D/45 ★ US 4296-205
Continuous dialysis flask for long term cell culture - with separate culturing and dialysis chambers separated by dialysis membrane

VERMADS 22.02.80-US-123552

(20.10.81) C12m-03/04 C12n-05

22.02.80 as 123552 (295BZ)

A flask for cell growth comprises a tissue culture chamber, a dialysis chamber, and a dialysis or millipore membrane sepg. the chambers. The tissue culture chamber is divided into a tissue culture compartment and a dialysis compartment by a tissue culture shelf which has perforations with upraised edges. These form tray-like areas so that cells cultured on the shelf so not pass over the edges and through the perforations.

Used for the prepn. of conditioned media from tissues or various cell populations, or for the long term in vitro growth and maintenance of cells. The shelf provides a compatible surface for the establishment of a feeder layer of cells, essential for the long term maintenance of haemopoietic stem cells. (6pp)

CORR D16 64204 D/36 = WP 8102-978
Protecting dogs against canine parvovirus - using live, attenuated vaccine prepd. by serial passaging

CORNELL RES FOUNDATION 18.04.80-US-141447

B04 C03 (20.10.81) *BE-888-487 + A61k-39/23

17.04.81 as U00508 (1251AS) (E) US4213985 US4211843 US4193991 US4193990 US4004974 US3944469 US3892627 US3709782 US3577525 US3562387 US3520972 US3465077 US3346456 US3293130 US3285817 US3133861 US2271819 US2271818 US2126131 28Jnl.Ref N(AU BR JP) EICHLE FR CH NL SE

inoculating with a vaccine based on live, modified CPV and prepd. by serial passaging of a virulent strain on non-oncogenic cells until it is no longer virulent. Pref. at least 80, esp. 108, passages are carried out at below the normal body temp. of dogs, esp. 33 deg.C.

Pref. cells used are the MDCK (CCL-34) line; canine or feline kidney cells; mink or feline lung cells; foetal bovine spleen cells, or bovine testes cells, and the virulent strain is esp. CPV-916. The vaccine itself is also claimed.

Compared with killed vaccines these live vaccines give a 4-5 times stronger immune response; a longer period of immunity, and are easier and cheaper to prepare. (28pp)

DEDE/ D16 82007 D/45 = WP 8103-030
Anaerobic fermentation plant - produces methane and agricultural fertiliser from controlled mixt. of dry and liq. organic substrates

DEDENON J M 21.04.80-FR-008855

(20.10.81) *EP--38-759 C12m-01

17.04.81 as F00053 (448BZ) (F) FR-898669 FR-914808 FR1011722 BE-507640 N(AU BR DK HU JP NO SU US)

An installation and a process for the prodn. of a fuel gas by anaerobic fermentation. The installation comprises a digester vessel for the fermentation of a very conc. substrate with a dry solids content above 16%. Solid waste materials for fermentation are taken through a chopping machine, sprayed with a liq. substrate having a dry solids content below 10% and mechanically distributed into the top of the digester vessel.

The liq. substrate is supplied to the spray point from a reception vessel equipped with a preheating coil. Within the digester vessel, the conc. substrate is held clear of the vessel wall by a lining basket which permits drainage of the substrate throughout the height of the vessel. Fermented residue is mechanically extracted at the base of the digester vessel. Liq. draining from the digester vessel is returned to the liq. substrate reception vessel.

Gas is pref. drawn off from the digester vessel at points throughout its height, as well as from the headspace of the liq. substrate reception vessel. The solid materials feeder pref. passes the chopped material through two, spaced hydraulic seals which isolate the interior of the digester vessel from the atmos.

The installation is very robust, continuously operating has low energy requirements and is viable for use on most farms. Method of feeding prevents formation of surface crust without resorting to a mechanised crust breaker. The complete process can be automatically controlled. (21pp)

RUSH- D16 81985 D/45 = WP 8103-031
Culture of cartilage cells in vitro - as source of anti-invasion factor

RUSH-PRESBYTERIAN 22.04.80-US-142731

B04 (20.10.81) *EP--38-719 C12n-05 C12p-21

20.04.81 as U00511 (367BZ) (E) USRE30239 US3450598 3.Jnl.Ref N(AU JP)

Method of culturing mammalian chondrocytes to produce cartilage tissue comprises (a) selecting cartilage tissue from mammals providing at least 60% viable chondrocytes, (b) preparing shavings from the tissue, (c) digesting the shavings to remove the extracellular matrix, (d) plating the resulting denuded cartilage cells in sufficient density to provide at least a monolayer, so that the cells are in contact with one another, and (e) growing the cells in a medium to obtain a culture with an extracellular matrix.

The shavings are pref. obtd. from calf articular cartilage. Step (c) is pref. effected by successive digestion in media contg. (i) 0.2-2% pronase, (ii) 0.1-1% collagenase and (iii) 0.1-3% trypsin or hyaluronidase. The media pref. also contain bovine serum. The denuded cells are pref. plated and grown in roller bottles. The AIF can be extracted as described in US4042457.

The cartilage tissue is useful as a source of anti-invasion factor (AIF), which is a protein with antitumour activity. (16pp)

PURD D16 81988 D/45 = WP 8103-032
Prepn. of ethanol from xylulose - by fermentation with yeast

PURDUE RESEARCH FOUNDATI 23.04.80-US-143146

E17 (20.10.81) *EP--38-723 C12p-07/06

17.04.81 as U00507 (478BZ) (E) US3957587 US3992262 US381331 US2950228 US2481263 3.Jnl.Ref N(BR JP)

EtOH is prepd. by fermenting xylulose (I) with a yeast.

(I) is pref. prepd. by isomerisation of xylose (II) by glucosyl isomerase or xylose isomerase (pref. effected simultaneously with the fermentation of (I)). (I) is fermented anaerobically at 5-4 pref. 24-35 deg./pH 3-9 pref. 4-6 using a yeast of genus *Candida*, *Torula*, *Schizosaccharomyces*, *Pichia*, or *Hansenula*, pre-Saccharomyces. Opt. the yeasts may be modified by DN. recombinant techniques, mutation, or protoplast infusion to include the ability to isomerise (II) to (I).

Inexpensive process is compatible with the conversion of 6C sugars, and affords EtOH from normally discarded hemicellulosic feedstocks (bagasse, etc.). (21pp)

See Also

D11 J5 6121428

D11 J5 6121429

D13 J5 6121444

D13 J8 1043212

D17 NL 168270

D17: SUGAR; STARCH

JAOR ★ D17 82838 D/45 ★ J8 1043-720
Treatment of filtration cake from sugar purificn. - involves calcining in presence of oxygen, followed by removal of insoluble filtration aid (J5 4.07.75)

JAPAN ORGANO KK 22.11.73-JP-130702
(14.10.81) C13d-03/06

22.11.73 as 130702 (22RP)

Filtration cake obtd. in purificn. of sugar, which contains Ca carbonate, sugar, organic substances, filtration aid, etc. is calcined at 800-1000 deg. C in the presence of oxygen, then the resultant is added to sugar soln. Insoluble filtration aid is recovered by filtration and the filtrate is recycled to the purificn. of sugar. (J50082659) (6pp)

TATL D17 72498 W/44 = NL-168-269
Sugar crystallisation by high shear nucleation - as continuous process via colloid mill or homogeniser with short retention time

TATE & LYLE LTD 16.04.74-GB-016572

(16.10.81) *BE-827-985 C13f-01/02

16.04.75 as 004545 (160TM)

The method extracts sugar crystals from a sugar soln., the latter being thickened to an over-satd. syrup to which a force is applied so as to form crystal cores. The syrup contg. the cores is crystallised and the crystals are extd. from it.

In the core-forming zone, the syrup is subjected for a max. of one second to a sepn. force with a velocity gradient of at least 5000 cm/sec./cm, to give instantaneous homogeneous core formation. The syrup is then removed before any appreciable crystallisation has taken place and delivered to a separate zone for crystal extn. (6pp)

HAYB D17 78388 R/42 = NL-168-270
Prodn of macromolecular amylose

HAYASHIBARA CO 15.04.69-JP-029171

(D16) (16.10.81) *BE-748-974 + C12p-19/16 C13l-01/08

15.04.70 as 005374 Add to 160614 (913)

In the parent patent, amylose with a degree of polymerisation of at least 700 is obtd. from starch contg. more than 50 wt.% amylose, by thickening the starch, cooling it to 50-60 deg.C., and reacting it with a thermoresistant amylo-1,6-glucosidase. The amylose is then recovered from the starch hydrolysate at 40-90 deg.C.

In this addition, the glucosidase used is produced from one of the strains of *Streptomyces diastatochromogenes* IFO 3337, *Actinomyces globisporus* IFO 12208, *Nocardia asteroides* IFO 3384, *Micromonospora melanospora* IFO 12515 and *Thermomonospora viridis* IFO 12207. (3pp)

UNVO ★ D17 83389 D/45 ★ US 4295-99
Zeolite crystalline aluminosilicate adsorbent - contg. cellulose acetate butyrate as water permeable binder used in separating component from mixt. e.g. of saccharide(s)

UOP INC 11.04.80-US-139492 (15.06.79-US-048955)

A11 J01 (A91) (20.10.81) B01j-20/18 B01j-29/08

11.04.80 as 139492 C.I.p.4248737 (966)

A zeolite crystalline aluminosilicate (I) adsorbent, used in separating a component from a mixt. in aq. soln., contains cellulose acetate butyrate (II) as water permeable binder. The adsorbent is made by (a) mixing powders of (I) and the binder with a liq. solvent to form a malleable mixt., (b) forming the mixt. into discrete formations, (c) removing the solvent to obtd. hard dry formations, and (d) breaking the dry formations into particles of the desired size.

Pref. (I) is X or Y zeolite and may contain alkali(ne earth) metal cations at exchangeable cationic sites. Pref. solvent of (a) is acetic acid, p-dioxane, MEK, acetone, 2-heptanone or 5-methyl-2-hexanone. (II) content of the adsorbent particles is 2.0-50.0 wt. %.

Feed mixt. may be aq. solns. of aldose(s) and ketose(s) or mono- and oligosaccharides, e.g. starch syrup such as corn syrup. The binder reduces the extent of dissolution of the silicon component of the adsorbent in the aq. soln. with reduction in the disintegration of the adsorbent. The (II) has a greater tendency to fill the macropores of the adsorbent as shown by a superior strength. (II) has greater hydrolysis. (10pp)

GREA- D17 80339 D/44 = WP 8103-033
Extn. of sugar from plant tissue esp. beet - with addn. of carbon dioxide to diffusion water flow near juice end of appts.

GREAT WESTERN SUGAR 14.10.80-US-196548 (22.04.80-US-142664)

(29.10.81) *GB2074-187 C13d-01/08

22.04.81 as U00535 (955BZ) (E) US3313853 US3347705 US3925097 2.Jnl.Ref N(RO SU)

In the extn. of sugar from plant tissue, the plant tissue is contacted near the juice end of the process with diffusion water contg. carbon dioxide. The process is esp. applicable to sugar extn. from sugar beet cossettes. The CO₂ may be dispersed in the diffusion water from nozzles in the bottom of the appts. near the juice end. It can also be added in the form of a carbonate or bicarbonate salt, or as solid CO₂. Typically at least 0.5, esp. 0.625 kg CO₂ are used per metric ton of beet processed.

The efficiency of sugar extn., and the purity of the juice obtd., are increased. (24pp)

See Also

D13 J8 1043212

D16 J5 6121496

D16 J5 6121497

D16 J8 1043241

D18: SKINS; HIDES; LEATHER; TOBACCO

CIGA ★ D18 81674 D/45 ★ BE-888-508
Tobacco smoke filters made from specified paper - corrugated and/or fibrillated lengthwise, crimped laterally and rolled up

CIGARETTE COMPONENT LTD 21.04.80-GB-013039

P15 (21.10.81) A24d B01d

21.04.81 as 888506 (597RH)

The filter comprises a band of paper corrugated and/or fibrillated in the longitudinal direction, crimped laterally and put in rod form, the paper being produced on an inclined cloth machine from 1-25 mm long fibres and having a weight before corrugation and/or fibrillation of 12-40 g/sq.m. It is prepd. by forming the paper as above using a 0.008-1% paste of the fibres. The paper is then advanced continuously longitudinally through rollers having peripheral undulations followed by crimping advancing the paper laterally and forming a cylindrical roll which is continuously cut into sections.

Incorporated in cigarettes, the filter gives a cigarette smoke with an excellent taste and the filter has a better combination of low pressure drop and hardness than can be currently attained, with a better tar retention. (7pp)

KRAU- ★ D18 81801 D/45 ★ DE 8015-748
Reversible belt conveyor device - for leather press with two short sections and clamping roll on rear section

KRAUSE J GMBH 24.04.80-DE-015743

P71 (29.10.81) B30b-15/30 C14b-01/30 C14b-17/06

24.04.80 as 015743 (39RH)

A reversible belt conveyor for charging sheets of natural or synthetic leather into the gap between a stationary die and a moving heated die of a press consists of a 1m long endless belt on both sides of the press. The conveyors first pass the 3-3m long sheet right through the press and stop. The sheet is prevented from slipping off by a clamping roll, applied to the rear belt. The belts are then reversed and move the sheet back by the amt. which the press can handle.

The forward and stepped-back movements are actuated either by push button or automatically. This saves the second operator and requires a min. of floor space. (4pp)

ROUV/★ D18 82028 D/45 ★FR 2478-957
Extracting nicotine from tobacco - includes boiling in water, washing, then adding colouring and flavouring agents in dryer
ROUVIER JG 27.03.80-FR-007132
P15 (02.10.81) A24b-15/18

27.03.80 as 007132 (349DH)
Tobacco for cigars, cigarettes and pipes is subjected to a treatment for abstracting the nicotine. The raw tobacco is placed into an extraction vessel for boiling with water, and afterwards washed with water to remove the nicotine.

The prod. is then treated with colouring and flavouring agents in a drying unit to restore the colour and flavours which have been removed. (3pp)

FARB D18 67216 A/38 = GB 1602-043
Chromium tanning material and sodium sulphate decahydrate prepn. - by reduction and neutralisation of sodium bi:sulphate contaminated with chromium cpd.

BAYER AG 09.03.77-DE-710175
E31 (E34) (04.11.81) *DE2710-175 C01d-05/16
02.03.78 as 008299 (974TM)
A chrome tanning agent and Na₂SO₄ are prepd. from Na₂SO₄ or NaHSO₄ contaminated with Cr cpds.

Process comprises (a) treating a 20-70% aq. Na₂SO₄ or NaHSO₄ soln. or suspension which is acid due to the presence of H₂SO₄ and still contg. Cr cpds. with SO₂ until all the Cr is in the form of Cr (III); (b) adding Na₂CO₃ to part of the reduced soln. to bring it to pH 8-8.5; (c) sepg. off the pptd. Cr(OH)₃ and opt. washing with water and (d) reacting the Cr(OH)₃ with the remainder of the soln. to produce a basic Cr₂(SO₄)₃ soln. contg. Na₂SO₄ and which has a Schorlemmer basicity of 20-50%. (4pp)

AMMA★ D18 D/45 ★IT 1052-958
Preventing mould and microorganisms attacking regenerated tobacco

AMER MACH & FOUNDRY 08.03.66-US-532473
P15 (31.08.81) A24b

NISB★ D18 82361 D/45 ★J5 6121-477
Enhancing taste and flavour of tobacco - by addn. of N-methyl pyrrole cpd.

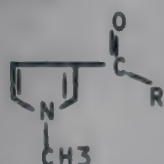
JAPAN TOBACCO & SALT PUB(FUJI-SOSH) 26.02.80-JP-022227

E13 P15 (24.09.81) A24b-03/12

26.02.80 as 022227 (5WB)

Method comprises adding a pyrrole cpd. (I) to tobacco and/or a material used in prepg. cigarettes. R is H or 1-4C alkyl. Specific. (I) are 3-formyl-N-methylpyrrole and 3-acetyl-N-methylpyrrole which are known and 3-propionyl-N-methylpyrrole, 3-butyryl-N-methylpyrrole and 3-valeryl-N-methylpyrrole which are novel cpds.

(I) can suppress undesirable smell, taste, and stimulus of tobacco and can be used in amts. 1/10 that of conventional improving agent. (4pp)



(I)

NISB D18 48052 B/26 = J8 1043-226
Stable flavouring component for tobacco - comprises reaction prod. of zirconium and flavour cpd. with oxygen-contg. functional sp.

JAPAN TOBACCO & SALT PUB 25.10.77-JP-127200

E32 P15 (09.10.81) *J54082-336 A24b-03/12

25.10.77 as 127200 (42AS)

Flavour comprises the reaction prod. of Zr and a flavour cpd. with an O-contg. functional radical in the molecule. The taste of tobacco leaves of low quality can be improved The Zr stabilises the volatile flavour. (J54082336) (7pp)

LEAT=★ D18 82880 D/45 ★SU -777-063
Sole leather prodn. - includes oiling, neutralisation and filling in one stage using urotropin and urea and, for tanning, titanium cpd.

LEATHER SHOE IND 21.11.78-SU-887434

(07.11.80) C14c-03/08

21.11.78 as 887434 (70VE)

Leather for soles is produced by tanning a hide or a chromated intermediate product with a titanium cpd., neutralising additionally tanning, filling and oiling. This process is intensified by simultaneously carrying out the oiling, neutralisation and filling using the spent bath from the tanning. The liquid coefft. is 0.5-0.6. For the oiling, an acid-resistant fat emulsion is used. For the neutralisation and filling, urotropine and urea are used. The consumption of urotropine is pref. 4.5-6 and urea 9-12% w.r.t. the hide.

Urea-formaldehyde cpds. which are formed by reaction with H₂SO₄ in the spent tanning bath, act as fillers. The oiling-neutralising-filling stage lasts 4-6 hr. (conventional 12-18 hr.). Bul.41/7.11.80 (2pp)

ARCH- D18 79202 C/45 = US 4295-478
Tipping paper for air Ventilated cigarette - with adhesive coating having void perforated areas

ARCHER R J R INC 11.04.79-US-029163

A97 G03 P15 (A81) (20.10.81) *EP--17-784 A24c-05/56 A24d-03

11.04.79 as 029163 (006RH)

Ventilated cigarette filter tip, has non-porous wrapping paper of which a medial circumferential band carries a pattern of heat-activatable adhesive comprising coated and void areas, the latter having microscopic perforations.

Specifically the adhesive-coated areas comprise touching diamonds or circles, or spaced bands, and the microscopic perforations in the void areas are made by spark erosion. (6pp)

UGIN D18 27180 Y/16 = US 4295-976
Polymeric antistaining compsn. esp. for textiles - prepd. from thiol carboxylic acid and perfluoroalkyl ethylenic cpd.

PROD CHIM UGINE KUH' 17.10.75-FR-031794

A87 F06 G02 + P42 (A82) (20.10.81) *BE-847-369 C07c-149/2

C09k-15/10 C14c-09

28.09.76 as 727497 (964MR)

Fluorinated telemerisation prod. consists of reaction prod. of (a) one mole of an ester of polyol(s) with acid(s) of formula HS A(COOH)_n (where A is aliphatic or cyclic hydrocarbyl and n is 1-4 and (b) 1-5 moles of cpd(s). possessing at least one ethylene bond at least one of the cpds. corresp. to formula Rf-B-CR:CHR (where Rf is 1-20 perfluorinated chain; one R is H and the other is H or 1-4C alkyl, and B is divalent radical contg. O, N and/or S).

Pref. B is of formula -(G12)x-SO₂-NR'-(CXX')y-CRR'-O-C (where x is 1-20, y is 1-4, R' is H, 1-20C alkyl, 5-12C cycloalkyl, or 4C hydroxyalkyl; and R, R', X and X' are each H or 1-4C alkyl).

The prod. confers upon textiles an antistain and soil-release finish, while permitting easy elimination of soil by watering (13pp)

See Also

D22 US 4295887

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

OREA★ D21 81672 D/45 ★BE -888-488
Salts of acid colourants and specified copolymers - contg. tert. amino gps. used in cosmetics, esp. lipstick and nail varnish

L'OREAL SA 18.04.80-FR-008742

A96 E24 (19.10.81) A61k-07/02 C08f-08 C09b-69/10

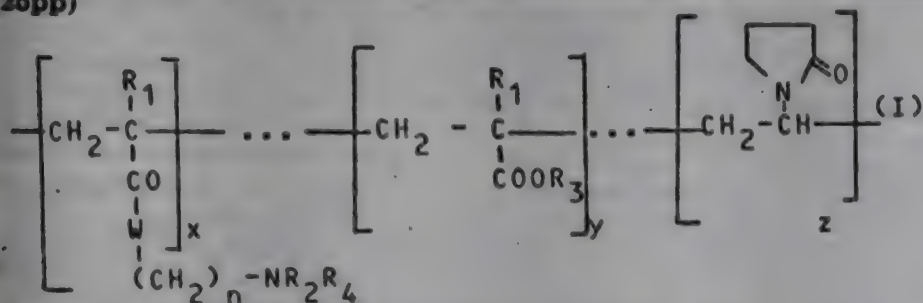
17.04.81 as 888488 (597RH)

The salts are obt'd. by salification with a copolymer of formula (I)

in which n is 2 or 3; W is -O- or -NH-; R₁ is H or methyl; R₂ and R₃ are each 1-3C alkyl; R₃ is 1-18C alkyl; x is 5-95% by weight (pr 15-75), y is 5-95% (pref. 25-87%) and z is 0-20% with x + y + z = 100. The novel salts are used in cosmetic compsns.

The colourants are used in make-up partic. in lipstick and nail varnish, rouge etc. They reduce and even totally suppress a tendency to superficially dye the surface to which it is applied.

(25pp)



RORE- ★ D21 81887 D/45 ★ BE-889-327
Compsns. for acne treatment - contg. acyl peroxide and erythromycin

RORER INT OVERSEAS 08.12.80-US-214124

A96 B05 (16.10.81) A61k

22.06.81 as 889327 (367AT)

Compsns. for topical treatment of acne contain an organic acyl peroxide (I) and an erythromycin cpd. (II) comprising erythromycin (IIa) or its stearate or glucoheptonate. The (I): (II) wt. ratio is 0.5-30:1.

(I) is pref. benzoyl peroxide (Ia) or aluroyl peroxide, esp. micronised (Ia), and (II) is pref. (IIa). The compsns. are pref. formulated as gels comprising 1-30 wt.% micronised (Ia) with an ave. particle size of less than 35 microns, 2.0-5.0 wt.% (I), 0.1-8.0 wt.% Na dioctyl sulphosuccinate (III), 1.0-6.0 wt.% of another wetting agent, 0.5-15 wt.% of a gelling agent, 10-80 wt.% of a lower alkanol, and water to 100%. The gelling agent is pref. colloidal Mg aluminosilicate, hydroxypropyl methyl cellulose, microcrystalline cellulose or a hydroxylated vinyl polymer.

Combinations of (I) and (II) act synergistically, (I) inhibiting fatty acid formation by extracellular lipase inactivation and (II) controlling the concn. of *Corynebacterium acnes*. (23pp)

HENK ★ D21 81815 D/45 ★ DE 3016-008
Oxidn. hair dye compsns. - contg. chloromethyl-meta-aminophenol or salt derivs. as coupling component and pref. 2,4,5,6-tetra-amino-pyrimidine as developer

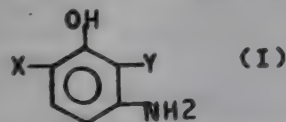
HENKEL KG AUF AKTIEN 25.04.80-DE-018008

E14 (29.10.81) A61k-07/13 C07c-19 C07c-91/44

25.04.80 as 018008 (200KB)

New chloro-methyl-m-aminophenols have formula (I), (where X and Y are Cl or Me, provided that if X is Cl, Y is Me and if X is Me, Y is Cl). The use of (I), opt. as their salts with inorganic or organic acids, as coupling components in oxidn. hair-dye compsns. is claimed. (I) yield fast, strong light-blue via dark-blue to dark-violet shades. (I) are water-soluble, stable, non-toxic and do not irritate the skin.

(I) are prepd. by catalytically hydrogenating chloro-methyl-m-aminophenols in the presence of Raney-Ni, in an inert solvent. Oxidn. hair-dye compsns. contain (I), or their salts, as couplers and standard developers. A hair-dye compsn. contg. (I), esp. 2-chloro-6-methyl-3-aminophenol, (IA), or its salts, as coupler and 2,4,5,6-tetraamino-pyrimidine, (II), as developer, is specifically claimed. Developer-coupler combination content is esp. 0.2-5 (1-3) wt.%, w.r.t. total hair-dye compsn. (13pp)



HENK ★ D21 81838 D/45 ★ DE 3016-216
Oxidn. hair-dye compsn. - contg. ethyl-4-amino-3-methyl-phenyl-amino-ethyl methyl sulphonamide as developer and standard coupler

HENKEL KG AUF AKTIEN 26.04.80-DE-016216

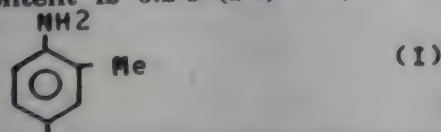
E14 (29.10.81) A61k-07/13

26.04.80 as 016216 (200AS)

Oxidn. hair-dye compsns., contg. standard coupler components and additives, contain N-(2-(N-ethyl-N-(4-amino-3-methyl-phenyl)-amino)-ethyl)-methyl sulphonamide having formula (I) as developer component, opt. present as an inorganic or organic salt.

Strong, fast red via brown and violet to blue-black shades are obt'd. (I) are water-soluble, stable on storage and non-toxic and do not irritate the skin.

(I) is commercially available as its sulphate having formula (I). 1.5H₂SO₄.H₂O and was hitherto used as a photo-developer. The oxidn. hair-dye compsns. can also contain standard developer components and opt. standard, direct dyes. Developer-coupler combination content is 0.2-5 (1-3) wt.%, w.r.t. total hair-dye



compsn. The hair-dye compsns. can be applied in a weakly acid to alkaline medium, esp. at pH 8-10, at 15-40 deg.C. (11pp)

HENK ★ D21 81845 D/45 ★ DE 3016-289
Omega-amino-1-hydroxy-alkylidene-1,1 bis:phosphonic acids prepn. - by reacting amino carboxylic acid with phosphorous acid and phosphorus tri- or penta-chloride or phosphoryl chloride and hydrolysing prod.

HENKEL KG AUF AKTIEN 28.04.80-DE-016289

B05 E11 (29.10.81) C07f-09/38

28.04.80 as 016289 (1401BZ)

The prepn. of w-amino-1-hydroxyalkylidene-1,1-bis phosphonic acid derivs. of formula (I), comprises reacting an amino carboxylic acid of formula (II)

H₂N-CH₂(CH₂)_m-COOH

with a mixt. of H₃PO₃ and PCl₃ or PCl₅, or with a mixt. of H₃PO₃ and POCl₃. The reaction prod. is then hydrolysed with a strong acid which will not oxidise (I), (where n is an integer 3-5 and m is an integer 2-4).

(I) are used in the prepn. of cosmetics and pharmaceuticals. (I) also have a high tendency to form complexes with multivalent metal ions esp. alkaline earth metal ions and heavy metal ions such as Fe and Cu. (I) can therefore be used as precursors in water softening applications. (11pp)

FARB D21 80936 B/45 = DS 2960-522
Cosmetic light-protective compsn. - contains 4-methoxybenzylidene-cyanoacetate as UV A filter and opt. a UV B filter

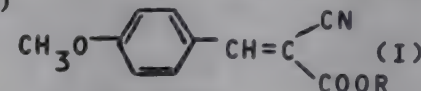
BAYER AG 18.04.78-DE-816819

E14 (29.10.81) *DE2816-819 A61k-07/44

06.04.79 as 960522 Based on EPG005182 (922AT)

A UV-protecting agent, esp. for incorporation into suncreams and the like, contains at least one 4-methoxybenzylidene-cyanoacetate of formula (I) (where R is n-hexyl, n-octyl, n-decyl or 9-10C primary isoalkyl) in addn. to auxiliary UV-protectors (e.g. 2-phenyl-5-methyl-benzoxazole, 2-phenyl-benzimidazole-5-sulphonic acid or 4-methoxy-cinnamic acid, isoamyl ester).

(I) have good oil-solubility, general stability, no significant odour or colour, are physiologically innocuous and easily produced. (11pp)



UNIL D21 08019 B/05 = EP G000-664
Sprayable hair lacquer compsn. - contg. resin and friction reducing agent in specified ratio

UNILEVER PLC 28.07.77-GB-031780

A96 (28.10.81) *BE-869-318 A61k-07/11

26.07.78 as 300201 (945AT) (E) US3876760 US-510998 1.Jnl.Ref E(BE CH DE FR GB NL SE)

Hairspray compsn. contains (A) 0.4-7.5 wt.% hairspray resin, (B) solvent and opt. (C) propellant. The compsn. now additionally contains (D) a drag reducing agent dissolved in the solvent. Wt. ratio of (A):(D) is 10000-2:1 and (D) comprises less than 0.3 wt.% of the compsn.

Pref. (D) is nonionic, has drag redn. efficiency of at least 10% and is soluble in ethanol, methylene chloride or water. It is suitably hydroxypropyl cellulose of average mol. wt. at least 500000, polyoxyethylene of average mol. wt. at least 40000, or a polyacrylic elastomer.

The compsn. has improved holding power. (21pp)

CHSC- ★ D21 81897 D/45 ★ EP -38-512
Amphoteric ammonium carboxylate or phosphate complexes - useful as transport vehicles for pharmaceuticals or cosmetics

CHEM INST SCHAFFER 17.04.80-CH-002973

B05 E19 (B03) (28.10.81) A61k-07 A61k-47 C07c-103/44 C07d-233/14

14.04.81 as 102849 (367JB) (E) GB1493093 US3262951 US4044034 US3427251 E(AT BE CH DE FR GB IT LI LU NL SE)

New amphoteric complexes (I) are of formula (A)zB (where A is a 1-(CH₂CH₂R₂)-2-R₁-3-R₃-imidazolinium cation or a cation of formula R₁-CO-N(CH₂CH₂R₂)-CH₂CH₂-N(+)H₂R₃; B is a carboxylate anion of formula (2-)OOC-CH₂(OCH₂CH₂)_xOR or a phosphate anion of formula (2-) O₃PO-CH₂CH₂(OCH₂CH₂)_xOR; R₁ is 6-22C alkyl; R₂ is -R₄-CH₂CH₂-COOH, -R₄-CH₁/CH-COOH or -OPO₃H₂; R₃ is H, CH₂COOH or CH₂CH₂COOH; R₄ is NH, NHCO or OCO; R is 8-22C alkyl; x is 1-10; z is 1 when the anion is a carboxylate or 2 when the anion is a phosphate).

Prefd complexes are (I) where R₁/R₁/dodecyl, R₃/CH₂CH₂COOH, x is 5, and R₂ is NHCH₂CH₂COOH, OOCCH₁/CHCOOH or NHCOCH₁/CHCOOH.

(I) are useful as carriers for pharmaceutical or cosmetic materials, giving improved penetration of the active ingredients through the skin, mucous membranes and cell membranes when applied topically or orally. (29pp)

RICH- D21 60306 D/33 = EP --38-533
Anhydrous denture adhesive liq. compsn. - contg. sodium carboxymethyl-cellulose, polyethylene oxide homopolymer and mineral oil

RICHARDSON-VICKS (RICH) 17.04.80-US-140462
A96 (28.10.81) *US4280-936 + A61k-06
15.04.81 as 102922 (NS) (E) No-citns. E(BE CH DE FR GB IT LI NL SE)

Anhydrous denture adhesive liq. compsn. consists of: (a) Na carboxymethylcellulose (I); (b) poly(ethylene oxide) homopolymer (II); and (c) mineral oil (III). Wt. ratio (I):(II) is ca. 3:1 and (I) and (II) comprise ca. 45 wt.% of total compsn. Prefd. (I) is type '7H3S' (RTM); prefd. (II) is 'Polyox WSR-301' (RTM). Compsn. pref. also contains 1.5-4 esp. 2-3 partic. ca. 2.5 wt.% of a low mol. wt. polyethylene polymer as thickening agent (mol. wt. 1000-5000 pref. 2000-2500 esp. ca. 2000; particle size below 422 micron pref. 74-149 microns esp. ca. 74 microns) pref. 'A-C Polyethylene 6-A' (RTM). The compsn. has superior adherent props. over prolonged periods of time. (10pp)

KOLM * D21 81954 D/45 ★EP --38-645
Cosmetic prepn. - by evapn. of volatile siloxane from slurry contg. filler, fatty alcohol, and siloxane

KOLMAR LTD 21.04.80-US-142447
P24 Q31 Q34 (28.10.81) A45d-33 B65b-03/06 B65d-83/06
07.04.81 as 301504 (478AS) (E) US3860016 DS-512744 GB-923077 E(BE CH DE FR GB IT LI SE)

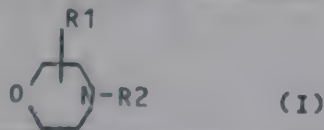
Cosmetic prod. (which includes a casing with a bottom surface and an open top (with cover), which defines a cavity; the bottom surface having an opening communicating with the cavity) is prepd. by (a) inverting the casing so that the opening is exposed, and positioning the open top against a supporting surface; (b) introducing a liq. slurry contg. a finely divided filler (I), a 12-22C fatty alcohol (II), and a liq. volatile siloxane (III) into the opening to fill the cavity and form a moulded cake; (c) evaporating (III) to form a dried cake which has a moulded surface exposed through the open top; and (d) enclosing the moulded surface with the cover.

Method is inexpensive, and avoids the use of a conventional metal pan. The design configurations of the cake are greatly increased, finely divided materials which are not normally successfully compressed may be used to form the cake, and microbial growth is inhibited. (23pp)

FERO D21 56987 D/32 = EP --38-785
2- or 3-alkyl 4-hydroxy-alkyl morpholine derivs. - inhibit formation of or remove dental plaque and avoid caries, gingivitis and parodontitis

FERROSAN 21.03.80-SE-002218
B03 (28.10.81) *BE-888-052 A61k-07/16 C07d-265/30
18.03.81 as 850045 (395JB) (E) US3926861 US4026935 E(AT BE CH DE FR GB IT LI LU NL SE)
2 or 3 R1-4-R2 morpholine derivs. of formula (I) and their salts e.g. hydrofluoride and hydrochloride are new (where R1 is opt. branched, 6-16C alkyl in position 2 or 3 and R2 is opt. branched, 2-10C alkyl subst. by a hydroxy. The sum of the C atoms of R1 and R2 is at least 10 and pref. 10-20).

Treatment of the buccal cavity and tooth surfaces to inhibit the formation of, or remove already formed dental plaque, avoids dental caries gingivitis and parodontitis. The cpds. do not have pronounced antibacterial activity, and allow a normal bacterial state in the mouth and intestinal tract. (I) have a slight antiinflammatory effect and do not have any teratological side effects. They are more soluble than many used cpds. (about 1 wt.%) and may be used as tooth pastes or powders, mouth washes, chewing gum, pastilles, prepn. designed to be vapourised, etc. (I) usually comprise 0.1-5 wt.% of the total compsn. In vivo activity tests are described. (26pp)



BONT/ * D21 82030 D/45 ★FR 2478-997
Cosmetic prod. in the form of frozen tablet - contains substances treated chemically or physically, excipient preservative, perfumes etc.

BONTEMPS R 27.03.80-FR-006824 (10.04.79-FR-009003)
P33 (02.10.81) A61j-03 A61k-07
27.03.80 as 006824 Add to 10.4.79-009003 (448DH)
In the parent patent a cosmetic prod. is described which is made without incipient or preservative. The prod. is presented as a frozen tablet or block of natural, organic substances which have received no chemical treatment. The tablet is for direct application to the skin where the vaso-constrictive effect of the low temp. enhances the action of the cosmetic substances.

In this addn. the frozen tablet is made of cosmetic substance which have been subjected to chemical and/or physical treatment and which can contain excipients, preservative and/or perfumes. Pref. the prod. is based on mixes, emulsions or suspensions of materials which would normally be unstable or incompatible in combination. This prod. now contains a small proportion of anti-oxidants, preservatives, emulsifiers etc. in particular. The prod. may contain unsaturated fats.

The prod. are pref. moulded in closed moulds, partic. mould designed for the mfr. of iced lollies and having a handle by which the tablet can be manipulated when taken from the refrigerator and demoulded. Useful in cosmetic substances additives such as stabilisers, preservatives etc. The introduction of perfumes now accepted. (9pp)

PILO/ * D21 82069 D/45 ★FR 2479-25
Bars of soap with surface recess - to receive and retain other pieces of soap too small for further use

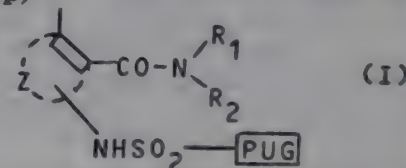
PILOT B J 31.03.80-FR-007214
(02.10.81) C11d-13/14
31.03.80 as 007214 (515DH)
Bars of domestic soap are moulded with a shallow rectangular or oval recess in one face, to receive and retain scraps of previously used soap and thus avoid waste without inconvenience. Pref. the surface of the recess is slightly concave to approximate to the typically lenticular shape of a residual piece of soap used for domestic washing. (6pp)

EAST D21 07933 B/04 ★GB 1601-76
Adhesive compsn. based on allyl 2-cyanoacrylate - have good hydrolytic stability, esp. for fixing orthodontic brackets to teeth.

EASTMAN KODAK CO 23.07.76-US-708158 (09.09.77-US-832048)
A14 G03 + P83 (A96) (04.11.81) *US4134-929 + C07c-103/ G03c-01/06 G03c-05/54
25.05.78 as 022413 (937AT)

Photosensitive photographic material contains in at least of photosensitive silver halide emulsion layer or in an adjacent layer a non-diffusible redox releasing cpd. of formula (I), where R1 and R2 are each aliphatic, araliphatic or alicyclic gp. having 1-30C atoms or aromatic gp. having 6-30C atoms, the gps. R1 and R2 being of such size and configuration that the cpd. is rendered non-diffusible; G is -OR5 or -NHR6, pref. -OH or -NH2, where R5 is H or hydrolysable gp., R6 is H, 1-22C alkyl or -SO2-PUG gp.; Z the atoms necessary to complete one, two or three rings carbocyclic or heterocyclic gp. pref. opt. subst. benzene naphthalene ring having 5-7 nuclear atoms in each ring; PUG radical of a photographically useful cpd., pref. dye or d. precursor and -NH2SO2PUG gp. is joined to posn. on Z to conjugate to G, pref. meta to the ballasting carbamoyl gp.

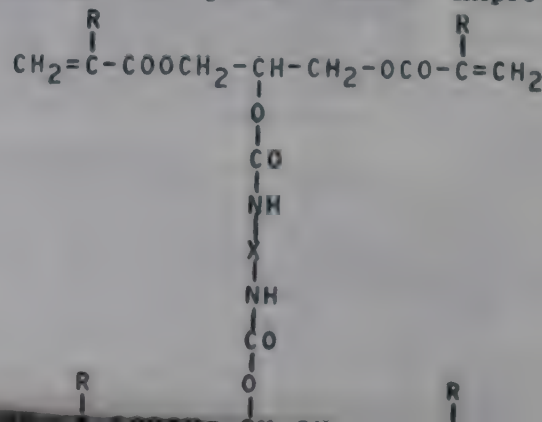
The imagewise distribution of PUG aids formation enhancement of the image. (28pp) G



KURS * D21 82157 D/45 ★GB 2074-4
Polymerisable acrylate-urethane binders - used in filled dental cement compsn.

KURARAY KK 17.11.80-JP-162515 (29.04.80-JP-057598)
A96 (A14) (04.11.81) C07c-125/07 C08f-02/44 C08f-20/36
13.04.81 as 011581 (513AT)
Cement compsn. comprises (a) a filler, (b) a binder comprising 20-100wt.% of a free radical-polymerisable urethane-acrylate monomer, in which R is H or CH3 and X is 1-48C organic residue and (2) 0-80wt.% of mono-, di- or tri-functional free radical-polymerisable monomer which is copolymerisable with (I); and (c) a curing agent for polymerising the binder.

After curing, the prods. exhibit improved mechanical



properties such as compressive strength, abrasion resistance and hardness, and are esp. useful as dental fillings, crown bridge materials, artificial tooth materials, dental cements and bone cements. (13pp)

KURS ★ D21 82206 D/45 ★ J5 6120-610
Photopolymerisable filling material for dentistry - comprises acidic vinyl monomer, polymerisation initiator and another vinyl monomer

KURARAY KK 27.02.80-JP-024559

A96 (A14) (22.09.81) A61k-06/08

27.02.80 as 024559 (5WB)

Compsn. comprises (A) vinyl-type monomer having intramolecular acidic gp, (B) the polymerisation initiator showing maximum absorption at 380-700 nm wavelength and which can catalyse photopolymerisation of (A), and opt. (C) copolymerisable vinyl monomer and opt. (D) filler.

(A) should have an acidic gp. which can react with Ca in the tooth. Examples are phosphoric diester gp, phosphonic monoester group and phosphinic acid gp. (B) is as alpha-diketone of structure = CH-CO-CO-CN = which is pref. used with reducing agent such as thiourea (e.g. allyl thiourea, o-tolylthiourea, etc.), aromatic sulphinate (e.g. sodium benzene sulphinate, sodium p-toluene sulphinate, etc.) etc. (A) and (C) are pref. methacrylic acid derivs. (D) is used in amt. 50-80 w/w% and (A)+(C) 50-20% w/w%. (A) is used in amt. above 0.1 w/w% on (C) and (B) is used in amt. 0.01-10 w/w% on (A)+(C). Material has excellent adhesiveness and can be used as a dental filler. (6pp)

POKK ★ D21 82207 D/45 ★ J5 6120-611
Cosmetic for whitening the skin - contains alpha-lipoic acid and/or its derivs. which inhibit the activity of tyrosinase

POLA KASEI KOGYO KK 26.02.80-JP-023085

E13 (22.09.81) A61k-07

26.02.80 as 023085 (5KB)

Cosmetic contains alpha-lipoic acid and/or its deriv. Alpha-lipoic acid(thioctic acid) and its derivs. are safe cpds. and inhibit the activity of tyrosinase. Cosmetics contg. them can whiten skin more effectively than cosmetics contg. glutathione, etc. as effective ingredient.

Alpha-lipoic acid alkyl esters contg. 1-30C alkyl gp. is pref. used. Those alkyl esters can be prepd. by reacting alpha-lipoic acid with thionyl chloride in the presence of triethylamine and reacting the formed alpha-lipoic acid chloride with alcohol in the presence of triethylamine. (4pp)

KANE- ★ D21 82208 D/45 ★ J5 6120-612
Compsn. for whitening the skin - obtd. by combining aq. dispersion obtd. from ribosome formed from lipid contg. ascorbic acid and vitamin(s) in water

KANEBO KESHO-HIN KK 27.02.80-JP-024673

E19 (22.09.81) A61k-07

27.02.80 as 024673 (5KB)

Cosmetics are the liquid or pasty cosmetics prepd. by combining the aq. dispersion which is obtd. by dispersing the ribosome formed from the lamellar phase composed of the cpd. lipid including ascorbic acid, its derivs. and vitamins in water.

As ascorbic acid ascorbic acid, its salt and its ester can be used in an amt. of above 0.001 w/w% based on the cosmetic. As vitamin, vitamin E such as alpha-tocopherol, tocopherol acetate and tocopherol nicotinate can be used in an amt. of below 67 w/w% in lamellar phase. As cpd. lipid, phospholipid (e.g. lecithin, kephalin, etc.) and synthetic phospholipid (e.g. dipalmitoyl-lecithin, etc.) can be used. (5pp)

KAOS ★ D21 82209 D/45 ★ J5 6120-613
Compsn. for pretreating hair prior to shampooing - contains polymer having cyclic cationic gp. and opt. peptide

KAOS SOAP KK 26.02.80-JP-023151

A96 (22.09.81) A61k-07/06 C11d-03/37

26.02.80 as 023151 (5PW)

Compsn. contains (a) 0.1-5 wt.% of polymer having cyclic cationic group and opt. (b) 0.1-5 wt.% peptide of mol wt. 300-10000 (600-1500) in a wt ratio 10-1/50:1.

The polymer having cyclic cationic group is pref. homo-polymer or copolymer of diallyl quat. ammonium cpd. and vinylpyridine cationic polymer.

Compsn. shows excellent hair-protecting effect, hair-conditioning effect and emollient effect without causing sticky touch to hair. By adding the peptide (b) the above effects can be further increased. (4pp)

LIOY ★ D21 82214 D/45 ★ J5 6120-614
Prod'n. of substance for treating wounds, burns etc. - by solvent extracting Aloe arborescens mill var. natalensis, removing PPTE. and chromatographing extract on active carbon

LION DENTIFRICE KK 26.02.80-JP-023071

B04 (22.09.81) A61k-35/78

26.02.80 as 023071 (33WB)

In the prodn. of the substance from sap or extract of Aloe arborescens mill var. natalensis, the improvement comprise extracting Aloe arborescens mill var. natalensis with water miscible solvent, removing the resultant precipitate and chromatographing the extract on a column of active carbon.

Pref. the sap or extract obtd. by pressing or crushing extracted with a 3-4 fold amt. of water-miscible solvent (e.g. methanol, ethanol, isopropanol, acetone) for 12-24 hours. After removal of the resultant precipitate, the extract is chromatographed on a column of active carbon with water. Pref. the extract has a concn. of 0.5-10 w/w%. The active carbon is used in amt. 10-20 fold the amt. (by wt.) of the active fraction.

The substance can be used as a medicine for external use in treatment of wounds, chaps, cracks, or burns. Also, it can be incorporated into cosmetics or beverages. The substance can be easily formulated, for example, into ointments or lotions. The LD50 value in rats is at least 10000 mg/kg (p.o.). The present process gives the desired substance in high yield relatively simply. (6pp)

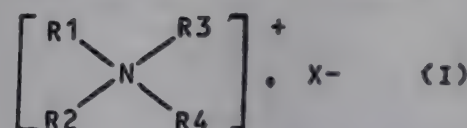
KAOS ★ D21 82317 D/45 ★ J5 6120-788
Aerosol antistatic agent contg. cationic surfactant - and nonionic surfactant, used to treat hair and clothes, does not irritate the respiratory organs

KAOS SOAP KK 29.02.80-JP-025072

A96 E16 F06 (A87) (22.09.81) A61k-07/06 C09k-03/16 D06m-13

29.02.80 as 025072 (136NS)

Agent contains (1) cation surface activator and (2) nonionic surface activator in a wt. ratio of 1:0.1-1:2. (1) is pref. ammonium salt of formula (I) (one or two of R1-R4 are 8-20 C long chain (hydroxy)alkyl gp. and the remainder are 1-3C (hydroxy)alkyl, benzyl or polyoxyethylene gp. having a total addition mole number of below 10; X is halogen atom, 1-2C alkylsulphuric acid gp. or 2-6C hydroxymono or dicarboxylic acid gp.). (I) is e.g. dodecyltrimethylammonium chloride, dioctadecyldimethylammonium chloride. (2) is pref. polyoxyethylene (4) lauryl ether, polyoxyethylene (10) sorbitanlauric ester, dipolyoxyethylene (28) oleylamine. (1) and (2) are pref. dissolved or dispersed in solvent and charged with propellant into a vessel. The agent does not irritate the mucous membranes of the respiratory organs. (8pp)



KAOS ★ D21 82321 D/45 ★ J5 6120-800
Conditioning shampoo compsn. - contg. phosphoric acid ester surfactant and higher fatty acid

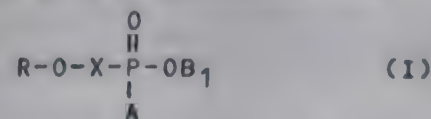
KAOS SOAP KK 29.02.80-JP-024753

A96 E11 (E17) (22.09.81) C11d-01/37

29.02.80 as 024753 (126WB)

Compsn. contains (A) 0.1-10 wt.% phosphoric ester type surfactant of formula (I) (where R is 1-22C opt. branched opt. satd. hydrocarbon residue, fatty acid monoamide having the hydrocarbon residue or H atom; X is a gp. of accumulated residues consisting of 7-70 mole propylene oxide and/or butylene oxide contg. 0-15 mole ethylene oxide unit; A is R-O-X or OB2 and B1 and B2 are each H, alkali metal, 1-3C alkyl subst. ammonium or 1-3C hydroxyalkyl subst. ammonium), and (B) 0.1-15 wt.% higher fatty acid.

The compsn. has improved conditioning effect and imparts to hair excellent feel such as smoothness. (6pp)



POKK ★ D21 82490 D/45 ★ J5 6122-306
Yellowish cosmetic compsn. - prepd. by coating titanium dioxide particles with aluminium hydroxide, mixing with iron (hydr) oxide, etc.

POLA KASEI KOGYO KK 29.02.80-JP-025944

E32 G01 (25.09.81) A61k-07/02

29.02.80 as 025944 (117AS)

Titanium dioxide (pref. of rutile type) particles are coated with aluminium hydroxide opt. with other components, e.g., silica,

zinc oxide, etc., and then mixed with iron hydroxide and/or iron oxide in a proportion of 100:1 to 1:100 pref. 100:3 to 100:12, and baked at 850 to 1200 deg. C, pref. 900 to 1100 deg. C, for 1-20 hrs. in air.

Prod. is a yellowish colour pigmented facial cosmetic with a good hiding power and is also capable of providing a balanced flesh colour to the skin. In an example, 900 pts. wt. rutile-type TiO₂ coated with 5% aluminum hydroxide was mixed with 100 pts. wt. iron hydroxide, baked at 950 deg. C for 20 hrs. in air, cooled gradually in an oven and then ground for 2 hrs. (9pp)

JOHN-★ D21 82641 D/45 ★ J5 6122-900
Shampoo compsn. - includes at least one polyethylene oxide, sodium polyacrylate and polyacrylamide

JOHNSON KK 04.03.80-JP-026184

A96 (26.09.81) A61k-07/06 C11d-03/37

04.03.80 as 026184 (126PW)

A shampoo compsn. contains at least one of polyethylene oxide, sodium polyacrylate, and polyacrylamide, pref. in amt. of 0.0001-3.0 wt. %.

The quality of foams produced by the shampoo is improved. The foams are creamy because of the imparted consistency and lubricity. The strength of the foam film is also improved and stability is increased. Therefore friction between hairs is moderated and the damage of the hair due to the friction is reduced.

Typical cpds. comprises 0.003 pts.wt. polyethylene oxide, 7 pts.wt. salt of lauryl ether sulphate, 2 pts.wt. coconut oil fatty acid diethanolamide, 3 pts.wt. propylene glycol, 0.5 pts.wt. perfume and balance purified water to produce 100pts. wt. compsn. (2pp)

LIOY ★ D21 82782 D/45 ★ J5 6123-910
Foamable dentifrice paste - comprising alcohol sulphate ester or its salt mixed with acyl-amino acid or its salt and dextranase

LION DENTIFRICE KK 05.03.80-JP-027549

E19 (29.09.81) A61k-07/28

05.03.80 as 027549 (15KB)

Dentifrice compsn. comprises a homogeneous blend in which a higher alcohol-sulphate-ester or its salt is mixed with N-long chain-acyl amino acid or its salt in a mixing wt. ratio of 1/2 to 2/1 and the mixt. is blended with dextranase. The N-long chain-acyl amino acid or its salt occupies 0.2-0.5 wt. % of the total dentifrice compsn. and 20-150 wt. % of a nonionic activator is blended with 100 wt. % of the higher alcohol-sulphate-ester or its salt and N-long chain-acyl amino acid or its salt. The higher alcohol sulphate ester or its salt is lauryl-sodium sulphate and the N-long chain acyl amino acid or its salt is sodium deriv. of lauroyl-sarcosine.

A specific paste dentifrice compsn. comprises calcium sec. phosphate (50.0 wt. %) mixed with sorbitol (20.0 wt. %), lauryl-sodium-sulphate (0.7 wt. %), sodium deriv. of Lauroyl-sarcosine (0.5 wt. %) lauric acid-diethanolamide (1.2 wt. %) carraggenan (1.0 wt. %) sodium salt of saccharic acid (0.1 wt. %) perfume agent (1.0 wt. %), dextranase (2000 microgram to the dentifrice) and water.

The paste dentifrice compsn. has good foaming properties nature. (6pp)

TOKA- D21 85334 B/47 = J8 1042-942
Rubber stopper used to measure length on root canal in dentistry - prepd. by vulcanising mixt. of silicone rubber, vulcanised rubber and bismuth trioxide

TOYO KAGAKU KENKYUS 10.04.78-JP-041899

A96 P32 (A26 A60) (08.10.81) *J54133-794 A61c-05/02 A61c-19/04

10.04.78 as 041899 (2NS)

A rubber stopper used in dental treatment consists of rubber obtd. by mixing silicone rubber and vulcanised rubber with bismuth trioxide (Bi₂O₃), and vulcanising the mixt. For example, the compsn. of the rubber consists of 100 pts. wt. of silicone rubber and 10 pts. wt. of Bi₂O₃.

The rubber stopper is used for treating the root canal and is mounted on a reamer for this purpose. The rubber stopper is non-toxic and visible on an X-ray film. Thus the length of the root canal can be easily measured by using the reamer with the stopper. The rubber stopper is easily sterilised and it can be easily cut into a desired shape. (J54133794) (2pp)

MERE D21 90645 X/49 = J8 1043-068
Nacreous pigments based on mica - coated with alternate layers of rutile and tin oxide

MERCK PATENT GMBH 22.05.75-DE-522572

A60 E32 G01 + P78 (G02) (08.10.81) *BE-842-130 C09c-01/36 17.09.75 as 113113 (MR)

Nacreous pigments comprise mica flakes coated with alternate layers of rutile and SnO₂ and included at least the sequence rutile/SnO₂/rutile. The pigments can be used in automobile lacquers, cosmetics and plastics. They have better light and weather fastness than similar pigments containing anatase, and give

strong interference colours. (J51143027) (9pp)

MERE D21 55907 Y/32 = J8 1043-069
Free flowing pearly pigment powder for cosmetics - where the pigment particles are coated with polymers

MERCK PATENT GMBH 29.01.76-DE-603211

A96 G01 (A14 A97) (08.10.81) *DE2603-211 A61k-07 C09c-03/10 26.01.77 as 007616 (004TM)

Prepn comprises individual particles of a flaky pearly pigment (including bismuth oxide-chloride pigments, cyanuric, TiO₂, Al₂O₃), covered by pref 2-25% of a solid polymer (pref polyvinyl pyrrolidone).

Used in cosmetic prepn. The shine and luminosity are less sensitive to mechanical stress than other pigment prepn. The prep is a free-flowing powder. (J52093440) (6pp)

SAUE D21 76135 Y/43 = J8 1043-070
Soluble collagen prodn. for use in cosmetics - from placental extraction residues

SAUERBRUCH BOTTGER KG (BOTT) 17.04.76-DE-616939

A11 (08.10.81) *DE2616-939 + A61k-07/48 C09h-03 16.06.76 as 070921 (367MR)

Placental extraction residues constitute a readily available staring material which is relatively free of impurities and is normally discarded as useless.

The soluble collagen is pref obtd by washing the placental residue with a dil buffered NaCl soln at 0-3 deg C and then extracted with a more conc. neutral salt (esp NaCl) soln for 2-6 days. The extract is then treated with NaCl to salt out the collagen. The residue remaining after extraction can be further extracted with citrate buffer at 0-3 deg C for 1-4 days to isolate acid-soluble collagen, which is out as above.

The collagen product is pref dissolved in a buffer soln. with a pH less than 7 (esp a placental extract) contg a preservative, to produce a storage stable skin-care product. (J52128400) (4pp)

ARAI/ D21 75280 Y/42 = J8 1043-080
Toiletries, e.g. soap, contg. freeze dried egg powder - which imparts properties of raw egg without gelatinous character

ARAI K 08.03.76-JP-024120

(08.10.81) *J52108-407 C11d-03/38 + C11d-09/40 08.03.76 as 024120 (58JB)

Granular egg powder obtd by freeze drying has the activity of raw egg but lacks the gelatinous nature. When combined to form toiletries, uniform compsns may be obtd. When contained in a soap, after washing, a film of nucin is left on the skin. (J52108407) (3pp)

OREA D21 04114 A/03 = J8 1043-260
(N)-Mesylaminoalkyl amino alkyl phenols - used as colour couplers in oxidn. hair dyeing compsns.

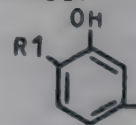
L'OREAL SA 09.09.76-FR-027125

E24 (12.10.81) *BE-856-628 + C09b-53 09.09.77 as 108006 (597TM)

Mesylanimo alkylamino alkyl phenols have formula (I): (where R1 is 1-4C alkyl R2 is H or 1-4C alkyl and n is 2 or 3). The cpds. are used as couplers in dyeing compositions for keratinous fibres.

The compsns. are used as couplers with at least 1 oxidn. base, partic. in hair dyeing compsns. The cpds. provide a new range of couplers giving interesting dyeing results, the dyes being light and weather stable and the cpds. innocuous.

The cpds. are prepd. by reacting the aminophenol cpd. with a bromoalkylamine, followed by hydrolysis to form the O,N,N' trimesyl cpd., followed by hydrolysis to remove two mesyl gps. (J53033223) (12pp)



NH-(CH₂)_n-N(R₂)-SO₂CH₃ (I)

SHIS D21 44987 B/24 = J8 1043-264
Hydrophobic powder prodn. for use in cosmetics, plastics etc. - by grinding mixt. of e.g. mica and metal hydroxide then forming crosslinked polysiloxane coating on powder

SHISEIDO KK 12.10.77-JP-122214

A60 G01 H07 (12.10.81) *J54056-083 + C09c-03/12 12.10.77 as 122214 (96AT)

Process is effected by grinding mixt. consisting of particles of mica, kaolin, talc, iron oxide, titanium dioxide, mica covered with titanium, silicic acid, ultramarine, prussian blue and/or zinc oxide and metal hydroxide(s) and allowing methylhydrogenpolysiloxane oil to crosslink and polymerise on the surface of the powders.

The hydrophobic power may be used in cosmetics, plastics magnetic recording tapes, paints, inks, lubricants, etc.

In an example, 97.2 pts. of mica powders were ground with

pts. of zinc hydroxide in vibration ball mill for 10 min., and added 2.8 parts of methylhydrogenpolysiloxane oil of SiH equivalent 77 and ground at ordinary temp. for 30 min. The resulting mica powders were odourless and exhibited strong hydrophobic properties. (J54056083) (8pp)

SNKM D21 75605 B/42 = J8 1043-377
Cast alloys with low m.pt. for mfg. dental prostheses - contg. nickel, chromium, copper, manganese, and germanium, and requiring only simple melting and casting plant

SANKIN IND CO LTD 05.04.78-JP-040698
M26 + P32 (12.10.81) *DE2913-779 C22c-19/05 + A61k-06/04
05.04.78 as 040698 (1144TM)

The alloy contains by wt. 7-20% Cr, 15-35% Cu, 15-35% Mn, 0.5-15% Ge, 0.1-3% Al and 0.1-3% of a deoxidant such as a calcium-silicon alloy; the remaining constituent is nickel. The pref. alloy also contains at least one of the following elements in the amts. shown: 0.5-15% gallium, 0.5-10% niobium, and/or 0.5-5% zirconium; and the alloy is used e.g. for casting dental crowns or bridges.

Alloys conforming with the above composition can be melted by simple appts., e.g. using a mixt. of town gas and O₂ or air, so the expensive melting plant needed with conventional alloys possessing a higher m.pt. is not required; and simple mould materials, e.g. gypsum, can be used. The alloys can also be easily ground and polished. (J54132423) (3pp)

ANZA/ D21 64005 Y/38 = J8 1043-441
Negative mould surface treatment compsn. for dental treatment - comprising prim. satd. fatty acid amine cpd. and solvent

ANZAIK 23.01.76-JP-006409
E16 (13.10.81) *J52090-186 + A61k-06/10
23.01.76 as 006409 (86DH)

Compsn. for surface treatment of a negative mould for dental treatment consists of at least 1 16-20C prim. satd. fatty acid amine cpds. and a solvent. The concn. of 16-20 prim. satd. fatty acid amine is 1.5-20% wt.%. As a 16-20C prim. satd. fatty acid amine cpd., hexadecylamine, ethylcetylamine, diethylhexadecylamine or a mixt. thereof is used. As a solvent, chloroform, trichloroethylene, dichloroethylene, ethanol, methanol, ethyl ether, isopropyl ether, acetone, triethylamine or a mixt. thereof is used.

In an example, a compsn. consists of 78.4 wt.% trichloroethylene, 17.6 wt.% ethanol, 2.0 wt.% hexadecylamine and 2.0 wt.% ethylcetylamine. The compsn. is coated on a negative mould by a brush and dried at 24 deg.C for 3 mins. to form a film. The compsn is coated again to form a firm film on the negative mould. This film serves as a mould releasing agent. A plaster cast is easily removed from the negative mould. (J52090186) (2pp)

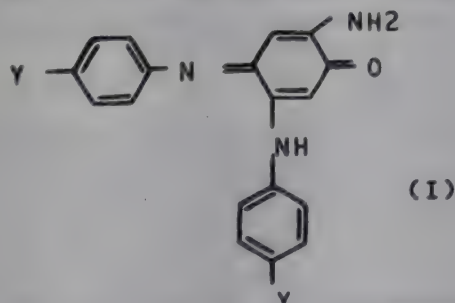
OREA D21 73619 B/41 = US 4295-848
Oxidation dye compsns. for hair dyeing - contg. ortho-and para-type precursors

L'OREAL SA 06.04.78-FR-010278
E24 (20.10.81) *BE-875-343 + C07c-50/80 C07c-119/12
29.10.80 as 201505 (5.4.79-US-027363) (931AT)

Trinuclear cpds. or their salts have formula (I), where Y is NR₁R₂ and R₁ and R₂ are each alkyl, mesylaminoalkyl, piperidinoalkyl or hydroxyalkyl, all contg. 1-6C alkyl moieties.

Pref. R₁ and R₂ are hydroxyethyl, and (I) is used in a compsn. with a suitable carrier for dyeing keratin fibres. (I) is prepd. by reacting 1 mol. of the corresp. aminoaniline with 1 mol. of ortho-aminophenol in an oxidising alkaline medium.

The prod. is esp. used for hair dyeing, other oxidative dyestuff precursors of the para-type and of the ortho-type are used, where 1 or more para-type precursor is an aromatic diamine or a specified bis-condensed precursor, and 1 or more ortho-type precursor is an o-aminophenol, o-diphenol or o-phenylenediamine (deriv.) (21pp)



PETR/ ★ D21 83384 D/45 ★ US 4295-985
Removal of chlorine from hair and skin - with soaps and shampoos contg. urea and alkali thiosulphate

PETROW HG 01.05.80-US-145681 (07.06.78-US-900601)
E34 (E16) (20.10.81) C11d-07/32 D06l-03/10
01.05.80 as 145681 (+ 25.10.79-US-088144) (478TM)
Toilet soap compsn. for cleansing and removing retained Cl₂

from human skin and hair after immersion in Cl₂-contg. H₂O, consists of a conventional toilet soap contg. 2-15% by wt., (of soap) of an H₂O-soluble, non-toxic compatible Cl₂-reducing agent (I). (I) consists of a mixt. of 50-30% by wt. urea (II) and 50-70% by wt. alkali metal thiosulphate (III). Liq. shampoos similarly contain 0.4-6% by wt. (of compsn.) of (I) (in this case (II) and opt. (III)).

Amt. (I) used is at least 3 times the stoichiometric amt. required to reduce Cl₂ to Cl⁻. Pref. (III) is Na₂S₂O₃ used with soaps and shampoos of inherent pH 5-11. (6pp)

SATC/ ★ D21 83422 D/45 ★ US 4296-064
Making bars from soap chips - by melting in compartmented rack removable from water container with immersion heater

SATCHER AT 03.07.80-US-165604
(20.10.81) B29c-01
03.07.80 as 165604 (006HM)

The water container with its electric immersion heater has an returned flange from which is suspended the soap-chips rack, divided by walls into four compartments.

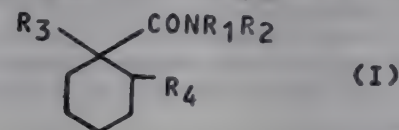
The heated water melts the chips to form soap bars, removable after cooling by inverting the rack. (3pp)

WILK D21 67744 U/45 #US 4296-093
Alkylcyclohexylcarboxamides - and physiological cooling compsns

WILKINSON SWORD LTD 18.04.72-GB-017916 (16.04.73-US-351356)
B05 E15 + P15 (20.10.81) *DE2317-539 A61k-09/68 A61k-31/16
04.02.80 as 118205 (982HM)

Personal care prod., an ingestible prepn., a pharmaceutical prepn. or tobacco-contg. consumer prod., uses, as cold receptor stimulating ingredient for the nervous system of the surface tissues of the body, an effective amt. of a cyclic carboxamide of formula (I) (where R₃ is 1-5C alkyl and R₄ is H or 1-5C alkyl with the proviso that R₃-4 together provide 1-8C; and R₁-2 are each H, 1-5C alkyl or 1-8C hydroxyalkyl and together provide a total of 0-8C. When R₁ is H, R₂ may also be up to 6C alkylcarboxylalkyl).

The prod. is a toilet or cosmetic lotion, e.g. shaving foam, dentifrice or mouthwash, a chewing gum or a cigarette. (8pp)



KYOX D21 31645 C/18 #US 4296-094
Drug for preventing tooth decay - contains hydrotalcite deriv.

KYOWA CHEM IND CO 11.09.78-JP-111587 (02.06.80-US-155165)
B06 E33 (20.10.81) *J55038-328 A61k-07/16
02.06.80 as 155165 (982HM)

Dental cleaning compsn. comprises about 0.01-30 wt.%, based on the compsn. of a hydrotalcite cpd. of formula

$Mg(1-x)Alx(OH)(2+x-ny)(An-y)mH_2O$ (I)
and at least one dentally acceptable carrier or diluent selected from polishing agents, moisture-retaining agents, binders and foaming agents. In (I), A is an anion of valency n; x is 0-0.5; y is 0-0.5; and m is 0-2.

Specifically A is a carbonate or fluoride ion. Pref. the sec. particles of (I) have an average particle size of up to about 100 microns. The compsn. is used in the form of an aq. suspension for gargling or fluid pressure washing. (4pp)

BEIE D21 06142 B/04 = US 4296-095
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - contg. lysine ester(s) with 4-20C alcohol(s) e.g. lysine palmityl ester

BEIERSDORF AG 21.09.77-DE-742411
B05 E16 (20.10.81) *DS2742-411 A61k-07/22 + C07c-101/24
20.09.78 as 944195 (937MR)

Novel compsn to prevent formation of dental plaque and tartar on teeth (I) contains 0.1-20 pref 1-5 wt % of total compsn of a cpd of formula (I),

$H_2N.CH_2(CH_2)_3CH(NH_2)COOR.Xn$ (I)
where R is opt branched 14-18C alkyl or alkenyl, pref myristyl, palmityl, stearyl or oleyl; X is gp which renders (I) into a salt, pref hydrochloride, hydrofluoride, gluconate, monoacetate, phosphate or sulphate; n is 0-2 pref 1 or 2.

(I) is used with a carrier suitable for applying to teeth or rinsing the mouth (4pp)

COLG D21 80741 C/46 = US 4296-096
High viscosity dentifrice compsn. contains anionic polyelectrolyte - surface treated by polyvalent cation, as gelling agent

COLGATE PALMOLIVE CO 25.03.80-US-133706 (05.07.79-US-054779)

A96 (20.10.81) *BE-884-181 A61k-07/16

25.03.80 as 133706 (945WB)

Dentifrice toothpaste or gel contains a normally water-insol. polishing agent, up to 89.5 wt.% water and, as sole essential humectant and gelling agent, a water absorbent anionic polyelectrolyte polymer.

The polymer is a polyacrylic acid ionically complexed with a polyvalent metal cation (Al, Zr, Fe or Zn) at pH 2.0-8.5. At least 90% of the polymer particles have particle size larger than 2 microns and the compsn. contains 0.5-20 wt.% of the polymer. Additional humectant and/or gelling agent may be present to provide rheological modification.

The compsn. has viscosity 50,000-420,000 cPs so that it is not liq. or runny but is not difficult to extrude. (7pp)

HERS/ D21 21724 D/13 = US 4296-104
Pharmaceutical and cosmetic compsns. contg. DMSO - in combination with urea, ethanol, acetamide, sodium and/or potassium chloride to minimise DMSO side effects

HERSCHLER R J 30.08.79-US-071072

B05 C03 E16 (B06 E17 E34) (20.10.81) *DE3032-481 A61k-31/10 + A61k-33/14

30.08.79 as 071072 (945WB)

Dimethyl sulphoxide is administered to a host in combination with urea and/or ethanol. The side effects of malodorous breath and skin reactions associated with DMSO admin. are thereby eliminated.

The administered compsn. may also contain acetamide, NaCl, KCl or water wt. ratio of urea to DMSO pref. exceeds 1:99 (1:9). A specific compsn. contains 19g DMSO, 9 g urea, 1 g NaCl and at least 6g water.

The compsns. are more rapidly absorbed into the tissue and provide new therapeutic effects DMSO/ethanol compsn. given i.v. reduces red blood cell lysis and DMSO/urea compsns. softens nail cuticle and epidermal thickenings to ease removal. Addn. of DMSO to urea NaCl and/or acetamide solns. reduces their toxicity to fish. (12pp)

TOMI/ D21 40959 B/22 #US 4296-209
Spongy prosthesis cement for dentistry and surgery - contains poly:methyl methacrylate binder, calcium carbonate blowing agent and sodium phosphate resorbant

TOMIC D 23.11.77-DE-752297 (17.11.78-US-961346)

A96 P32 (A14 D22) (20.10.81) *EP---2-064 + C08k-03/10 C08k-05/11 C08l-33/12

26.03.80 as 133973 (+ 17.11.78-US-961346) (931AT)

A cement mixt. for use in surgical and therapeutic procedures in animals comprises 70 wt.% of polymethyl methacrylate as a cementitious substance, 20 wt.% of CaCO₃ as the effervescent medium, 10 wt.% of Na₂HPO₄·12H₂O as the reabsorptive substance, and phosphoric acid for activating the effervescence of the medium.

The cement is mixed and applied to an animal bone or solid tissue, and the effervescence and reabsorptive substance will produce voids in the cement before curing the cement in situ.

The Spongiosacement prod. is esp. used for cementing in place fractured and broken bones, roots of teeth, and prosthetic devices. (2pp)

WILK D21 67743 U/45 = US 4296-255
Alkylcarboxamides in cooling compsns. - acting on skin and mucous membranes

WILKINSON SWORD LTD 18.04.72-GB-017914

B05 + P34 (20.10.81) *DE2317-538 C07c-101/30 C07c-103/12

25.04.80 as 143948 Div.ex 4230688 C.I.p. 4133679 (+ 16.4.73, 14.2.77, 7.5.79-US-351357, 768219, 036662) (924RH)

Monosubstd. aliphatic acyclic carboxamide derivs. of formula R₁R₂R₃C-CONHR' (I) are described. In (I) R₁-3 are each 1-5C opt. branched alkyl and together provide a total of at least 5 C atoms, and R' is 1-5C alkyl, 1-8C hydroxy-alkyl and up to 6C alkoxy carbonylalkyl. Specific cpds. are N-ethyl-2, 3-dimethyl 2-isopropyl butanamide and N,2,3-trimethyl-2-isopropyl butanamide.

The cpds. have a physiological cooling action on the skin and on the mucous membranes of the body, partic. on the mucous membranes of the nose and bronchila tract. They are added to edible or potable compsns., toiletries, medicaments, tobacco preparations, water-soluble adhesive compsns. for postage stampsetc. (9pp)

KENO- ★ D21 83530 D/45 ★ WP 8103-009
Storing two ingredients of dental amalgam - in legs of tube folded at mid point to form V/shape

KENOVA AB 23.04.80-SE-003067

Q31 Q34 (29.10.81) B65b-29/10 B65d-81/32

23.04.81 as SE0120 (295BZ) (E) US3478871 US4023675 N(AU CH)

A length of flexible tubing is folded about a transverse line at its mid-point, and the two legs are bent so that the tube assumes a V shape. A first ingredient of a dental amalgam is placed in one leg of the tube and the second ingredient is placed in the other leg. The fold line at the centre of the tube maintains the two ingredients apart until the amalgam is required. The outer ends of the legs are sealed.

The amalgam is prepared for use by straightening the tube to release the fold, and then shaking the tube axially to mix the ingredients.

The mercury ingredient remains sealed from the atmos. both during storage and preparation of the amalgam. The transverse lateral seal produces no debris when the tube is straightened prior to mixing the amalgam. (17pp)

See Also

D13 GB 1601658	D13 GB 2074761	D23 DD 150051
D23 EP--38480	D23 GB 1601859	D23 US 4296137

D22: BANDAGES; DRESSINGS

SCOP ★ D22 81684 D/45 ★ BE-889-315
Non-woven web, for baby napkins - has controlled fusion bonding, to improve tactile properties and wet strength

SCOTT PAPER CO 20.06.80-US-161270

F04 (16.10.81) D04h

19.06.81 as 889315 (1359AT)

A non-woven web, for use in babies' disposable napkins, contains predominantly thermoplastic fibres, and is pre-heated by e.g. infrared rays on one side only before passing between nip rollers for bonding. One roller is of metal and patterned, and is heated more than the other roller, which is smooth and resilient. The side of the web away from the pre-heating device is presented to the patterned roller, which is capable of fusion bonding the thermoplastic fibres. Autogenous fusion bonding occurs, which only partially penetrates the web thickness to the pre-heated side, where most of the bonds are effected by fibre sticking, as distinct from melting.

The thickness of fusion bonds is controlled so that the tactile properties of the pre-heated side of the web are not unfavorably changed. A consistent coherence is promoted in the web, and the wet strength is improved in comparison with known prods. (27pp)

KAOS ★ D22 81686 D/45 ★ BE-889-316
Absorbent article, e.g. sanitary towel - has upper absorbent layer with specified density in wet or dry state under load, and lower absorbent layer contg. water absorbent polymer

KAO SOAP KK 23.06.80-JP-084995

A96 F07 P21 P32 P34 (16.10.81) A41b A61f A61l

22.06.81 as 889321 (513AT)

Absorbent article comprises a first upper absorbent layer having a density in the dry and the wet state of less than 0.045 g/cub cm. measured under a load of 35 g/sq.cm and having a density 15-50 g/sq.cm; and a second, lower absorbent layer onto which fixed a water-absorbent high polymer. The first layer is pre-comprised of 30-60 wt.% hollow polyester fibres (esp. 6-12 denier) and 30-50 wt.% heat-fusible fibres (esp. ca. 3 denier). The absorbent polymer is pref. capable of absorbing at least 10 times its own wt. of water, and is esp. polyacrylic acid powder mounted between the top and bottom sheets.

The articles are esp. useful for absorbing body fluids, esp. sanitary towels. The articles are cheap, lightweight and capable of absorbing large amt. of fluids without feeling wet. (20pp)

DSIL/ ★ D22 D/45 ★ BR 8007-541
Protective paste mfr.
DA SILVA J C 19.11.80-BR-007541
(20.10.81) A61k-07/40

BINT ★ D22 81743 D/45 ★ DE 3014-123
Scleroprotein e.g. collagen, keratin or elastin transplants prodn. -
involving treatment with glycerol or polyethylene glycol to
improve biological stability

BRAUN MELSUNGEN AG 12.04.80-DE-014123
A96 B04 P32 (29.10.81) A61f-01 A61k-37/12

12.04.80 as 014123 (280MR)

In a new procedure for the prodn. of scleroprotein transplants with improved biological stability from raw human or animal scleroprotein by treating with water, treating with hydrogen peroxide, defatting, washing and sterilising, the scleroprotein is treated with glycerol or polyethylene glycol after washing but before drying.

The glycerol or polyethylene glycol treatment gives improved resistance to biological degradation. The transplants are soft, and do not require rehydration before use. The prod. is transparent so that e.g. in brain operations the biological fluids and brain can be viewed through the transplantate.

The glycerol or polyethylene glycol (pref. molecular weight 400-2000) is pref. used in the form of an aqueous 5-50% solution. When the scleroprotein is human dura, it is particularly advantageous to use a 20-40% (esp. 30%) soln. of glycerol in water. (10pp)

DYNN ★ D22 81746 D/45 ★ DE 3014-291
Biocide for PVC compsns. - comprises mono- or di:alkyl tin cpds.
or inorganic divalent tin sales

DYNAMIT NOBEL AG 15.04.80-DE-014291
A60 E12 (A14) (29.10.81) C07f-07/22 C08k-05/56

15.04.80 as 014291 (952BZ)

Biocide comprises diorgano- or monoorganotin cpds. of formula R_2SnX_2 or $RSnX_3$ (where R is a hydrocarbon gp. and X is an (in)organic residue) or inorganic divalent tin salts.

Also claimed is a soft PVC moulding compsn. contg. light-, weather- and heat stabilisers, opt. conventional additives such as dyes, fillers, lubricants etc. and tin biocides as above.

The tin cpds. are (practically) non-toxic and increase the effect of Ba-Cd or Ca-Zn stabilisers in PVC compsns. The PVC compsns. can be used as sealing strips for swimming pools, cold water containers, agricultural films. (20pp)

HENK ★ D22 81753 D/45 ★ DE 3014-765
Amino hydrohalide antimicrobials - for use as surface
disinfectants with a long lasting effect

HENKEL KG AUF AKTIEN 17.04.80-DE-014765
C03 E16 (29.10.81) A01n-33/02 A61k-07 C11d-03/48

17.04.80 as 014765 (1401NS)

Aminohydrohalides (I) of formula $(R_1)(R_2)2N.HX$ can be used as antimicrobials (where R_1 is 10-18C alkyl in which one $-CH_2-$ bridge is opt. replaced by an ether bridge, or R_1 is a gp. of formula $(R_3)-CHOHC(R_4)-$, R_2 are each $-CH_2CH_2OH$, $-CH_2CH(OH)Me$, or $-CH_2CH(OH)CH_2OH$; R_3 is 1-18C alkyl; R_4 is H or 1-17C alkyl, provided the sum of C atoms in $R_3 + R_4$ is 8-18; X is Cl, Br or I).

Pref. R_1, R_3 and R_4 are straight chain alkyl gps. Pref. (I) is used in formulations which contain 0.1-50 wt.% (I), based on the total amt. of the antimicrobial formulation. Pref. (I) is used for preservation in an amt. of 0.1-2 wt.%, based on the total amt. of the substance to be preserved.

(I) have very good microbistatic and microbicidal properties when used in surface disinfection. Not only do (+-) inhibit microbe growth, they also kill germs with in a technically useful time period. (I) have an excellent residual effect and repopulation and multiplication of microbes on the treated surfaces is hindered for long periods. (15pp)

VERE ★ D22 81799 D/45 ★ DE 3015-730
Absorbent feminine hygiene tampon - contg. alkali
carboxy:methyl-cellulose staple fibre absorbent radially
compressed with liq. permeable sheath

VER PAPIERW SCHICKEDANZ 24.04.80-DE-015730
A96 P32 (29.10.81) A61f-13/20

24.04.80 as 015730 (200AT)

Tampon for female hygiene consists of a spirally coiled fibre-fleece absorbent surrounded by a cylindrical liq. permeable sheath and radially compressed.

(a) The absorbent consists partly or entirely of alkali carboxymethyl-cellulose fibres, which are water-insoluble at body-temp. and have ave. degree of substit. 0.05-1, titre 4-10 dtex, staple length 12-100 mm and strength at least 20 cN/tex. (b) The sheath, which is cylindrical in unpressed condition, consists of non-elastic fibres.

On wetting with physiological fluids, the fibres resume their

vol. without exerting undue pressure on body cavity. (9pp)

RATH/ ★ D22 81806 D/45 ★ DE 3015-779
Surgical swab - with marker thread between muslin layers for
X-ray detection

RATH E 24.04.80-DE-015779 (00.00.78-DE-823382)

P32 (29.10.81) A61f-13/20

24.04.80 as 015779 Add to 2823332 (39RH)

Parent patent described a swab for use during surgical operations consisting of woven muslin strips in several layers which are turned with the ends through an internal rubber ring. In this addn., a marker thread is loosely laid between the outside and the adjoining inside layer and is also threaded with its ends through the rubber ring.

This thread is pref. made of cotton and barium sulphate so that it can be traced by X-rays if left accidentally behind after an operation. The thread is dyed by indanthrene for visual distinction, and the rubber ring is also detectable by X-rays.

This is a low-cost way of marking such swabs. (8pp)

STEI/ ★ D22 81807 D/45 ★ DE 3015-787
Cooling pad or bandage for therapeutic or diagnostic use -
controls cooling of flow medium to obtain required heat loss from
skin surface

STEINGRAFF P 24.04.80-DE-015787

S05 P32 (29.10.81) A61f-07/02

24.04.80 as 015787 (1167DH)

The pad or bandage has an internal flow path coupled to an external refrigeration device for cooling the flow medium. The temp. and/or the heat loss of body area is measured and the cooling is automatically switched off to maintain the heat loss at a required value. The latter may be obtd. via a reference temp. provided by a temp. measuring electrode applied to an equivalent body zone. The max. difference between the temp. of the latter and the temp. of the flow medium may be limited to between 1 and 10 deg.C.

Pref. the pad or bandage has a polymer flow tube fed in a zig-zag path across the surface of a flexible web, both ends fitted into a plastic terminal piece for connection of the feed and return lines. A thermoelement measures the temp. of the flow medium at the beginning and end of the flow path through the tube.

The pad or cuff can be used to cool the area around an abrasion etc. to promote healing and soothe pain. (22pp)

ABBO D22 49319 T/81 = DS 2200-940
9-substd erythromycin a and b oximes - with antibiotic activity

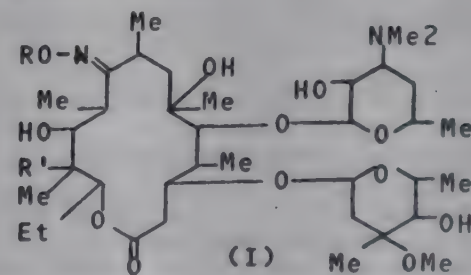
ABBOTT LABORATORIES 11.01.71-US-105664

B03 (29.10.81) *DE2200-940 C07h-17/08

10.01.72 as 200940 (47RH)

Erythromycin-A and -B 9-(O-substd.)oximes of formula (I) are new. In (I), R is 1-4C alkyl and R' is H or OH. Prepn. of cpds. (I) comprise condensn. of the parent antibiotics with O-alkyl-hydroxylamines of formula $RONH_2$ or their salts in the presence of a base, in an inert solvent at up to reflux temp. for about 2-12 hr.

The prods. are removed from the blood serum less rapidly than the parent antibiotics. PS (3pp)



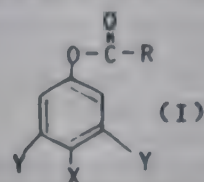
CIBA D22 15066 C/00 = DS 2960-538
3,4,5-Tri:halo-phenol ester(s) - antimicrobials to protect materials
against attack by bacteria, algae, fungi, and from rotting and
mould

CIBA GEIGY AG 08.08.78-CH-008473

C03 E14 F06 P63 (F09) (29.10.81) *EP---8-061 A01n-31/08 B27k-
03/40 C07c-69/63 C08k-05/13 D05m-13/20

30.07.79 as 960538 Based on EPG008061 (047AT)

Halogenated phenolic esters of formula (I) are new. X is Cl or F, and Y is Br; or X is Br and Y is Cl; and R is H, 1-22C alkyl or alkenyl, $PhCH_2$ (opt. with Cl or Br substituents), or Ph (opt. with 1-4C alkyl or alkoxy, COOH, Cl and/or Br substituents).



(I) are prepd. by the usual methods and used as bactericidal and fungicidal agents, esp. for protection against rot and mildew in wood, wood prods., organic materials and textiles; e.g. cpds. (I) are applied to textile materials in amounts of 100-10,000 ppm, pref. 200-5000 ppm. (based on the mass of fabric). (18pp)

BAXT D22 15658 D/10 = EP --38-339
Preparing sterile intravenous feed for hyperalimentation of patient - by mixing ingredients solns. via microporous bacterial filter

BAXTER TRAVENOL LAB 01.11.79-US-090235
B07 P34 Q39 (28.10.81) *BE-885-877 B01d-13 B01d-31
29.09.80 as 902028 Based on WP8101248 (448AS) (E) US3199511
US3298597 US3635798 US4118646 US4177149 E(AT CH DE FR GB LI SE)

A sealed aseptic container with a sealed connecting passage terminating in a coupling box of which part of the wall is opaque, thermoplastic material and the remainder is transparent. The box engages a matched coupling box so that the opaque thermoplastic panels of the two boxes are in face-to-face contact.

The connected boxes are exposed to radiant energy, partic. infra-red radiation, which fuses together the thermoplastic panels and simultaneously opens a passage between the two boxes. The connecting passage is still closed by a diaphragm at the container end of the passage. A needle inside the passage can be manipulated from the exterior to perforate the diaphragm and establish communication between the container and the coupling boxes passage.

The outer coupling box is pref. attached to a sterile pouch in which the contents of the container mix with a liq. ready for administration, e.g. by intravenous injection to a patient. Used for sterile mixing of additive, e.g. antibiotics, for branch injection into a parenteral infusion line. Perfectly sterile mixing is achieved in a pouch which can be retained and ready for instant use intravenous transfusions, esp. during surgical operations. (20pp)

INTE-★ D22 81872 D/45 ★EP --38-416
Disinfectants with improved potency and spectrum of activity - contg. microbiocidal agents in combination with bipolar solvent systems

INTERMEDICAT GMBH 11.03.80-CH-001882
C03 (28.10.81) A01n-25/02
07.03.81 as 101680 (280JB) (G) No-Citns. E(AT BE DE FR GB IT LU NL SE)

New disinfectants contain a combination of microbiocidal substances and bipolar solvent systems. Combination of microbiocidal systems with bipolar solvent systems gives a broader spectrum of activity at lower active substance concns because the water-film necessary for microbiocidal substance is maintained by the bipolar solvent system.

Pref bipolar solvent systems are those having a low vapour pressure and low evapn. The bipolar solvent systems display water-retaining capacity in order to retard drying out of the surface undergoing disinfection.

Bipolar solvent systems are substances and mixt displaying solubility in both plar and non-plar media. They include aldehydes, ketones, alcohols, ethers, carboxylic acids, esters, polyglycols, nitriles, thio cpds and nitrogen cpds.

Typical microbiocidal cpds include glutaraldehyde, isopropanol, 2-bromo-2-nitro-1,3-propanediol, n-dodecylamine, dedecyldimethyl benzylammonium chloride, dodecylbis(aminaethyl)-glycine, alkali hypochlorites and phenol. (18pp)

STEI D22 79958 D/44 = EP --38-444
Odorous substance removal from effluent air - e.g. in food industries by scrubbing with water contg. nonionic and or ampholytic cpds.

STEINECKER A MASCH GMBH 19.04.80-DE-015220
E19 P34 (28.10.81) *DE3015-220 + B01d-53/34
31.03.81 as 102438 (200AT) (G) No-Citns. E(AT CH GB LI NL)
Odorous substances are removed from the outgoing air of brewery- and malting-, coffee roasting-, fish processing- and soup flavouring plant and from works for disposing of animal bodies, etc., by scrubbing with sprayed-in washing water contg. pref. 0.1-3 (0.5-1.2)wt.% added (A) nonionic cpds. and/or (B) ampholytic cpds.

The nonionic cpds. (A) can be (A1) partial esters of polyalcohols, e.g. glycerol mono- or di-stearate and -oleate, sorbitol monostearate and -oleate, or (A2) ethylene oxide- or propylene oxide adducts with fatty acids, fatty alcohols, fatty amines, partial fatty acid esters of polyhydric alcohols, esp. of glycerol and sorbitol, alkylphenols, water, i.e. polyalkylene glycols. The ampholytic cpds. (B) can be (B1) long-chained substd. aminoacids, e.g. N-alkyl-di-(aminoethyl)- glycine, N-alkyl-2-aminopropionate or (B2) betaines, e.g. (3-acylaminoethyl)-dimethyl-glycine and alkyl-imidazolium betaines.

The process is non-polluting. (A) and (B) can be decomposed

biologically and can be discharged with waste water. Smelly substance content of waste air is lowered appreciably, e.g. to 7.4% as opposed to 66% without adding 1% polyethylene glycol-sorbitan laurate to washing water for scrubbing mashing-pan vapours. (15pp)

BIOT-★ D22 82032 D/45 ★FR 2479-002
Adhesive contg. pressure sensitive adhesive and a hydro-colloid - plus an aluminium silicate used medically, esp. in stoma

LABS BIOTROL SA 01.04.80-FR-007346
G03 P34 (02.10.81) A61l-15/06
01.04.80 as 007346 (597AT)

The compsn. is composed of at least one pressure sensitive adhesive, at least one hydrocolloid and opt. reinforcing substances is characterised by contg. at least one hydrated aluminium silicate with exchangeable hydroxy gps.

The pref. silicate is a bentonite or a montmorillonite. The pref. amt. of silicate is 15-50%, esp. 15-25%. As at least a part of the hydrocolloid a mixt. of carob and carraghesin is pref., esp. contg. 30-80%, pref. 40-80% carraghesin. The pref. amt. of this mixt. in the adhesive is 20-50%, esp. 20-35%. The adhesive is esp. used in stoma and fistula surgically for use on strips on the abdominal wall used to fix recovery containers for internal liqs. The replacement of part of the hydrocolloid/adhesive by the silicate as well as reducing the cost, makes the adhesive more flexible and resistance to putrescence. (8pp)

EAKI/★ D22 82088 D/45 ★GB 1601-735
Surgical drainage bag - is fibrous surfaced laminate in area contacting patients skin to prevent adherence to skin

EAKIN T G 31.05.78-GB-025120
A96 P32 (04.11.81) A61f-05/44
31.05.78 as 025120 (1358DH)

Flexible bag has an inlet to fit over a stoma, and a fibrous surface of laminate where it contacts the patient's skin. The laminate is a liq.-impermeable plastics sheet and fibrous sheet adhered together with the fibrous sheet remaining absorbent and preventing the laminate from adhering to the skin.

The fibrous sheet is pref. of 20-70 g/m.sq. tissue paper which is adhered to the plastics by a continuous 1-20 g/m.sq. coating of aq. acrylic emulsion using a laminating pressure of 5-35 lb/in.sq. The plastic sheet is e.g. plasticised PVC, polyethylene or polypropylene. The laminate prevents a film of sweat from forming between skin and bag. (8pp)

MINN D22 87405 A/38 = GB 1601-92
Indicator for steam and formaldehyde disinfection - contg. supported dye which irreversibly changes colour on exposure e.g. contg. red (BE 11.9.78)

MINNESOTA MINING CO 11.03.77-GB-010484
E14 S03 W05 P34 P85 (04.11.81) *DE2810-542 G01n-21/78
10.03.78 as ----- (924TM)

Indicator for use in the steam-formaldehyde sterilisation process, comprises a substrate carrying a dye which will undergo a colour change when exposed to HCHO vapour in the presence of low temp. steam. The dye is a cpd. having one or more azo linkages, one or more prim. or sec. amino gps. and opt. one or more sulphonic acid gps.

The dye is carried on the substrate in an environment which will establish a pH of 4 to neutral under the sterilisation process. Pref. the dye is longo red. Pref. a buffer is mixed with the dye, esp. K hydrogen phthalate, Na hydrogen tartrate or a mixt. of trisodium citrate and citric acid.

Pref. the dye is printed, coated or impregnated on to the substrate in the form of a characteristic pattern, e.g. repeating strips or bars extending across the width of the strip. Excellent results are obtd. using longo red. (6pp)

ICIL★ D22 82123 D/45 ★GB 2074-4
Water-dispersible concentrate contg. iodo-alkyne carbamate(s) for use as fungicide in aq. paint systems

ICI AMERICAS INC 28.04.80-US-144313
A82 C03 G02 (A60) (04.11.81) A01n-25/04 A01n-47/12
02.04.81 as 010322 (476JB)

A water-dispersible concentrate comprises (a) a1-iodo substd. of mol. wt. alkyne urethane of the formula (I),

(ICG(R'2)n-O-C(O)-N(H)-)mR (I)
(b) a substantially water-immiscible organic solvent, and (c) an anionic or non-ionic surfactant of HLB 10-17.1. R is opt. substd. 20C alkyl, aryl or alkanyl, having one to three linkages corresponding to m, each R' is independently H or 1-6C alkyl, a m and n are each 1-3.

(I) may be prepd. by reacting suitable 1-iodo-alkynes carrying hydroxy gp. (themselves prepd. by iodinating appropriate acetylenic alcohols) with appropriate isocyanates. Alternative iodination can follow carbamate formation.

The concentrate is used as a fungicide in water-base coatings

function well as fungicides not only during storage but also after application to surfaces in point. (9pp)

TAISHO ★ D22 82310 D/45 ★ J5 6120-778
Adhesive plaster obtd. by blending rubber base - with magnesium metasilicate aluminate, has excellent storage stability
TAISHO PHARMACEUTICAL KK 27.02.80-JP-023508
A96 E33 G03 (22.09.81) A61k-47 C09J-03/12
27.02.80 as 023508 (136NS)
Adhesive plaster is prepd. by blending (1) magnesium metasilicate aluminate with (2) rubber base. Pref. (2) is a tacky elastomer produced by blending ageing inhibitor, filler, tackifier and softening agent with natural or synthetic rubber. Pref. plaster is produced by kneading the rubber base with an antiphlogistic and anodyne Ce methyl silicate, glycol silicyle, menthol, and coating cloth with the tacky plaster. The amt. of (1) added is pref. 1-20 (5-10) wt.% of the chemical component and 0.2- (1-3) wt.% of plaster.
The adhesive plaster has excellent adherence to and affinity for the skin of human body, rich flexibility and leaves no residue when released from the skin. The plaster has excellent temp. change-resistance. (3pp)

KOSH- ★ D22 82352 D/45 ★ J5 6121-414
Timber preservation - by forming emulsion of oil soluble organic preservative, diluting with water and injecting into timber
KOSHII PRESERVING K 29.02.80-JP-025935
C03 E19 F09 P13 (E37) (24.09.81) A01g-07/06
29.02.80 as 025935 (5KB)
Method comprises (a) selecting at least one oil soluble organic preservative for timber selected from organic chlorine-type insecticide, organic phosphorus-type insecticide, organic tin-type antiseptic, organic iodine-type antiseptic, etc., (b) forming into emulsion or solubilised compsn. (c) diluting with water and (d) injecting into timber through pressure injecting method or vacuum injecting method. Pref. the preservative soln. is combined with the aq. soln. of water soluble preservative such as boron-type insecticide, chrome-copper-arsenic-type antiseptic, chrome-copper-phosphorus-type antiseptic, etc.
Organic oil soluble cpd. can be injected into timbers without using expensive organic solvent. Further by using oil soluble cpd. and water soluble cpd. together, a synergistic preservative effect is obtd. (9pp)

KAWJ ★ D22 82413 D/45 ★ J5 6121-886
Treating aq. sodium- or potassium cyanide-contg. soln. - by contacting with ozone-contg. gas, hydrolysing, removing calcium carbonate by solid-liq. sepn., etc.
KAWASAKI HEAVY IND KK 27.02.80-JP-024481
E36 J01 (D13) (24.09.81) B01d-53/34 C02f-01/58
27.02.80 as 024481 (34AS)
Aq. NaCN- or KCN-contg. soln. from the treatment of unripened fruit e.g. bananas oranges etc. obtd. by absorbing HCN- contg. gas in aq. NaOH or KOH soln. is regenerated by (a) contacting with O₃-contg. gas to convert by oxidn., the cyanide to NaCNO or KCNO; (b) hydrolysing NaCNO or KCNO to NaHCO₃ or KHCO₃ which is then reacted with Ca(OH)₂ to form CaCO₃ and NaOH (or KOH);
Process further comprises (c) removing by solid liq. separation the CaCO₃ with which cyan complex cpds. contained are also removed by coprecipitation- (d) incinerating CaCO₃ and the cyan complex cpds. so as to be decomposed to CaO and harmless substance; and (e) converting the CaO to Ca(OH)₂ so as to be reused in the conversion of the bicarbonate to CaCO₃ whilst further adding NaOH or KOH to the aq. NaOH or KOH soln. resulted in the solid liq. sepn. to adjust its pH and for reuse as HCN-absorbing liquor. (6pp)

MITSUBISHI ★ D22 82692 D/45 ★ J5 6123-474
Fibre with long-lasting sterilising effect - is coated with composite material of casein and copper, silver and/or zinc (cpd)
MITSUBISHI RAYON KK 28.02.80-JP-024313
F06 P34 (28.09.81) A61l-15 D06m-11
28.02.80 as 024313 (172JB)
Fibre is coated on the surface with composite material consisting of (1) copper, silver or zinc or cpd. which contains at least one of them and (2) casein. (1) and (2) are attached to fibre in 2-10% wof. and in 1-10 % based on the wt. of (1) respectively in insolubilised state. The fibre includes yarn, woven, knitted and nonwoven fabrics, etc. made from natural, regenerated and synthetic fibres. The casein may be commercially available casein hydrochloride, casein sulphate, etc. It is rendered readily soluble in water e.g. by the addn. of amino cpd. such as urea and thiourea and a trace of ammonia.

In an example, the fibre is dipped in aq. soln. of (1) and (2) and after drying, is treated in aq. soln. of formalin. The fibre shows excellent and long lasting sterilising effect which stands repeated

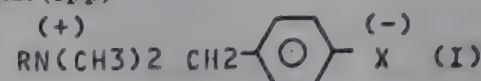
washings. (4pp)

NISY ★ D22 82780 D/45 ★ J5 6123-906
Antibacterial fungicide additive - comprising surfactant and acetic acid and/or sorbic acid, used for plastics, textiles, leather etc., and has sterilant for crops
NIPPON SYNTH CHEM IND 04.03.80-JP-027489
A60 C03 F06 (F09) (29.09.81) A01n-33/12 A01n-37/06 A01n-43/16
04.03.80 as 027489 (15MR)

Fungicide comprises a homogeneous blend of at least one of anhydrous acetic acid sorbic acid or their salts mixed with a trimethyl surfactant RN(+) (CH₃)₃X(-) or benzyl surfactant (I) where R is alkyl and X is halogen.

The trimethyl type cationic surfactant is pref. dodecyl-trimethyl-ammonium-chloride, hexadecyl-trimethyl ammonium-chloride or octadecyl-trimethyl-ammonium-chloride where R has 8-20C. The benzyl cationic surfactant is pref. tetradecyl-dimethyl -benzyl-ammonium-chloride or octadecyl dimethyl-benzyl-ammonium-chloride. The anhydrous acetic acid and sorbic acid or their salts are pref. 90-99.99 wt.% of total compsn.

The fungicide is used as additive for sterilising corns, seeds, vegetable or fruits. (3pp)



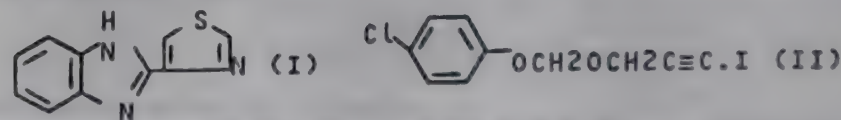
EART- ★ D22 82781 D/45 ★ J5 6123-907
Fungicidal compsn. - of benzimidazole deriv. and 4-chlorophenyl-3' iodo-propargyl-formal

EARTH SEIYAKU KK 05.03.80-JP-028329
A97 C03 E19 (29.09.81) A01n-31/14 A01n-43/78
05.03.80 as 028329 (15BZ)

The fungicidal compsn. comprises a homogeneous blend in which a benzimidazole deriv. of formula (I) is mixed with a cpd. of 4-chlorophenyl-3' iodo-propargylformal of formula (II) and the resulting mixt. as an effective component is mixed with other additive(s). The fungicidal compsn. is used as a conventional chemical agent involving a liq. agent, an emulsion agent, a hydrating agent or an aerosol agent.

The solvent, is chosen from water, alicyclic hydrocarbon such as kerosene, aromatic hydrocarbon, chlorinated hydrocarbon ketones, esters and alcohols. A pulverised solid for prepg. the hydrating agent is chosen from soyabean powders, sawdust diatomaceous earth, mica powders, talc powders, kaolinite powders or dolomite powders. The surfactant for prepg. the emulsion agent is chosen from the anionic surfactant such as (alpha)-olefine-sulphonate salt, alkyl-ether-sulphate ester salt, etc. the nonionic surfactant such as polyoxy-ethylene alkyl-ether, sorbitan-fatty acid-ester or polyoxy-ethylene-alkyl amin or a cationic surfactant is chosen from tetraalkyl-ammonium salt or trialkylbenzyl-ammonium salt.

The fungicidal compsn. is used for coating on or impregnating housing material, furniture, ceiling of house, industrial prods., wood or leather. (5pp)



NITL ★ D22 82783 D/45 ★ J5 6123-912
Tape prepn. contg. pharmaceutical - comprising of clathration agent and pharmaceutical mixed with high molecular substance

NITTO ELECTRIC IND KK 05.03.80-JP-028404
A96 B07 P34 (29.09.81) A61k-09/70 A61l-15
05.03.80 as 028404 (69RH)

Tape prepn. contg. pharmaceutical comprises moulded mixt. where cpd. clathrates pharmaceuticals with clathrating agent is mixed with high molecular substance. The clathrating agent is mixed with high mol. substance in an amt. of the clathrating agent adjusted to less than 90 wt.% of the mixt.

As pharmaceutical may be used coronary vasodilator having nitrous acid ester in molecule such as nitroglycerin. As clathrating agent may be used cyclodextrin. High mol. substance is viscous substance having pressure sensitive adhesive property. Clathrating agent content in resultant mixt., may be present in amts. of 3-50 wt.%. In the tape prepn., film-like supporting material is bonded or lie over the surface and/or in interior of the pharmaceutical. (6pp)

PERS D22 79065 U/51 #J8 1043-427
Surgical dressings - with improved liquid absorption and retention

PERSONAL PRODUCTS CO (PER) 05.04.73-BE-797833
(16.04.73-JP-043016)
A96 F04 P21 P34 + P32 P33 (12.10.81) *BE-797-833 A611-15
16.04.73 as 043016 (22NS)
Material for absorption and retaining of liquid, comprises compressed fibre of carboxyalkyl cellulose alkali metal salt whose carboxyalkyl group is about 0.35 or higher per anhydro glucose radical, the fibre being previously heated at 110 to 226°C.
The material can be used for napkin, etc. (J49130097) (9pp)

NITL D22 66693 C/38 = J8 1043-445
Tacky medicinal packing plaster prepn. - comprises coating a porous base with hydrophilic material, a tacky compsn. contg. medicinal agent, and a water impermeable detachable film
NITTO ELECTRIC IND KK 31.01.79-JP-010797
A96 B07 + P32 P34 (13.10.81) *J55102-514 A61k-08/70 + A61f-07/02 A611-15/03
31.01.79 as 010797 (5NS)

Method comprises (1) a process to spread a hydrophilic material on a porous base, (2) a process to spread the emulsion-type tacky compsn. contg. a medicinal ingredient on the hydrophilic material layer, and (3) a process to affix the humidity-impermeable detachable film onto the emulsion layer while wet.

The hydrophilic material is a mixt. of a water soluble high molecular substance e.g. PVA, CMC, sodium polyacrylate, etc., an endothermic agent, e.g., kaoline, bentonite, etc., and a water-holding agent, e.g. gelatin, glycerin, etc. and is of thickness 0.1-3 mm. The tacky compsn. is layered to have a density of 5-500 g/sq.m, pref. 100-300 g/sq.m. The detachable film is e.g. polyethylene. The prepd. tacky plaster is left at 20 deg.C and 60% RH for 12-48 hours and the water in the emulsion is absorbed in the hydrophilic layer. (J55102514) (5pp)

PHIG ★ D22 D/45 ★ SE 8002-095
Microwave heating of timber in sawmill - eliminates mould spores and reduces resistance of timber to saw-blade
SVENSKA PHILIPS AB 18.03.80-SE-002095
X25 Q76 (19.10.81) F26b-23/08

18.03.80 as 002095 (116WB)
The installation is for microwave processing of timber in a sawmill, and comprises a drier for the sawn timber using a microwave heating process bringing the wood to a temp. in excess of 70 deg.C.

This eliminates any mould-producing microorganisms and the possibility of infection of fresh timber. The installation also has a pre-heating unit for the debarked timber prior to sawing, which in turn facilitates the sawing process itself.

MAKA/ ★ D22 82854 D/45 ★ SU -507-042
Synthesis of poly-benzyl-pyridinium chloride - by reacting poly-benzyl chloride with pyridine in tetra:chloro-ethylene, in presence of water, used as bactericide and corrosion inhibitor
MAKAROV I A 29.07.74-SU-051315
E13 M14 (10.07.81) C07d-213/20 C08f-08/30

29.07.74 as 051315 (124VE)
Polybenzyl pyridinium chloride which finds use as corrosion inhibitor and bactericide, is obtd. more simply and as higher quality product when polybenzyl chloride (I) is reacted with pyridine (II) in a halogenated organic solvent dissolving the starting reagents but not the product, of density 1.2-1.8, such as tetrachloroethylene (III), in the presence of water.

The optimal molar ratio (I):(II) is 1.2-1.5:1. The product which is soluble in water, is obtd. continuously in the form of an aq. soln., and is easily converted to solid by evapn. (2pp)

WOOD= ★ D22 83184 D/45 ★ SU -804-435
Antiseptic timber impregnating compsn. - contg. sodium penta:chloro-phenolate and additional sodium penta:borate nonahydrate to increase fungicidal activity of mixt.
WOOD WORKING MECH 31.08.79-SU-813497
C03 E12 F09 P63 (E34) (25.02.81) B27k-03/52

31.08.79 as 813497 (124VE)
Addn. of sodium pentaborate nonahydrate (I) to sodium pentachlorophenolate (II) yields an antiseptic timber impregnating mixt. exhibiting increases toxicity towards e.g. blue stain and fungi such as Pullaria pullulans, Rhinocladiella atrovires, Alternaria humicola, Phialophora fastigiata, Pencillium Borge, Aspergillus niger, Chactomium geolosum, Penicillium purpurogenum. The mixt. contains (in wt.%): (I) 60-80 and (II) 20-40, and is used in the form of an aq. 1-2 wt.% soln.

Tests show that use of (I) instead of borax in the mixt. reduces the area attacked by the fungi and blue stain after 50 days from 25-35 and 3-10% to 3-7 and 1-3%. Bul. 6/15.2.81. (2pp)

ICIL D22 81597 X/44 = US 4296-88
Protecting paints, adhesives oil emulsions against microorganisms - with 2,2-bis-(methyl-aminocarbonyl)-diphenyldisulphide added as biocide
IMPERIAL CHEM IND LTD 10.04.75-GB-014795
C03 E14 G02 P34 (D15 D18) (20.10.81) *DE2615-662 C08k-05/1 C09d-05/14

25.06.79 as 051853 (+ 16.3.76, 13.10.77, 5.7.78-US-667439, 841906 922361) (974AT)

Water-based paints or adhesives in a container are protected against infection by Pullularia pullulans or other microorganisms by adding 1-10000 ppm by wt. of 2,2'-bis(methyl amino carbonyl)diphenyldisulphide.

Pref. the additive is at 25-500 ppm by wt.(5pp)

NALC ★ D22 83358 D/45 ★ US 4295-98
Control of microorganisms in aq. systems - by using mixt. of 2-methyl-4-isothiazolin-3-one and its 5-chloro deriv. with chlorin (dioxide) pref. with bio:dispersant

NALCO CHEMICAL CO 14.07.80-US-168858

A97 E13 F09 (D15 E36) (20.10.81) D21h-05/22

14.07.80 as 168858 (1248JB)

Control of micro-organisms in heavily contaminated aq. system is achieved by addn. of 0.5-10 p.p.m of a mixt. of 75% of 5-chloro-2-methyl-4-isothiazolin-3-one (I), 25% 2-methyl-4-isothiazolin-3-one (II), and Cl2 or ClO2 pref. in the presence of a biodispersant esp. ethylene oxide-propylene oxide block copolymer.

The mixt. of (I) and (II) is a commercial prod. that may be used for good control of bacteria, moulds, fungi, yeasts and algae, but concns. over 10 p.p.m are required with heavy contamination of aq. systems. On use with Cl2 or ClO2, the mixt. shows synergistic effect and it is often possible to reduce the microbial count to zero and to maintain this level. The treatment is used for cooling tower systems, lagoons, lakes, ponds, pools, pulp and paper mill systems etc. in which slime problems are normally encountered. (6pp)

JAPS D22 59043 C/34 = US 4296-03
Water contg. polymer moulding compsn. - comprises polymers latex, oil and polyvalent metal and(or) polyether esp. used for bandages

JAPAN SYNTHETIC RUBBER 30.01.79-JP-008739

A18 + P34 (A25 A96) (20.10.81) *DE3002-864 C08k-05/06

24.01.80 as 115098 (945WB)

Moulded article is of hydrous polymer comprising (A) 100 pts. w. latex, (B) 0.5-30 pts.wt. polyoxypropylene, oxyethylene oxypropylene copolymer or polyoxytetramethylene polyether opt. combined with polyvalent metal cpd. and (C) 10-200 pts.w. oily substance.

The latex may be an emulsion polymerisation prod., a pre-emulsified polymer latex or a macromolecular substance late. It has polymer concn. 20-70 wt.% and contains anionic gps.

The article is not deformed even when held in hot water; it has temp. independent tack strength and it is kept soft even below deg.C. It has excellent properties as a material which is kept cool for a long time and is used e.g. as a plaster base. (7pp)

SCHE/ D22 58942 C/34 = US 4296-03
Photo-reactor for sterilising flowing media - having chambers for irradiating with u.v. light with adjustment of absorption layer thickness for optimum effect (PT 16.7.80)

SCHENCK G 05.02.79-DE-904242

P34 (D15) (20.10.81) *DE2904-242 A611-02/10

28.01.80 as 115657 C.i.p 4255383 (+ 11.7.78-US-923710) (6AT)

Liq. purification appts. employs UV radiation and comprises two or more irradiation chambers, with a window between the through which liq. such as water flows in series. Radiation introduced into one chamber at a side opposite the window, pass through that chamber, the window, and the other chamber as well as any further windows and chambers.

The total number of chamber is below four, and each absorbs between 5 and 50% of the total radiation. Pref. three chambers are annularly arrayed about a radiation source emitting radial (18pp)

NASM/ D22 57202 C/33 = US 4296-03
Pasteurisation autoclave - with electrical heating elements maintain temp. during final vacuum period

NASMAN JO 30.01.79-SE-000813

S05 P34 (S03) (20.10.81) *DE3003-305 A611-02/06

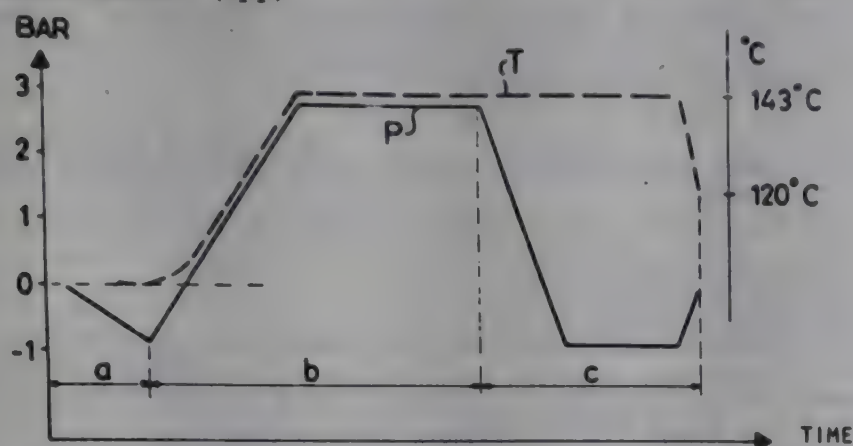
30.01.80 as 116843 (1358TM)

For sterilising e.g. bandages and surgical instruments in vacuum-steam autoclave, a pre-vacuum is drawn, (a) then steam is supplied to provide sterilisation temp and pressure for required time (b) after which an after-vacuum is drawn(c).

During the whole after-vacuum period the sterilisation temp. maintained constant by supplying dry heat from a separate

source. As the vacuum is allowed to decay at the end of the period the temp is lowered slightly, pref by 20 deg C. Dry heating is pref by electrical elements.

The method provides reliable removal of residual moisture after sterilisation. (3pp)



NIPQ ★ D22 83423 D/45 ★ US 4296-068
Sterilisation station for succession of containers - with opposed
chambers defining conical spray pattern of heating sterilising
liq.

DAI NIPPON INSATSU 21.09.79-JP-121675 (19.02.79-JP-017987)

T06 X25 P43 (20.10.81) B08b-03/12 B08b-07/04

15.02.80 as 121730 (+ 31.7.79, 8.8.79-JP-105847, 101036) (295HM)

Articles are fed successively along a path where they are sterilised. Two sterilising chambers are positioned on opposite sides of the path. A sterilising liq. is supplied to each chamber as a fine spray from a nozzle. The nozzles and sterilising chambers are pref. heated.

Each sterilising chamber includes a spray channel directing the liq. sprayed from the nozzle towards the article to be sterilised. A confined air chamber is formed in each sterilising chamber, the spray channel being open to the air chamber which serves to reduce the velocity of the spray. Pref. the article movement is intermittent and the nozzles are operated to produce a spray only when an article is detected in the spraying position.

The sterilising system is formed as part of an integrated system which sterilises, dries and fills successive open-topped containers with food, precision parts or pharmaceutical prods. prior to fitting a lid. (45pp)

IDAC- ★ D22 83456 D/45 ★ US 4296-152
Impregnating wood with penta:chlorophenol - from dispersion
prepd. by dissolving phenol in petroleum fraction and then
adding soln. to water

IDACON INC 08.05.80-US-135992

C03 E14 F09 P42 (20.10.81) B05d-01/18 B05d-03 C09d-05/16

08.05.80 as 135992 (914HM)

Wood is impregnated with pentachlorophenol (I) by (i) preparing a soln. of 25-55 wt.% of (I) in an organic solvent comprising a petroleum fraction at least 50% of which will distill above 485 deg.F, (ii) preparing a finely divided dispersion of the soln. in water in which the (I) content is 0.1-10 wt.% and (iii) impregnating wood with the dispersion.

The compsn. makes it possible to reduce by about 85% the amt. of oil used in treating wood with (I), thereby making it economically feasible to use (I) as a wood preservative in place of creosote while at the same time reducing the amt. of polluting oil vapour in the atmosphere and giving a wood prod. which has superior appearance and which is clean to handle. (4pp)

WARD/ ★ D22 83471 D/45 ★ US 4296-179
Package partic for sterile surgical items - peeled open by
breaking internal bonds of blush lacquer layer

WARDWELL CR 24.10.75-US-625506 (24.06.74-US-482436)

P31 P73 (20.10.81) A61b-17/06 B32b-09/06 C09j-07/02

24.10.75 as 625506 Div.ex 3938659 (1358KB)

A package with frangible bonding includes a paper substrate with internal bonds and a frangible system of dried blush lacquer bonded to the substrate, with heat sealed material for bonding the lacquer to a surface.

The lacquer is of film-forming resin containing voids and forming cohesive internal bonds made weaker by the voids than the substrate and material internal bonds. The substrate is pref. kraft paper coated with non-nutritive surface sizing repellent of the vehicle with which the lacquer is applied. The package can be opened by peeling, breaking the lacquer bonds. (6pp)

ORTH-★ D22 88521 D/45 ★ WP 8102-977
Aq. soln. contg. non-human mucin and preservative - esp.
hydrogen peroxide, useful e.g. as artificial saliva

ORTHANA KEMISK FAB(PEDE/) 13.03.81-DK-001163
(25.04.80-DK-001811)

B04 P34 P81 (B07) (29.10.81) A01n-59 A61k-09/08 A61k-35/24
A61k-37/02 A61l-02/18 G02c-13

27.04.81 as U00043 (1251BZ) (E) DE-702722 FM---3554 FR2345940
GB1077136 GB1500707 US1152066 J52108013 J52108014 N(AU DK FI
JP NO US) E(AT CH DE FR GB LU NL SE)

An aq. compsn. contains non-human, mammalian, buccal or gastrointestinal mucin; has viscosity relative to water of at most 50 (Oswald viscosimeter); has been sterilised and contains a physiologically tolerable amt. of a preservative. It is pref. free of mucin-decomposing enzymes and the sterilising preservative is esp. a peroxide at 0.01-70, heat 0.05-20mM. Specifically H2O2 at an initial concn. of 10mM is used. Pref. the mucin used is porcine gastric mucin (Ia) and/or bovine salivary mucin (Ib), particularly a mixt. of wt. ratio (Ia):(Ib) of 100:0.5-5. The mucin concn. of the soln. is pref. 0.2-6, esp. 1-5 wt. %.

The compsn. is useful for application to human mucous membranes and as an ophthalmic soln., e.g. for cleaning or soaking contact lenses. Specifically it is used as an artificial saliva for treating xerostomia.

The soln. retains its bactericidal and fungicidal activities for a long time even at low peroxide concn., e.g. at least 1 yr. when kept in a closed container at room temp., and 2 months when stored at 4 deg.C. with occasional removal of a portion of the soln. (35pp)

CSIR ★ D22 83533 D/45 ★ WP 8103-020
Substd. 1,3,5-triazine derivs. prodn. - by reacting N-
cyano:amidine and halo:methylene iminium salt, useful e.g. for
inhibiting germination of fungus spores

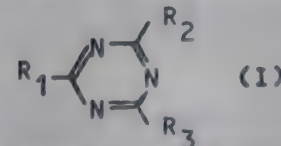
COMMONWEALTH SCIENT ORG 22.04.80-AU-003241

B03 C02 E13 (29.10.81) C07d-251/16 C07d-403/04 C07d-405/04

22.04.81 as AU0046 (1251BZ) (E) US3203550 US3154547 DE1178437
N(AU JP US) E(CH DE FR GB)

Prod'n. of triazine derivs. of formula (I) comprises reacting an iminium salt of formula (II) $\text{RA-C(X)=N(+)R5R6 Y(-)}$ with an amidine of formula (III) R1-C(NH2)=N.CN . In the formulae (R1 and R2 are each H, halo, alkoxycarbonyl, opt. subst'd. alkyl, aryl or heteroaryl, amino subst'd. by 1 or 2 alkyl, by 1 aryl or by 1 alkyl and 1 aryl, or are alkylthio, arylthio, alkoxy or aryloxy, but cannot both be halo. R3 is halo, N-heteroaryl, or subst'd. amino as for R1. R4 is H, halo, alkoxycarbonyl, opt. subst'd. alkyl, aryl or heteroaryl, alkylthio, arylthio, alkoxy or aryloxy. R5 and R6 are H, alkyl or aryl (but not both H), or together they complete a sat'd. heterocycle. X is halo. Y is an anion). The reaction is pref. carried out in acetonitrile, benzene, chloroform, methylene dichloride or excess POCl_3 . Reaction is generally at 0 to 100 deg.C. and (I) is recovered by pptn. with water or by extraction. Pref. (II) are formed in situ by reacting the amide R4.CO.NR5R6 or dithiocarbamate R'4'.CS.NR5R6 (R'4' is alkylthio) with an acid halide, pref. POCl_3 , POCl_5 or COCl_2 ,. Specifically with the excess POCl_3 being used as solvent.

Some (I) inhibit the germination of fungus spores. Triazines generally are useful as plastics intermediates, herbicides, disinfectants, algicides, pharmaceuticals and explosives. The process is applicable to a wide range of triazines (including new cpds.) uses relatively mild conditions and readily available starting materials, and generally gives high yields (up to 90%). (29pp)



See Also

D21 US 4296209 D25 NL 168115

unsatd. bonds in the presence of a Pd catalyst, the improvement comprises effecting the hydrogenolysis in the presence of a S cpd. of the formula

HO-(CR₁R₂)_n-S-CH₂-CH(R₃)-S-(CR₄R₅)_n-OH (I)
In (I) R₁, R₂, R₄ and R₅ are each H or 1-6C alkyl; R₃ is 1-6C alkyl; n is an integer of 1-6. The process gives selectively ethylenic cpds. from acetylene compounds in a good yield with high purity. The hydrogenolysis is effected with or without a solvent at room temp., under heating or under cooling. Examples of (I) as an additive is 1,2-bis-(2-hydroxyethylthio)propane. The S compound is added in an amt. of 0.01-200 w/w% to a Pd catalyst. (6pp)

DNIN ★ D23 82217 D/45 ★ J5 6120-627
Selective redn. of cpds. having acetylenic unsatd. bonds - by hydrogenolysis in presence of hydroxyalkyl alkyl sulphide and palladium catalyst

DAINIPPON INK CHEM KK(DNII) 27.02.80-JP-022842
B05 E19 (22.09.81) B01j-31/02 C07c-29/17 C07c-33/02
27.02.80 as 022842 (33GW)

Organic cpds having ethylenic unsatd. bonds are prepd. by hydrogenolysis of organic cpds having one or more acetylenic unsatd. bonds in the presence of a palladium catalyst. Hydrogenolysis is carried out in the presence of a sulphide cpd. of formula: R-S-(CR₂R₃)_n-OH where R₁ is 1-8C alkyl, R₂ and R₃ are each hydrogen or 1-6C alkyl, and n is an integer of 1-6.

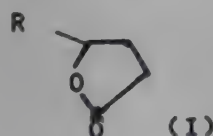
The process gives selectively ethylenic cpds. in good yield with high purity. The ethylene cpds. thus obtd. are useful as pharmaceuticals, perfumes or their intermediates.

Hydrogenolysis is effected with or without a solvent at room temp., under heating or under cooling. Examples of the sulphide cpds. are 2-hydroxyethyl methyl sulphide, 3-hydroxypropyl methyl sulphide, 2-hydroxyethyl ethyl sulphide and 2-hydroxyethyl isobutyl sulphide. The sulphide cpd. is added in amt. 0.01-200 w/w% to a palladium catalyst. The catalyst includes Pd-calcium carbonate, Pd-barium sulphate, Pd-active carbon, or Pd-metal (e.g. Pb, Sn, Zn, Bi, Cu)-carrier (e.g. calcium carbonate, calcium sulphate, barium sulphate). Suitable solvents can be benzene, hexane, dichloromethane, tetrahydrofuran, and acetone. (5pp)

DAAB ★ D23 82249 D/45 ★ J5 6120-678
Octanoic acid lactone(s) - useful as active components in spice and perfume compns.

SHIONO KORYO KK 28.02.80-JP-024840
E13 (22.09.81) A231-01/22 A61k-07/46 C07d-307/32
28.02.80 as 024840 (78AS)

Octanoic acid lactones of formula (I) are new. In (I), R is modified 4C straight chain alkyl having 1 or 2 double bonds and methyl in the gamma-position. Specific (I) are 7-methyl-4-hydroxy-5,7-octadiene acid lactone (R is CH₂=C(CH₃)-CH=CH-) (A) 7-methyl-4-hydroxy-7-octenoic acid lactone (R is CH₂=C(CH₃)-CH₂-CH₂-), (B), 7-methyl-4-hydroxy-6-octenoic acid lactone (R is CH₃-C(CH₃)=CH-CH₂-) (C) or 7-methyl-4-hydroxy-5-octenoic acid lactone (R is CH₃-CH(CH₃)-CH=CH-) (D). The cpds. (A) has sweet fragrance like apple or peach. (B) has fermentative fragrance like cheese, (C) has sweet fragrance like butter and (D) has fermentative fragrance like butter. (I) are added to foods as spice or to toilet goods as perfume. (6pp)

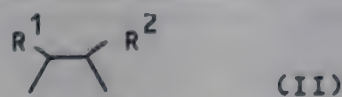
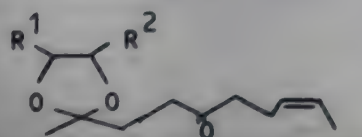
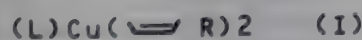


SAGA ★ D23 82251 D/45 ★ J5 6120-681
(Z)-8-Nonene-5-one deriv. prodn. - by reacting cis alkenyl copper cpd. with alpha beta unsatd. ketone

SAGAMI CHEM RES CENTRE 27.02.80-JP-022790
E13 (22.09.81) B01j-23/72 C07d-317/26
27.02.80 as 022790 (78PW)

(Z)-8-nonene-5-one deriv. of formula (III) is produced by reacting cis-alkenyl copper cpd. of formula (I) with alpha, beta-unsatd. ketone. (where R is alkyl, R₁ and R₂ are H or lower alkyl and L is ligand). The reaction is pref. carried out in the presence of organophosphorus cpd.

(III) is hydrolysed to produce cis-jasmone useful as perfume. (7pp)



TORA ★ D23 82499 D/45 ★ J5 6122-322
Methylene:cyclohexenol deriva. - for perfumes or flavouring tobacco, food, tea, toiletries, etc.

TORAY IND INC 04.03.80-JP-026172
E15 (25.09.81) A231-01/22 A61k-07/46 C07c-35/18 C07c-49/24
04.03.80 as 026172 (78WB)

Methylenecyclohexenol deriv. of formula (I) (where X is CO or -CHOH-) is novel. Perfume or flavour compsn. contg. (I) is also claimed.

The specific cpd. 6,6-dimethyl-2-methylene-1-(3-oxo-1-butenyl)-3-cyclohexene-1-ol has a sweet fragrance like cigarettes or wood. 1-(3-hydroxybutyl)-6,6-dimethyl-2-methylene-3-cyclohexene-1-ol has a fragrance like cigarettes, wood or fruit and 6,6-dimethyl-2-methylene-1-(3-oxobutyl)-3-cyclohexene-1-ol has a fragrance like wood, flowers or camphor. (7pp)



TSUC/ ★ D23 82837 D/45 ★ J8 1043-715
Concn. and sepn. of antifungal, antibiotic etc. - from crude rice bran or germ oil, by partially neutralising with alkaline cpd. recovering fatty acid fraction, etc. (J5 10.06.75)

TSUCHIYA T 23.10.73-JP-119124
B04 C03 (14.10.81) A231-03
23.10.73 as 119124 (22AS)

Crude rice bran oil or rice germ oil is partially neutralised with an alkaline substance, a fatty acid fraction is recovered and then a fraction contg. substance having antibiotic, antiseptic, antifungal and anti-acidification properties is recovered. (J50069249) (3pp)

HOFF D23 13080 X/08 = NL-168-193
Nickel peroxide prepn by oxidn and drying under inert atmos - eg nitrogen or argon prod useful for oxidn of alcohols to carbonyl cpds

HOFFMANN-LA ROCHE AG 05.08.74-CH-010690
E19 (16.10.81) *BE-832-077 C01b-15/04 C07c-45/29 C07c-175 + C07b-03
25.07.75 as 008900 (913NS)

2,3-Unsatd. carbonyl cpds. are prepd. by oxidation of 2,3-unsatd alcohols using nickel peroxide as oxidant. The peroxide is prepd. or regenerated by treating Ni(OH)₂ or spent peroxide with a strong oxidant with the exclusion of CO₂ or soluble carbonate. The material is dried to a wt. of 110-160 g/mol. initial Ni(OH)₂.

Prof. the oxidn. of the alcohol is effected at below 0 deg.C. The amt. of peroxide used depends on the quantity of active O₂, and is typically 1.5-2.5 (1.8-2.2) equivs. per mol. alcohol. The method is esp. suitable for oxidising geraniol to citral. (6pp)

GIVA D23 01885 W/01 = NL-168-203
1,1,3,4,4,6-Hexamethyl-1,2,3,4 tetrahydronaphthalene prodn. - from p-cymene and neohexene with t-alkyl halide

GIVAUDAN L & CIE SA 05.12.73-US-422035
E14 (16.10.81) *US3856-875 C07c-13/48 + C07c-02/72
05.12.74 as 015867 (913NS)

1,1,3,4,4,6 - Hexamethyl 1,2,3,4- tetrahydro - naphthalene (I) is prepd. by reacting an equiv. or excess of p-cymene with an approx. equimolar soln. of neohexene and a tert. alkyl halide, in the presence of an appropriate amt. of anhydrous aluminium halide catalyst suspended in a solvent. The solvent is from ethylene dichloride, chloroform, methylene dichloride, 1,1,2,2, - tetrachloro-ethane, 1,2- dichloro-ethylene (cis-trans), 1,2,3-trichloro-propane, 1,1,2- trichloro-ethane, monochloro- benzene, fluoro-benzene, ortho-dichloro-benzene, and p-xylene.

Prof. 2,5- dichloro 2,5- dimethyl-hexane is used as the tert. alkyl halide p- Cymene is used as 1.2-3.0 mol. for each neohexene and halide. (I) is used in the perfume industry for musky notes. (6pp)

AKOR= ★ D23 83229 D/45 ★ SU-804-624
Prodn. of unsatd. alcohol(s) for plastic and perfume mfr. - by aldehyde hydrogenation in presence of osmium black contg. oxide of aluminium, boron or zinc as catalyst

ASKAZAORG CATALYST 23.04.79-SU-756802
A41 E14 (17.02.81) C07c-29/14 C07c-33/03
23.04.79 as 756802 (314VE)

Unsatd. alcohols, used as co-monomers and fragrant agents have the formula: R(2)-CHCR(1)CH₂OH (where R(1) is H or CH₃ and R(2) is phenyl or isopropyl-phenyl).

They are prepd. in the better yields and in a simpler process by hydrogenating the corresp. aldehydes in the presence of a mechanical mixt. of Os black and Al₂O₃ or B₂O₃ or ZnO in a wt. ratio of 2.8-3:1. The process is carried out at 10-30 deg.C. and atmos. pressure. A reaction solvent is used, pref. water or 0.05-0.1N methanolic KOH. (4pp)

MAGO/★ D23 83231 D/45 ★SU-804-626
 Prodn. of satd. aldehyde monomer and aromatic agent - by reacting of olefin, with hydrogen and carbon monoxide over chromium, molybdenum or tungsten carbonyl and tin chloride complex

MAGOMEDOV G K I 24.07.78-SU-649082

A41 E17 (17.02.81) C07c-47/02

24.07.78 as 649082 (314VE)

Satd. aldehydes useful in the prodn. of plastics, lacquers and perfumes are obtd. by reacting an unsatd. cpd. of formula: R-CHCH₂ (where R is -(CH₃)₃Si or a 1-8C hydrocarbon radical) with an H₂/CO mixt. at 160-180 deg.C. and 250-300 atmos. pressure.

A catalyst is used comprising: a mixt. of Cr, Mo or W hexacarbonyl with SnCl₂ in a mol ratio of 1:1, or a bimetal complex of formula: M(CO)₅.SnCl₂.

The amt. of catalyst used is 0.5-1 wt.% on olefin starting material. The above catalyst is less toxic and simpler to use than prior art catalyst. (5pp)

INFL★ D23 83448 D/45 ★US 4296-137
 Augmenting or enhancing aroma or taste of foodstuffs - by addn. of 1-ethoxy-ethyl acetate

INT FLAVORS & FRAGR INC 07.08.80-US-176111

B07 E17 (D13 D21) (20.10.81) A231-01/22

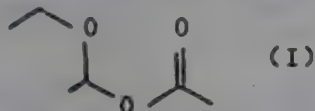
07.08.80 as 176111 (1248BZ)

Aroma or taste of a foodstuff or chewing gum is augmented or enhanced by addn. of 0.05-500 p.p.m of 1-ethoxyethyl acetate of formula (I).

MeCOOCH(OEt)Me (I)

Cpd. (I) is used alone, or chemically combined with carbohydrates such as cyclic dextrans, to generate acetaldehyde in the foodstuffs etc. to contribute to a fresh effect, esp. with citrus fruit and red berry types. The (I) may also be added to perfumes, perfumed articles, colognes, smoking tobaccos, medicinal prod. compsns., toothpastes, etc.

Cpd. (I) is obtd. by reaction of ethyl vinyl ether with acetic acid. (13pp)



SCMZ★ D23 83500 D/45 ★US 4296-257
 Individual dihydrocarvone isomers prodn. - by acid catalysed rearrangement of sepd. limonene oxide isomers for use as flavours and perfumes

SCM CORP 07.01.80-US-109989

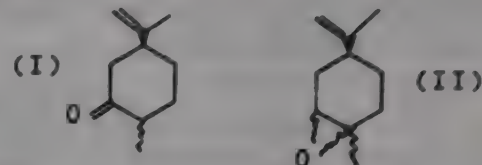
E15 (20.10.81) C07c-45/51

07.01.80 as 109989 (1251MR)

A single dihydrocarvone isomer (I) is prepd. from a liq. mixt. of cis- and trans-limonene oxides (II) by first sepg. (II) isomers (a)

by selective rearrangement of cis- (II) at 50-95 deg.C in presence of acid catalyst to give trans- (I), and stopping the reaction before rearrangement of trans- (II) occurs; or (b) by fractionally distilling (II). The sepd. isomers are then individually rearranged in presence of 0.1-10 wt.% catalyst at 50-95 deg.C. The acid is then neutralised and (I) recovered.

Pure isomers of (I) can be efficiently produced from readily available citrus limonene. Cis- (I) has a musty, woody odour, while trans- (I) has a spearmint odour and are useful as flavours and perfumes. (4pp)



FIRM D23 57326 C/33 = US 4296-258
 Macrocyclic acetylenic ketone cpds. prepn. - by halogenating cyclic hydrazone deriv., reducing halogenating cpd. and heating in aq. medium, used as perfume intermediates

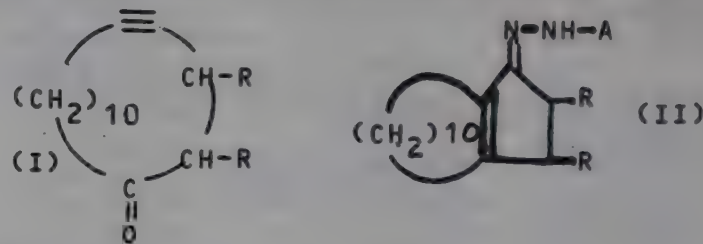
FIRMENICH SA 26.01.79-CH-000796

E15 (20.10.81) *EP--13-995 C07c-45

28.12.79 as 107847 (924RH)

Prepn. of acetylenic macrocyclic ketones of formula (I) comprises (a) treating a hydrazone of formula (II) with a halogenating agent selected from Br₂, I₂, Cl₂, 1,3-dibromo-5,5-dimethyl-hydantoin, N-bromosuccinimide, N-iodosuccinimide and N-chlorosuccinimide, in the presence of a lower aliphatic alcohol and at -25 to +25 deg.C, (b) reducing the excess of halogenating agent by addn. of reducing agent, and (c) heating the reaction mixt. in an aq. medium at 20-60 deg.C. In the formulae one R is 1-3C lower alkyl and the other H; A is sulphonyl radical R₁SO₂; R₁ is aryl. Specific (II) is bicyclo(10.3.0)pentadec(1(12))en-13-one p-toluene sulphonyl hydrazone and (I) is cyclopentadec-1-yn-5-one.

The cpds. are useful intermediates for the synthesis of perfuming ingredients viz. muscone and Exaltone (RTM). (5pp)



See Also

D13 DS 2960514

D13 J5 6123929

D13 J5 6123930

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

ALKU★ D25 81771 D/45 ★DE 3015-374
 Long-chain subst. urea prepn. - by reacting fatty acid N-chloramide with aliphatic prim. or sec. amine in isopropanol and/or tert. butanol

AKZO GMBH 22.04.80-DE-015374

E19 (20.10.81) C07c-126 C07c-127/15

22.04.80 as 015374 (200KB)

Urea deriva. having formula R-NH-CO-NR₁R₂ (I), (where R is a satd. 10-30C aliphatic hydrocarbyl; R₁ is a 1-20C aliphatic gp., opt. branched and/or mono- or poly-subst. by OH or COOH, or an araliphatic gp. contg. 1-20C in aliphatic part and 6-12C in aromatic part; R₂ is H or R₁) are prepd. by reacting a higher fatty acid N-chloramide having formula R-CO-NH-Cl with an aliphatic or araliphatic prim. or sec. amine having formula HNR₁R₂, at 20-100 (40-60) deg.C., in the presence of an alkali- or alkaline earth hydroxide, in isopropanol and/or tert. butanol and

opt. up to 50 wt.%, w.r.t. alcohol(s), of water.

(I) are used as textile auxiliaries and as foam-stabilisers in anion-active detergent and cleaning compsns. On using isopropanol and/or tert. butanol as solvent, pure (I) is obtd. in high yields, e.g. 60-90% without urethane or acyl-urea formation. (23pp)

FARB★ D25 81830 D/45 ★DE 3016-170
 Microcapsules with pre-defined release temp. - prepd. by coacervation of gelatin in presence of core material and prehardening and hardening of microcapsules obtd.

BAYER AG 26.04.80-DE-016170

A97 C03 J04 (20.10.81) B01j-13/02

26.04.80 as 016170 (280BZ)

New microcapsules have defined release temperature for the enclosed core material. Preferred are microcapsules which

release the enclosed core material in the presence of water at a defined temperature in the range between 30 and 150 deg.C.

The microcapsules are produced as follows: (a) gelatine (opt. in admixture with gum arabic, carboxymethylcellulose and/or anionic polymers) is coacervated in the presence of the core material in aqueous medium by dilution, cooling and/or altering the pH of the mixture; (b) the coating of the resulting microcapsules is pre-hardened (opt. in acidic medium) with natural and/or synthetic tanning agents then hardened with carbonyl cpds. in weakly acidic or basic medium; and (c) the resulting microcapsule suspension is directly dried or the microcapsules are separated from the liquid phase and then dried. Preferred carbonyl cpds. for the hardening are formaldehyde, glutaraldehyde, glyoxal and 1,3-pentanedione.

Microencapsulation of materials release of which at a predefined temperature is required, e.g. detergents, bath additives, organic solvents, paraffin oils, perfume oils, silicone antifoams, phosphoric acid esters, liquid crystals, pigments, tints, disinfectants, plant treatment agents. (36pp)

HENK D25 23906 C/14 = EP G009-103
Aq. cleanser soln. for hard surfaces - contg. surfactant(s) and water-soluble polyethylene glycol to improve cleansing efficiency

HENKEL KG AUF AKTIEN 16.09.78-DE-840463

A97 (A25) (28.10.81) *DE2840-463 C11d-03/37

10.09.79 as 103371 (481JB) (G) DE1952911 DE2616404 DE2648304 FR2330764 US4065409 E(AT BE CH FR IT NL)

Liq. cleaning agent (I) for hard surfaces is based on aq. solns. of tensides (II), builders and organic polymers (III). (I) contains, as (III), 0.05-0.5 (pref. 0.08-0.4) wt.% of water-soluble polyethylene glycols of mol. wt. from 300,000-4000,000, pref. 500,000-1000,000. Pref. (I) contains synthetic anionic (II), soaps or non-ionic (II) or mixts. in amts. of 1-30 wt.%, based on total compsn. (8pp)

UNIL ★ D25 81931 D/45 ★ EP --38-590
Bleaching and laundering of fabrics - by treatment with compsn. contg. detergent and chlorite, then exposure to UV from daylight or artificial source (BR 13.10.81)

UNILEVER NV 11.04.80-GB-012045 (11.04.80-GB-012042)

E34 (28.10.81) C11d-03/39 C11d-07/54 D061-03/08

06.04.81 as 200385 (478AS) (E) No-Citns. E(BE CH DE FR IT LI NL SE AT)

Fabrics are laundered and bleached as follows: (a) the fabric is treated with an aq. liq. (pH 8.5-11) contg. 0.5-10 g/l. of a compsn. consisting of at least 1% by wt. of a surfactant (I), opt. a builder (II), and 0.1-40% of a chlorite (III); and (b) the aq. liq. and/or the fabric is then irradiated with UV light.

Pref. compsns. contain (by wt.) 5-99.5% deterative (I); pref. 15-80% esp. 15-40% (II); 0.5-40% (III), and less than 20% H₂O. Deterative (I) is suitably an alkali metal soap, or an anionic, zwitterionic, amphoteric, semi-polar, nonionic or cationic surfactant or mixts. (II) is suitably an alkali metal phosphate, carbonate, or aluminosilicate, etc. (III) is pref. an alkali(ne earth) metal chlorite, esp. NaClO₂. Ratio total wt. (I) and (II): (III) is pref. above 1:1, esp. above 3.5:1, partic. above 5:1. Compsns. are stable to storage, and allow the time and degree of bleaching to be easily controlled. Method is safe and inexpensive, and avoids the use of high energy UV sources. (13pp)

PROC D25 37998 D/21 = EP --38-591
Improved detergent compsns. - contg. water-insol. aluminosilicate detergency builder, synthetic surfactant, and unsatd. soap

PROCTER & GAMBLE CO 17.04.80-US-141222

E19 (E33) (28.10.81) *US4265-777 C11d-03, 12 C11d-09/36

06.04.81 as 200388 (478MR) (E) DE2857154 DE2544035 US4180485 FR2283222 E(AT BE CH DE FR GB IT LI NL SE)

Detergent compsn. consists of: (a) 1-20% of synthetic surfactant (I); (b) 5-80% of an H₂O-soluble soap (II) of a 16-22C unsatd. fatty acid; (c) 5-50% of an H₂O-insoluble inorganic detergency builder (III); and (d) as balance H₂O. Na₂SO₄, 1-4C alcohols, Na silicates, Na₂CO₃ or mixts. (any satd. soap in amt. not above (II)).

(I) is an efficient H₂O-soluble soap curd dispersant from nonionic, synthetic, anionic, zwitterionic, amphoteric, or semipolar nonionic surfactants, or mixts. (III) is zeolite A, X or P of particle size dia. 0.01-25 microns and contg. at least 10% H₂O of hydration; and/or Mz(zAlO₂.ySiO₂) (where M is Na, K or NH₄; z is 0.5-2; y is 1) of particle size dia. less than 25 microns, and Mg ion exchange capacity at least 50mg equiv. of CaCO₃ hardness/g of anhydrous aluminosilicate, and Mg ion exchange rate at least 1 grain/gallon/min./g/gallon.

Use of (II) improves particulate soil removal, body soil removal, and cool H₂O detergency. In addn., the compsn. has good detergency in the presence or absence of conventional phosphate and polycarboxylate detergency builders. (23pp)

MITP D25 60228 A/30 = GB 1601-65
Liq. nonionic polyglycol surfactants prepn. - by addn. of propylene oxide and ethylene oxide to higher prim. alcohol(s)
MITSUBISHI PETROCH KK 16.03.77-JP-028071
A25 E17 (A97) (04.11.81) *DE2810-703 C11d-01/72 + C08g-65/28 16.03.78 as 010453 (937AT)

Liq. detergent comprises a nonionic surfactant consisting of an adduct that is the prods. of the addn. reaction between propylene oxide and ethylene oxide and a satd. aliphatic prim. alcohol ROH, where R is 8-18C alkyl, of which at least 30% by wt. is linear alkyl.

Propylene oxide and ethylene oxide undergo addn. reaction (a) as a mixt., (b) by separate and alternate addn., each component being added at least twice at separate instances and in separate subdivision lots; or (c) in non-simultaneous combination of (i) the addn. of the mixed oxides and (ii) the separate addn. of propylene oxide and ethylene oxide.

In the addn. reaction 3-9 moles propylene oxide and 6-22 moles of ethylene oxide are added for every mole of satd. prim. alcohol. The addn. mole ratio of propylene oxide to ethylene oxide is 0.25:1 to 0.6:1.

The surfactant has low m.pt. and high detergency that gives good performance with little odour. (10pp)

LIOY ★ D25 82639 D/45 ★ J5 6122-898
Liq. detergent compsn. - contg. two alkyl ethoxy-sulphate(s) and an alkylamine oxide

LION CORP 29.02.80-JP-025941

A97 E12 (E16) (26.09.81) C11d-01/83

29.02.80 as 025941 (126RH)

Liq. detergent compsn. contains 2 kinds of salt of alkyl ethoxysulphate of formulae R₁O-(CH₂CH₂O)_m-SO₃M (a) and R₂O-(CH₂CH₂O)_n-SO₃M (b) expressed by (a) and (b) and an alkylamine oxide of formula R₃R₄R₅N-O (c), as essential active components, wherein the number of the added ethylene oxide as an average in the mixt. (a) and (b) is 3.5-4.5, the total content of (a) and (b) is 15-25 wt.% based on the amt. of the compsn., and the content of (c) is 2-5 wt.% (where R₁ is 10-15C alkyl; m is 1.5-3.4. M is an alkali metal; R₂ is 10-15C alkyl; n is 4.6-6.5; R₃ is 10-14C alkyl; R₄ and R₅ are 1-4C alkyl). Detergent compsn. has superior detergency and suitability at low temp.. It is suitable as the detergent for vegetables and tablewares. (6pp)

LIOY ★ D25 82640 D/45 ★ J5 6122-899
Liq. detergent compsn. - contg. polyoxyethylene sulphonate, trialkylamine oxide and long chain alkyl benzene sulphonate salt

LION CORP 29.02.80-JP-025942

A97 E12 (E16) (26.09.81) C11d-01/83

29.02.80 as 025942 (126RH)

A liquid detergent compsn. contains (a) R₁O(CH₂CH₂O)_nSO₃M 15-25 wt.% (where R₁ is 10-15C alkyl; n is 3-6; M is an alkali metal); (b) R₂R₃R₄N-O 2-5 wt.% (where R₂ is 10-14C alkyl; R₃ and R₄ are 1-4C alkyl); (c) an alkali metal salt of 10-14C n-alkyl benzene sulphonate 0.2-2.5 wt.%.

The stability at low temp. of the detergent is improved by the use of a small amt. of long chain alkylbenzene sulphonate. It is suitable as the liquid detergent for vegetables and tableware, or as shampoo. (5pp)

LIOY ★ D25 82693 D/45 ★ J5 6123-476
Clothes processing agent for domestic use - comprises water-insoluble compsn. contg. quaternary ammonium salts and ionic surfactant

LION CORP 04.03.80-JP-027124

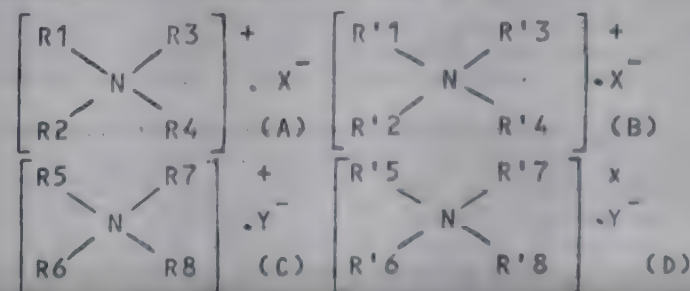
A97 E19 F06 (28.09.81) D06m-13/46

04.03.80 as 027124 (172GW)

The agent comprises an aq. dispersion of water insol. compsn. which contains (1) mixt. of four types of quat. ammonium salts of formulae (A), (B), (C) and (D) and (2) anionic surfactant in molar ratio of 80:20 to 50:50.

In the formulae, R₁, R₂, R'₁, R'₂ and R'₃ are decyl, dodecenyl or beta-hydroxy-dodecyl gp.; R₃, R₄, R'₄, R'₇, R'₈ and R'₈ are lower alkyl, benzyl gp., (C₂H₄O)_nH or (C₃H₆O)_nH (n and m are 1 to 5); R₅, R₆, R'₅ and R'₆ are 16-18C alkyl, alkenyl or -hydroxyalkyl gp.; X(-), X'(-), Y(-) and Y'(-) are anions. A:B is 98:2-50:50; C:D is 98:2-50:50; A-B:C-D is 30:70-90:10 (by wt.).

(2) consists of polyoxyethylene alkyl sulphate of formula



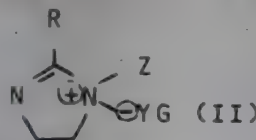
$R_9O(CH_2CH_2O)_nSO_3(-)Z_1(+)$ or salt thereof or sulphonic acid of formula $R_1O_3SO_3(-)Z_2(+)$ or salt thereof. R_9 is 8-22C alkyl or alkenyl gp.; R_{10} is 8-22C alkyl or monohydroxyalkyl gp.; $Z_1(-)$ and $Z_2(+)$ are H, Li, Na, K, ammonium, alkanolamine or lower alkyl ammonium ion; n is 1 to 5.

The agent imparts slipping property to woven and knitted fabrics made of synthetic fibre and its blend with cotton. (9pp)

SUNZ D25 57810 C/33 = J8 1043-276
Detergent compsn. causing no ocular irritation - contg. anionic surfactant and amphoteric imidazolidine surfactant
SUN STAR HAMIGAKI K 22.12.78-JP-160544
E19 (12.10.81) *J55086-893 C11d-01/29 + A61k-07/06 C07c-143/12

22.12.78 as 160544 (126BZ)
Detergent compsn. comprises mist. of anionic surfactant of formula $R_1R_2CH-O(CH_2CH_2O)_n-OCCH(SO_3M)CH_2COOM$ (I) (where R_1 is 7-18C alk(en)yl; R_2 is 1-10C alk(en)yl, and the sum of the number of the carbon atoms of R_1 and R_2 is 8-28; n is 0-20 and M is alkali(ne earth) metal, NH_4 , or alkanolaminium), other anionic surfactants and amphoteric surfactants. Compsn. pref. contains 1-80 wt.% (I).

Compsn. pref. contains imidazoline amphoteric surfactants of formula (II), R is 4-18C opt. unsatd. hydrocarbyl and G is OH or acidic gp of anionic surfactant and (i) Y is $R'OX$ and Z is RCO_2X , (ii) Y is $R'ORCO_2X$ and Z is $RCCO_2X$; or (iii) Y is $R'OX$ and Z is $CH_2CHOH-CH_2SO_3X$ (where R' is 1-4C alkylene group; R is same as R' , or hydroxy alkylene; and X is a cation derived from H, alkali(ne earth) metal, NH_4 , or alkanolamine); and N acylamino salt anionic surfactant(s) of formula $R_3CON(CH_3COOX, R_4CON(CH_3)CH_2CH_2COOX, R_5CONHCH(CH_2CH_2COOX')COOX$ (where R_3-5 are more than 12C opt. unsatd. aliphatic hydrocarbyl and X' and X are cations derived from H, alkali(ne earth) metal, NH_4 , or alkanolamine). The proportion (by wt.) of (I) to imidazoline amphoteric surfactant in the detergent compsn. is 10:90-90:10, and the proportion (by wt.) of the mixt. of surfactants to N -acylaminoacid salt anionic surfactant is 20:80-80:20. (J55086893) (11pp)

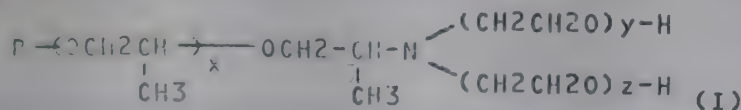


TEXC D25 20043 B/11 = J8 1043-277
Surface active agents prepd. from specified alkanol - by propoxylation, amination, then ethoxylation of amine obtd.

TEXACO DEV CORP 12.09.77-US-832150
A97 E16 (A25) (12.10.81) *BE-870-412 B01f-17/46 C07c-93/04 C11d-01/66
07.06.78 as 067871 (597MR)
New surfactants have formula (I) where R is 8-18C alkyl; x has an average value of 0-4; y and z have average values such that $y+z$ is 2-20, provided neither y nor z is O.

The cpds. are prepd. by propoxylation of alcohols $R-OH$, followed by amination with ammonia, and ethoxylation of the amine obtained.

The cpds. are used e.g. as detergents, dispersants, wetting agents, and emulsifiers. Compared with known similar cpds., they give a reduced wetting time, they have a lower surface tension in aq. soln., and also have a lower pour point. (J54043890) (5pp)



KAOS D25 59331 C/34 = J8 1043-278
Liq. detergent compsn. - contg. polyoxyethylene alkyl ether nonionic surfactant, anionic surfactant and tocopherol as antioxidant

KAOSOAP KK 26.12.78-JP-163698
A97 (12.10.81) *J55089-398 C11d-03/20 + C11d-01/72
26.12.78 as 163698 (126BZ)
Compsn. contains 1-40 wt.% polyoxyethylene alkylether non-ionic surfactant (I); 0.0005-0.1 wt.% tocopherol; and 0-40 wt.% anionic surfactant (II). (I) is pref. a sec. alcohol ethoxylate prepd. by condensing 4-20 mole (on average) ethylene oxide with 1 mole 6-16 C (on average) opt. branched sec. alcohol. Content of tocopherol is pref. 0.001-0.05 wt.% (II) is pref. sulphate or sulphionate.

Typical compsn. contains 25 wt.% sec. alcohol ethoxylate ($R-13$; P is 12; R is ave. number of C atoms in the alkyl gp; P is ave. number of added ethylene oxide in mole); less than 0.02 wt.% antioxidant are balance water. When tocopherol is used as the antioxidant, detergent stored at 50 deg.C for 20 days in a glass bottle exhibited no odour whereas the same liq. detergent contg.

other antioxidant or no antioxidant had undesirable odour. Prod. exhibited no discolouration after the same storage treatment. Either natural or synthetic tocopherol may be used.

Deterioration of odour of detergent contg. (I) is prevented. (J55089398) (6pp)

FARH D25 45714 B/25 = J8 1043-279
Washing powder with improved detergent auxiliary - comprising aminoalkane di-phosphonic acid cpd. N,N di:subst. by carboxymethyl

HOECHST AG 19.12.77-DE-756516
A97 E11 (12.10.81) *BE-872-852 C11d-03/36 + C07f-09/38
15.12.78 as 154293 (597MR)
The washing and cleaning products contain 0.2-5 % of diphosphoric acid cpd. of formula (I)

$R-C(PO_3H_2)_2-N(CH_2COOR)_2$ (I)
in which R is H or methyl and R_1 is H, alkali metal or NH_4 .
The detergence auxiliary cpds. unlike previously proposed cpds., can be prepd. from readily available materials, are very soluble and have an increased detergence power enabling lower concns. to be used.

The products pref. contain 0.2-5% of the above cpds. 15-30% of an alkali metal triphosphate, 6-25% of at least surfactant, and 30-78% of at least one washing auxiliary or of another detergence auxiliary. Specified surfactants are dodecyl benzene sulphonate, a tallow alkyl fatty alcohol 11 times ethoxylated, or a scrap of hardened tallow.

Specified additives are sodium tripolyphosphate, magnesium and sodium silicates, sodium perborate $4H_2O$, sodium sulphate, and CMC. (J54090309) (7pp)

CHPR. D25 60999 V/34 = NL-168-116
Alkaline bromine complex washing agents - of polyphosphates have good cleaning and disinfecting action

INST CHEMII PRZEMYS 14.02.73-PL-160733 (07.02.73-PL-160632)
B06 C03 E11 P34 (D22) (16.10.81) *NL7401-692 A01n-59/26
07.02.74 as 001692 (913TM)

Disinfectant contg. active halogen and alkali polyphosphate is produced by reacting 2 mols alkali polyphosphate at 0-50 deg.C with (a) not more than 1 mol IBr or $IBr_2(-)$ ions, or with (b) not more than 1 mol of a reaction prod. of 2 mols non-ionic polyalkylene oxide detergent and not more than 1 mol of IBr or $IBr_2(-)$ ions.

Pref. the polyphosphate-active halogen complex formed is stabilised with an alkali(ne earth) bromide or chloride. The disinfectant is free of allergic, toxic, corrosive, staining problems associated with preps. contg. free halogen.

The prod. is used as a decontaminant and disinfectant, suitable for the prophylaxis and therapy of respiratory and lung infections, and for washing and disinfecting appts. in hospitals and the food industry. (3pp)

UNIL D25 84988 X/46 = NL-168-262
Aq. detergent compsn. contg. sodium-tripolyphosphate - stable to storage and easy to dilute

UNILEVER NV 29.04.75-GB-017789
A97 E12 (16.10.81) *BE-841-303 C11d-03/06
26.04.76 as 004403 (913NS)
Water-based, builder-fortified liq. detergent comprises (a) an anionogenic wash-active cpd., (b) a non-ionogenic wash-active cpd., (c) K soap, (d) phosphate builder, and (e) 0.1-2 wt.% neutralised copolymer of maleic anhydride with vinyl-methyl ether, ethylene or styrene, partially esterified with a non-ionogenic wash-active cpd., the copolymer having a viscosity of 0.1-4.5 (1 g. in 100 ml. MEK at 25 deg.C).

The components used are (a) 3-12 (pref. 6-8) wt.% potassium alkyl-benzene-sulphonate with 10-18C in the alkyl chain, (b) 0.5-5 (pref. 2-4) wt.% condensation prod. of alkylene oxide and an organic hydrophobic radical, (c) 2-8 (3-6) wt.% K soap of 8-22C fatty acid or its polymer, (d) 15-25 (15-20) wt.% sodium triphosphate, and (e) 0.1-2 (0.3-1.5) wt.% copolymer. (6pp)

HENK D25 86153 A/48 = NL-168-268
Rinsing prod. for dish washing machines, contg. draining cpd. - which comprises reaction prod. of sugar cpd. and polyglycol ether

HENKEL KG AUF AKTIEN 28.05.77-DE-724350
A97 + P43 (A25) (16.10.81) *BE-867-523 C11d-03/22
09.05.78 as 004964 (913NS)
Water-contg. rinse for dish washing machines contains an ingredient for facilitating draining. The ingredient is the acid-catalysed reaction prod. of reducing 5 or 6C monosaccharide or its derived oligosaccharides with up to 4 monosaccharide units and polyglycol ethers of average mol. wt. 190-450. The components are in the molar ratio of 1:0.4-1.5.

Pref. the ethers have a mol. wt. of 300-400, and the molar ratio

of monosaccharides:ethers is 1:0.75 and oligosaccharides 1:1.4. The rinse contains 15-60 wt.% of the ingredient, of which up to 50% may be replaced by a weakly-foaming, non-ionic surfactant. The rinse may also contain 5-40 wt.% of 2-6C organic hydroxycarboxylic acid, up to 30 wt.% alcoholic solvent and 0.05-1.0 wt.% preservative(s), all based on the total rinse.

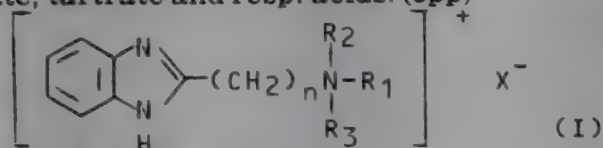
The rinse is biodegradable, and has low toxicity to water-living organisms. (9pp)

PROC D25 63110 T/40 = NL-168-281
Textile softening compsns - contg quaternary ammonium benzimidazole in cationic and zwitterion form

PROCTER & GAMBLE CO 12.03.71-GB-006699
E13 F06 (16.10.81) *DE2211-576 C11d-01/62 D06m-13/46
10.03.72 as 003245 (913NS)

Textile softening prepn. contains a quat. ammonium benzimidazole (I), where either (A) R1 is 14-22C alkyl, or alkyl-phenyl or alkyl-benzyl (with 8-16C in the alkyl chain), and R2 is 1-6C alkyl, or hydroxyalkyl (opt. alkoxylated by (C2H4O)mH, where m is 1-20), or (B) R1 and R2 are both 10-22C alkyl, or alkyl-phenyl and alkyl-benzyl as above; and R3 is 1-6C (hydroxy)alkyl as above; n is 1-4; and X is an anion. The prepn. contains a pH buffer, such that an aq. soln. contg. 0.1 wt.% (I) has a pH below the pKa-value of (I).

Pref. the soln. has a pH at least 2 units below the given pKa value. The buffer used is a water-soluble phosphate, carbonate, borate, citrate, tartrate and resp. acids. (5pp)



VLAS/ ★ D25 83226 D/45 ★ SU-804-621
Sepn. of aromatic from non-aromatic hydrocarbon(s) - by extn. at elevated temp. with selective solvent contg. mono- or di-ethylene glycol, di-methyl acetamide and mono-ethanol-amine

VLASENKO V E 05.02.79-SU-718700
E14 H02 (18.02.81) C07c-07/10 C07c-15/02
05.02.79 as 718700 (938GW)

Aromatic hydrocarbons are used in mfr. of styrenes, phenols, cyclohexane, synthetic detergents, etc. These cpds. are sepd. from non-aromatic hydrocarbons by extracting mixt. with a mixed organic solvent contg. diethylene glycol or triethylene glycol and dimethyl acetamide in (3.25-8):1 wt. ratio.

The extn. of the hydrocarbon mixt. is conducted at 100-150 deg.C using the mixed extractant contg. 7.5-15 wt.% of stabiliser to prevent the decomposition of dimethyl-acetamide.

The process stability is increased with high selectivity maintained up to 150 deg.C. if 2% aq. monoethanolamine is used as the stabilising additive. Bul. 6/15.2.81. (4pp)

UNIL ★ D25 83325 D/45 ★ US 4295-845
Pretreatment of stained fabrics before laundering - with compsns. contg. a fatty acid ester and opt. surfactant

LEVER BROTHERS CO 19.05.80-US-151227 (18.06.79-US-049774)

A87 E17 (20.10.81) C11d-03/46 C11d-07/26 D06l-01/02
19.05.80 as 151227 Div.ex.049774-18.6.79 (478NS)
Pre-laundering treatment of stained fabrics uses a compsn. contg. no H2O, and one or more esters (I). (I) is prepd. from an 8-22C fatty acid (II); and a 1-4C alcohol (III), or a polyethylene or

polypropylene glycol (i.e. a diester). Compsn. is suitably part of a detergent compsn. contg. 25-100 (50-90) % (I); together with 0-60% (0-50)% conventional anionic surfactant and 0-75 (0-50)% conventional nonionic surfactant.

Method effectively removes stains (esp. greasy soils) from fabrics, partic. polyester-contg. fibres. (6pp)

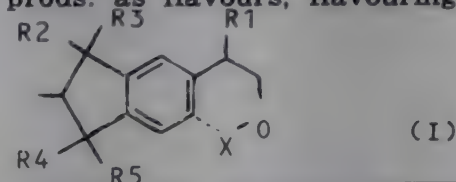
INFL ★ D25 83380 D/45 ★ US 4295-978
Drier-added fabric softening articles - with hydroxy-indane or isochroman deriv. added to give musk aroma

INT FLAVORS & FRAGR INC 13.11.80-US-206651 (03.08.79-US-063374)

E13 (20.10.81) D06m-13/18 D06m-15
13.11.80 as 206651 Div.ex 4250200 (1248BZ)

Drier-added fabric softening article comprises a substrate, a substrate coating of water-dissolvable paper and an outer coating over it and comprising 0.05-5% of a hydroxyindane or isochroman deriv. of formula (I). (X is H, Me or CH2; the broken bond is either a single bond (when X is CH2) or is absent (when X is H or Me); R1 is H or Me; and R2-R5 are H, Me or iPr. Provided that R2 and R3 are Me when R4 is H and R5 is iPr, or R4 and R5 are Me when R2 is H and R3 is iPr).

Cpds. (I) impart musk-like and other aromas to the softening article. The use of (I) for imparting flavour and aroma characteristics to foodstuffs and perfumes is described in U.S. 4250200 (Der. 15518 D/09). They may also be added to chewing gum, medicinal prods. as flavours, flavouring compsns. etc. (26pp)



HENK D25 73730 C/42 = US 4296-235
Purifying cold water-soluble cellulose ether - from alkali halide, by suspending in aq. poly:basic (in)organic salt solns.

HENKEL KG AUF AKTIEN 29.03.79-DE-912486
A11 (A97) (20.10.81) *DE2912-486 C08b-11/20

03.03.80 as 126901 (918KB)
Cold-water soluble cellulose ethers contg. alkali metal halides is purified by suspending cold-water-soluble cellulose ether crude reaction prod. contg. 25 wt.% or more alkali metal halides in an aq. soln. contg. 4-25 wt.% one or more water-soluble salts with agitation at 10-50 (pref. 15-30) deg.C. The purified cellulose ether solids are sepd. and the suspending and sepg. steps may be repeated.

The cellulose ethers are methyl and/or ethyl cellulose, ethyl/hydroxyethyl cellulose, mixed ethyl/hydroxy-propyl cellulose or missed ethyl/dihydroxypropyl cellulose. The water soluble salt is alkali metal sulphate phosphate, silicate or carbonate.

The resulting prod. can be used in washing and cleansing compsn. slurries for spray-drying. (4pp)

See Also

D16 NL 168264

D23 DD 150051

- ABBO 11.01.71 ABBOTT LABORATORIES B03 D22 = DS 2200-940
9-substituted erythromycin a and b oximes - 49319T/31
- ABBO 03.12.79 ABBOTT LABORATORIES B04 D16 = J5 6121-499
Alpha-hydroxy tripeptide substrates - 07651D/05
- ADIB/14.03.80 ADIBI S A B05 D13 = SE 8101-585
Nutritional soln. contg. di- or tripeptide cpds. - 53481D/30
- AGEN 18.02.77 AGENCY OF IND SCI TECH D15 = J8 1042-986
Adsorptive treatment of organic effluent - 73667A/41
- AGEN 21.04.77 AGENCY OF IND SCI TECH D15 E13 = J8 1042-990
Removing formaldehyde from waste water - 92168A/51
- AGEN 12.05.78 AGENCY OF IND SCI TECH D15 = J8 1042-998
Treating waste water from thermal decomposition of solid wastes - 00719C/01
- *AGEN 27.02.80 AGENCY OF IND SCI TECH A14 D15 F01 J01 (A88) *J5 6123-408
Hollow acrylonitrile copolymer fibre prodn. - 82685D/45
- *AGRI= 21.02.79 AGRIC MICROBIOL RES C03 D16 *SU -804-616
Cultivation of leguminous plants - 83222D/45
- *AGRI= 13.08.79 AGRIC ELECTRIF RES D14 *SU -803-933
Straw heat-treatment equipment for animal feedstuff prodn. - 82995D/45
- AGRO- 29.04.80 AGROBER MEZOGAZDASA D22 = GB 2074-528
Conveyor for continuous can steriliser, esp. hydrostatic - 66090D/37
- AIRP 12.04.76 AIR PRODUCTS & CHEM INC D15 = J8 1042-997
Activated sludge treatment of phosphate-contg. aq. effluent - 55841Y/32
- AIRR 30.05.78 AIRCO INC D12 = CA 1110-106
Two-stage cooling of bacon slabs - 88071B/49
- *AJIN 27.02.80 AJINOMOTO KK B03 D13 E13 *J5 6121-453
Sepn. of stevioside and rebaudioside A - 82358D/45
- *AJIN 27.02.80 AJINOMOTO KK B03 D13 E13 *J5 6121-454
Sepn. of stevioside and rebaudioside A extracted from Stevia plant - 82359D/45
- *AJIN 27.02.80 AJINOMOTO KK B03 D13 E13 *J5 6121-455
Crystallisation sepn. of stevioside-rebaudioside A mixt. - 82360D/45
- *AJIN 28.02.80 AJINOMOTO KK B05 D16 E14 *J5 6121-492
L-Phenylalanine prepn. - 82368D/45
- *AKOR= 23.04.79 AS KAZAORG CATALYST A41 D23 E14 *SU -804-624
Prod. of unsatd. alcohol(s) for plastic and perfume mfr. - 83229D/45
- *ALBA- 19.09.78 ALBANY INT CORP A88 D15 J01 *EP --38-611
Hollow filament separatory module - 81937D/45
- *ALBA- 19.09.78 ALBANY INT CORP A88 D15 J01 *EP --38-612
Hollow filament separatory module - 81938D/45
- *ALDE/ 09.04.80 ALDER E D23 E15 (D21 D25) *DD -150-051
2-Alkyl-cyclopentenone perfume prepn. - 81713D/45
- ALFA 08.09.70 ALFA-LAVAL AB D13 X25 X26 = US RE30-780
Sterilising/pasteurising - 18790T/12
- ALFA 26.12.74 ALFA LAVAL D15 (D23) = IT 1052-642
Treatment of raw wool washing water - 83614X/45
- *ALKU 22.04.80 AKZO GMBH D25 E19 *DE 3015-374
Long-chain substd. urea prepn. - 81771D/45
- ALKU 22.04.80 AKZO NV D25 E19 = GB 2074-574
Long-chain substd. urea prepn. - 81771D/45
- ALZA 28.01.75 ALZA CORP A96 B07 C03 D21 (A23) = AT 7904-197
Biodegradable ortho-ester polymers - 48032X/26
- AMAN 12.12.79 AMANO PHARM KK B04 D16 E17 = FR 2479-261
Determn. of free fatty acids - 63137D/35
- AMCA= 20.07.77 A MED CARDIOLOGY D16 G06 = SU -798-660
Forming visible images by ultrasonic irradiation of ferment plate - 12268B/07
- AMCY 22.04.80 AMERICAN CYANAMID CO D21 E17 (E32 E33) #DE 3015-450
Antiperspirant compsn. contg. aluminium or aluminium-zirconium salts - 47814D/26
- *AMHP 17.03.80 AMERICAN HOME PROD CORP B04 D16 *US 4295-280
Mfg. package contg. lyophilised immunological reagents - 83264D/45
- *AMMA 08.03.66 AMER MACH & FOUNDRY D18 *IT 1052-958
Preventing mould and microorganisms attacking regenerated tobacco - D/45
- *ANIM= 15.08.79 ANIM HUSB FEED MFR D14 *SU -803-935
Animal feed concentrate prodn. equipment - 82997D/45
- *ANIM= 15.08.79 ANIM HUSB FEED MFR D14 *SU -803-936
Granulated animal feedstuff prodn. equipment - 82998D/45
- ANZA/ 23.01.76 ANZAIK D21 E16 = J8 1043-441
Negative mould surface treatment compsn. for dental treatment - 64005Y/36
- APVC 15.02.80 APV CO LTD D14 = DK 8100-448
Vessel for heat treatment of particles - 64412D/36
- ARAI/ 08.03.76 ARAIK D21 = J8 1043-080
Toiletries, e.g. soap, contg. freeze dried egg powder - 75280Y/42
- ARBR- 11.12.74 ARBROOK INC D22 E17 = IT 1052-788
Oxydiacetaldehyde contg. disinfectant compsn. - 48302X/26
- ARCH- 11.04.79 ARCHER RJR INC A97 D18 G03 (A81) = DD -150-000
Tipping paper for air ventilated cigarette - 79202C/45
- ARCH- 11.04.79 ARCHER RJR INC A97 D18 G03 (A81) = US 4295-478
Tipping paper for air ventilated cigarette - 79202C/45
- *ARNO/ 25.03.80 ARNOUX GI D16 *FR 2478-940
Anaerobic fermentation plant to produce fuel gas and fertiliser - 82020D/45
- ASSU- 23.11.79 ASSUT SA A96 D22 F06 (A23) = BR 8008-925
Catgut suture filament - 44034D/24
- ATAK- 06.04.77 ATAKU KENSETSU KOGY D15 = J8 1042-991
Removal of phosphate ions from water - 88700A/49
- *ATCM 25.03.80 ATELIERS ET CHANTIE SOC D15 *FR 2479-437
Vapour condenser partic. for solar powered desalination evaporator - 82077D/45
- BADI 22.04.80 BASF AG D23 E14 (D21) = DE 3015-359
1-(4-Hydroxy-phenyl)-butan-3-one aroma prepn. - 81889D/45
- *BADI 22.04.80 BASF AG D23 E14 (D21) *EP --38-480
1-(4-Hydroxy-phenyl)-butan-3-one aroma prepn. - 81889D/45
- BAKP 19.02.80 BAKER PERKINS HOLDI D11 = DK 8100-655
Travelling baking oven - 62820D/35
- BARB/ 23.04.71 DU BARBAT CH D13 = IT 1052-681
Fresh lemon juice concn - 74415T/47
- *BARD- 21.04.80 ETAB BARDET A SA D15 *EP --38-752
Separator for two immiscible liquids of different densities - 82003D/45
- BARE/ 19.12.75 BAREFOOT B B D15 #IT 1052-598
Sphincter cone assembly for purifying water - 41803X/22
- BAXT 01.11.79 BAXTER TRAVENOL LAB B07 D22 = EP --38-339
Preparing sterile intravenous feed for hyperalimentation of patient - 15658D/10
- BEAF 01.02.80 BEATRICE FOODS CO D13 = US 4296-136
Reconstitutable coconut food-flavouring material prodn. - 62283D/34
- BECI 28.04.77 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 (S05) = GB 1601-771
Kinetic determn. of glucose - 78151A/43
- BEIE 21.09.77 BEIERSDORF AG B05 D21 E16 = US 4296-095
Caries and parodontosis inhibiting dental and/or oral hygiene compsns. - 06142B/04
- BENC 28.10.77 BENCKISER-KNAPSACK D15 E11 F06 (F09) = AT 7807-696
N-Sulpho-hydroxy-alkane amino-alkane phosphonic acids - 35518B/19
- *BENC 29.04.80 BENCKISER-KNAPSACK D13 E34 (E19) *GB 2074-532
Tea-bags made of treated paper - 82140D/45
- *BETA 14.04.80 BETA CORP ST LOUIS D14 T06 X25 *WP 8103-076
Measuring temp. rise of prod. in pellet mill - 83547D/45
- *BILE/ 02.05.79 BILEK P D15 *AT 7903-278
Waste water removing installation - D/45
- *BINE/ 28.03.80 BINEAU G D14 *FR 2478-956
Domestic roasting drum for coffee beans etc. - 82027D/45
- *BINT 12.04.80 BRAUN MELSUNGEN AG A96 B04 D22 *DE 3014-123
Scleroprotein e.g. collagen, keratin or elastin transplants prodn. - 81743D/45
- *BIOK= 27.05.77 BIOKHMREAKTIV BIOCHEM A96 B04 D16 *SU -664-468
Enzyme immobilisation carrier prodn. - 82857D/45
- *BIOT- 01.04.80 LABS BIOTROL SA D22 G03 *FR 2479-002
Adhesive contg. pressure sensitive adhesive and a hydro-colloid - 82032D/45
- *BIOT= 29.05.78 BIOTECH INST D16 G06 M25 *SU -802-909
Silver recovery from photographic processing waste - 82979D/45
- *BLAC= 15.08.79 BLACK EARTH AGRIC D14 *SU -803-935
Animal feed concentrate prodn. equipment - 82997D/45
- *BLAC= 15.08.79 BLACK EARTH AGRIC D14 *SU -803-936
Granulated animal feedstuff prodn. equipment - 82998D/45
- BOEF 14.07.76 BOEHRINGER MANNHEIM GMBH A41 B04 D16 E13 = NL -168-220
Hydroxy-succinimido ester derivs. - 06571A/04
- BOEF 08.08.78 BOEHRINGER MANNHEIM GMBH B02 D16 S03 (B04) = DS 2960-533
Quantitative enzymatic determn. of adenosine di-phosphate - 14875C/09
- BOEF 10.04.79 BOEHRINGER MANNHEIM GMBH A96 B04 D16 = DD -150-115
Removal of ascorbic acid from aq. solns. - 77368C/44
- BOEF 05.02.80 BOEHRINGER MANNHEIM GMBH D16 E17 J04 = J5 6121-498
Glycerol enzymatic determination - 60733D/34
- *BOLD/ 13.05.74 BOLDT W A D13 *US 4296-134
Yolk-fat and cholesterol-free liq. fresh egg prods. - 83447D/45
- *BONT/ 10.04.79 BONTEMPS R D21 *FR 2478-997
Cosmetic prod. in the form of frozen tablet - 82030D/45
- BRIM 06.11.72 BRISTOL MYERS CO B03 C02 D13 = J8 1043-480
Gentamycin derivs. and addition salts thereof - 22772V/12
- BRIM 19.04.78 BRISTOL MYERS CO D21 E17 = CA 1110-171
Antiperspirant stick compsns. - 80632C/45
- BRPE 05.04.78 BRITISH PETROLEUM LTD A88 D15 H05 J01 = EP G004-724
Coalescer cartridge for removing contaminants from liquids - 75703B/42
- *BUHL 30.04.80 BUHLER GEBR AG D13 J02 T06 X25 (D21) *GB 2074-761
Control of gap width between two rolls - 82192D/45
- BURN- 13.12.77 BURNS FOODS LTD D12 #CA 1110-102
Multiphase meat, esp. bacon, analogue prepn. - 27166C/15
- *BUTL- 18.04.80 BUTLAND INDS LTD D13 *GB 2074-435
Treating of cheese offcuts - 82117D/45
- *CASM 18.04.80 CASTLE & COOKE INC A97 D16 *EP --38-457
Casing compsn. for mushroom cultivation - 81882D/45
- CESK 22.12.79 CESKOSLOVENSKA AKAD A91 D15 J01 M25 = J5 6120-710
Polymeric chelating agent - 53797D/30

- CETU-14.03.80 CETUS CORP B05 D13 E14 = NO 8100-851
Aspartame prodn. from synthetic polypeptide - 72133D/40
- CHAL 12.12.77 MACH CHAMBON D17 = AT 7808-762
Drying tunnel esp. for moulded moist sugar lumps - 24008B/13
- *CHCC 06.03.80 CHISSO CORP C03 D13 E17 (D23) *J5 6123-929
N-Hexenyl aldehyde purificn. by mixing with radical generator - 82791D/45
- *CHCC 06.03.80 CHISSO CORP C03 D13 E17 (D23) *J5 6123-930
N-Hexenyl-aldehyde sepn. from mixt. - 82792D/45
- *CHFS 27.12.78 CHEM FAB STOCKHAU A14 D15 F09 *EP --38-573
Polymers of N-substd. unsatd. carbonamide(s) - 81923D/45
- CHIM-27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) = EP G003-318
Terpene(s) steam-distilled from aromatic plants - 40655B/22
- CHIN 01.07.77 CHINOIN GYOGYSZER A97 D13 (A11) = AT 7804-652
Food flavours contained in cyclodextrin complex - 78426A/44
- CHIN 18.02.80 CHINOIN GYOGYSZER A97 D13 = DK 8100-694
Flavouring tea using granules of suspensions - 47846D/27
- CHIY 26.10.74 CHIYODA KAKO KENSET D15 J04 = US 4295-967
Continuous countercurrent fluidised bed - 37402X/20
- CHPR-07.02.73 INST CHEMII PRZEMYS B06 C03 D25 E11 (D22) = NL -168-115
Alkaline bromine complex washing agents - 60999V/34
- *CHSC-17.04.80 CHEM INST SCHAFER B05 D21 E19 (B03) *EP --38-512
Amphoteric ammonium carboxylate or phosphate complexes - 81897D/45
- CIBA 09.09.77 CIBA GEIGY AG B05 D21 E14 = AT 7903-706
2-Phenylamino phenyl acetyl amide(s) - 82116A/46
- CIBA 08.08.78 CIBA GEIGY AG C03 D22 E14 F06 (F09) = DS 2960-538
3,4,5-Tri-halo-phenol ester(s) - 15066C/09
- CIBA 27.03.80 CIBA GEIGY AG C02 D22 E13 F09 (D15) = FR 2479-215
4-halo-4-substd.-methyl-oxetane-2-one derivs. - 74341D/41
- *CIGA 21.04.80 CIGARETTE COMPONENT LTD D18 *BE -888-506
Tobacco smoke filters made from specified paper - 81674D/45
- CLGE 01.02.79 COLLAGEN CORP B04 D22 S03 (S05) = CA 1110-035
Sterilising proteins by microwave treatment - 64609C/37
- *CNRS 22.04.80 INST NAT SANTE RECH MED B04 D16 *EP --38-765
Transforming cells with hepatitis virus DNA - 82010D/45
- COLG 31.10.74 COLGATE PALMOLIVE CO D22 = CA 1110-007
Disposable baby's nappy with elastic belt and adhesive band - 26477X/15
- COLG 13.12.74 COLGATE PALMOLIVE CO D22 E33 = IT 1052-568
Dentifrices contg alkaline alpha-alumina trihydrate - 36019X/20
- COLG 15.01.75 COLGATE PALMOLIVE CO A96 B05 D21 E11 = IT 1052-935
Toothpaste or dental hygiene composition - 44105X/24
- COLG 15.01.75 COLGATE PALMOLIVE CO B05 D21 E11 (E33) = IT 1052-936
Dentifrice paste contg alpha alumina hydrate - 44092X/24
- COLG 19.08.76 COLGATE PALMOLIVE CO D22 = AT 7705-961
Tape fastener for disposable diaper - 68422Y/38
- COLG 10.08.77 COLGATE PALMOLIVE CO D22 = CA 1110-006
Baby's disposable napkin with adhesive securing straps - 87884A/49
- COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 = US 4296-096
High viscosity dentifrice compsn. contains anionic polyelectrolyte - 80741C/46
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 = J5 6122-307
Buccal hygiene compsn. contg. tranexamic acid and peroxy-di-phosphate - 42128D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO A96 B05 D21 = J5 6122-308
Buccal hygiene compsn. contains tranexamic acid and a flavour - 42127D/24
- COLG 31.01.80 COLGATE PALMOLIVE CO B05 D21 (B02) = J5 6122-314
Anti-gingivitis oral compsn. - 47730D/26
- CORP 15.02.80 CPC INTERNATIONAL INC B04 D16 = DK 8100-628
Recombinant DNA contg. amylase coding gene - 62878D/35
- CORP 18.04.80 CPC INTERNATIONAL INC D23 = EP --38-678
Prepn. of high quality crude corn oil - 80335D/44
- CORR 18.04.80 CORNELL RES FOUNDATION B04 C03 D16 = WP 8102-978
Protecting dogs against canine parvovirus - 64204D/36
- COUS/14.01.74 COUSIN C D23 = DS 2501-082
Fat compsn. with quasi-vitreous structure - 47687W/29
- *CSIR 22.04.80 COMMONWEALTH SCIENT ORG B03 C02 D22 E13 *WP 8103-020
Substd. 1,3,5-triazine derivs. prodn. - 83533D/45
- *CUET/28.02.80 CUETKOE D11 *FR 2478-950
Special bread based on wheat and rye flour - 82022D/45
- CUNN/13.02.76 CUNNINGHAM J D15 E33 J01 M11 = J8 1043-120
Removal of chromium from aq. effluents - 59648Y/34
- CURT-15.02.80 CURTIS H INDS INC A96 D21 (A14) #DK 8000-676
Water-based creme rinse compsn. for hair - 51483C/29
- *DAAB 28.02.80 SHIONO KORYO KK D23 E13 *J5 6120-678
Octanoic acid lactone(s) - 82249D/45
- DAIK 18.08.77 DAIKIN KOGYO KK D15 = J5 4033-355
Heavy metals-contg. waste waters treating appts. - 82799D/45
- *DAIK 18.08.77 DAIKIN KOGYO KK D15 *J8 1042-993
Heavy metals-contg. waste waters treating appts. - 82799D/45
- *DAIL 28.02.80 DAICEL CHEM INDS LTD D16 E17 *J5 6121-489
Long chain dicarboxylic acid prepn. - 82365D/45
- *DEAK 20.04.80 AKAD WISSENSCHAFT DDR A32 D15 J01 (A14 A88) *DD -150-067
Acrylonitrile polymer sepn. membrane - 81716D/45
- *DEDE/21.04.80 DEDENON J M D16 *EP --38-759
Anaerobic fermentation plant - 82007D/45
- DEDE/21.04.80 DEDENON J M D16 = WP 8103-030
Anaerobic fermentation plant - 82007D/45
- DEGM 26.03.80 DEGREMONT SA D15 J01 = FR 2479-011
Water filter with water distribution gutter - 74195D/41
- DENE/09.04.80 DENECKE P D13 E17 (D23) = DD -150-064
Prepn. of poly:glycerol ester(s) of poly:ricinoleic fatty acids - 76374D/42
- DENL-10.12.74 DENLEY TECH LTD D16 J04 S03 S05 = IT 1052-542
Delivery and withdrawal appts. for liq. - 48020X/26
- *DFOR-21.04.80 DE FORENEDE BRYGGER B04 D16 *EP --38-393
Recovering enzymes from isolated blood cells - 81868D/45
- DMVC-28.03.80 DMV CAMPINA BV D13 = FR 2478-951
Cheese mfr. - 74297D/41
- *DNII 27.02.80 DAINIPPON INK INST CHEM B05 D23 E19 *J5 6120-626
Selective redn. of acetylenic organic cpds. - 82216D/45
- *DNII 27.02.80 DAINIPPON INK INST CHEM B05 D23 E19 *J5 6120-627
Selective redn. of cpds. having acetylenic unsatd. bonds - 82217D/45
- DNIN 20.02.78 DAINIPPON INK CHEM KK B02 D16 E12 = J8 1043-237
Fermentative prodn. of vitamin/B12 - 11599C/07
- DNIN 06.12.78 DAINIPPON INK CHEM KK D13 E24 = J8 1043-357
Highly pure alcohol-resistant phycocyanin prepn. - 52526C/30
- *DNIN 27.02.80 DAINIPPON INK CHEM KK B05 D23 E19 *J5 6120-626
Selective redn. of acetylenic organic cpds. - 82216D/45
- *DNIN 27.02.80 DAINIPPON INK CHEM KK B05 D23 E19 *J5 6120-627
Selective redn. of cpds. having acetylenic unsatd. bonds - 82217D/45
- DOKO/15.03.80 DOKOUPIL J D18 = NO 8100-783
Leather stretching and drying device - 72111D/40
- DOLO-23.04.80 DOLOKEMIA VEGYIPARI C03 D13 #DE 3015-616
Non-hygroscopic easily grindable cupric sulphate mono:hydrate - 80713C/46
- DORI/23.11.79 DORING E D16 = DS 2947-297
Compost bin for domestic and garden refuse - 40408D/23
- DOWO 17.12.79 DOW CORNING CORP A96 D22 (A26) = BR 8008-981
Silicone-gel filled silicone rubber mammary prosthesis - 48111D/27
- *DPAO/27.08.79 DE PAOLIS P U D13 *US 4296-141
Prepn. of conchless high protein chocolate compsn. - 83451D/45
- DRAG-26.06.78 DRAGOCO GERBERDING D23 E15 = AT 7904-431
2,2,3-tri:methyl-cyclopent-3-ene(s) - 02270C/02
- *DSIL/19.11.80 DA SILVA J C D22 *BR 8007-541
Protective paste mfr. - D/45
- DSOP 06.12.77 DSO PHARMACHIM B04 D16 (D21) = AT 7808-712
Yoghourt lyophilisate for cosmetic and pharmaceutical use - 45939B/25
- DUPO 25.01.77 DU PONT DE NEMOURS CO D13 = CA 1110-103
Texturising a mycelial mass - 55408A/31
- DUPO 22.12.78 DU PONT DE NEMOURS CO D25 J04 (J01) = CA 1110-041
High surface area poly:aluminosilicate(s) - 53809C/31
- DUPO 20.02.80 DU PONT DE NEMOURS CO A88 D15 = DK 8100-741
Water desalination by falling-film evaporator - 66392D/37
- DUPO 18.04.80 DU PONT DE NEMOURS CO A88 D15 J01 (A23) = EP -38-695
Storage of reverse osmosis membranes - 79543D/43
- *DYNM 15.04.80 DYNAMIT NOBEL AG A60 D22 E12 (A14) *DE 3014-291
Biocide for PVC compsns. - 81746D/45
- *DZER= 26.06.78 DZERZHINSK CHEM EQU D15 *SU -803-952
Radial shelf settling tank to clarify water - 83004D/45
- *EAKI/31.05.78 EAKIN T G A96 D22 *GB 1601-735
Surgical drainage bag - 82088D/45
- *EART-05.03.80 EARTH SEIYAKU KK A97 C03 D22 E19 *J5 6123-907
Fungicidal compsn. - 82781D/45
- EAST 02.09.77 EASTMAN KODAK CO A96 C03 D13 = CA 1110-167
Pill for ruminants resistant to conditions in the rumen - 24176B/13
- EAST 09.09.77 EASTMAN KODAK CO A14 D21 G03 (A96) #GB 1601-764
Adhesive compsns. based on allyl 2-cyanoacrylate - 07933B/04
- *EAST 17.04.80 EASTMAN KODAK CO B04 D16 *EP --38-753
Lactate oxidase inhibition - 82004D/45
- *EAST 18.04.80 EASTMAN KODAK CO B04 D16 *EP --38-529
Compsns. for neuraminic acid assay - 81901D/45
- *EBAI 29.02.80 EBARA INFILCO KK D15 E31 J01 *J5 6121-685
Treatment of iron and manganese ions contg. liquor - 82412D/45
- *EGOR-25.04.80 EGO REGELTECH GMBH D11 T06 X25 (X27) *DE 3016-032
Baking oven control switch - 81818D/45
- ELCL 03.01.75 UK ELECTRICITY COUNCIL D15 J03 M11 X25 = IT 1052-773
Electrolytic treatment of dilute cyanide solutions - 56287X/30
- *ELED 25.02.80 DENKI KAGAKU KOGYO CO B05 D16 E16 *J5 6121-491
L-Threonine prepn. - 82367D/45
- ELIL 01.07.77 ELI LILLY & CO B04 D16 = GB 1602-073
Mfr. of Streptomyces protoplast which regenerates viable cells - 01894B/02
- ELIL 01.07.77 ELI LILLY & CO A97 B04 D16 = GB 1602-074
Genetic exchange in Streptomyces and Nocardia - 01895B/02

- ELIL 11.12.79 ELI LILLY & CO B02 D16 = J5 6121-493
Microbiological prepn. of mycophenolic acid glucoside - 88322C/49
- ELIL 13.12.79 ELI LILLY & CO B02 C02 D22 = FR 2479-207
Re-acylated derivs. of cyclic peptide antibiotics - 45990D/26
- ELIL 28.01.80 ELI LILLY & CO B04 C03 D16 = J5 6121-486
Narasin prepd. by cultivation of streptomyces lydicus strain - 56971D/32
- ELIL 22.02.80 ELI LILLY & CO B03 D13 E13 = DK 8100-769
Di:hydroxy:phenoxy:tetrazole derivs. - 66394D/37
- ENIE-01.02.80 ENIENTE NAZ IDROCA D16 (D17) = J5 6121-485
Alpha-galacto:oxidase prodn. from *Saccharomyces cerevisiae* - 58793D/33
- ENTR-29.04.80 ENTREMONT SA D13 = GB 2074-601
Producing butter-fat by removing water and protein from butter - 60454D/34
- ERAP 22.02.80 SOC NAT ELF AQUITAI D21 E19 = DK 8100-772
Hydrating agents for keratinic materials - 47865D/27
- ESSO 23.02.77 EXXON RES & ENG CO D15 J01 = GB 1601-671
Gravity separator esp. for oil and water mixt. - 45907A/26
- ETHI 11.12.74 ETHICON INC A96 D22 = IT 1052-543
Surgical needle joint - 48356X/26
- ETHI 11.12.74 ETHICON INC A96 D22 F06 = IT 1052-544
Coating auxiliary surgical materials - 48357X/26
- ETHI 07.01.75 ETHICON INC A96 D22 F06 = IT 1052-894
Completely absorbable surgical suture - 54564X/29
- FABR 21.12.79 FABRE P SA B04 D16 = J5 6123-918
Immunostimulant compsns. contg. ribosomal RNA - 50122D/28
- FARB 04.01.75 BAYER AG A60 C03 D22 E19 (D15 D18) = IT 1052-668
Protecting aq systems against microbial attack - 54391X/29
- FARB 09.03.77 BAYER AG D18 E31 (E34) = GB 1602-043
Chromium tanning material and sodium sulphate decahydrate prepn. - 67216A/38
- FARB 13.09.77 BAYER AG C03 D16 E13 (D13 D17) = CA 1110-189
Continuous sucrose conversion to iso:maltulose - 22393B/12
- FARB 14.02.78 BAYER AG A26 C02 D17 E13 (A25 A60) = AT 7901-126
Modified azulminic acid contg. amino and carboxyl gps. - 61659B/34
- FARB 14.02.78 BAYER AG A26 C02 D17 E13 (A25 A60) = AT 7901-127
Azulminic acid stabilised with carbonyl cpds. - 61658B/34
- FARB 18.04.78 BAYER AG D21 E14 = DS 2960-522
Cosmetic light-protective compsn. - 80936B/45
- *FARB 22.04.80 BAYER AG D16 E36 J01 (D13) *DE 3015-439
Silica gel-contg. active carbon granulate - 81777D/45
- *FARB 26.04.80 BAYER AG A97 C03 D25 J04 *DE 3016-170
Microcapsules with pre-defined release temp. - 81830D/45
- FARH 19.12.77 HOECHST AG A97 D25 E11 = J8 1043-279
Washing powder with improved detergent auxiliary - 45714B/25
- FARH 30.03.79 HOECHST AG A97 D12 = US 4295-563
Sausage-packaging hollow rod assembly - 73745C/42
- FARH 15.02.80 HOECHST AG B04 C03 D13 (D16) = DK 8100-647
Free-flowing solids prodn. from salinomycin culture broth - 62503D/35
- FARM 10.12.76 FARMITAL ERBA C SPA B04 D16 J04 S03 (S05) = CA 1110-165
Immunological determ. of antigens and hapten(s) - 28849A/16
- *FELL/ 21.04.80 FELLA C P B04 D16 S03 (S05) *EP --38-738
Detecting blood group antigens in histological samples - 81996D/45
- *FEPU 23.05.78 DON FERR METAL EFFL D15 *SU -804-577
Processing waste boiler water - 83190D/45
- FERO 21.03.80 FERROSAN B03 D21 = EP --38-785
2- or 3-alkyl 4-hydroxy-alkyl morpholine derivs. - 56987D/32
- FEUR/ 01.04.80 FEURING W D12 = FR 2479-023
High speed cutting mincer for sausage meat etc. - 71617C/41
- *FIGL-09.12.75 OFF MECC FIGLI ANG D13 *IT 1052-987
Shelling and sepg. machine for almonds - D/45
- FILT-11.12.74 FILTRO SA D15 = IT 1052-992
Liquids, esp waste waters, treated with reagents - 35997X/20
- FIRM 26.01.79 FIRMENICH SA D23 E15 = US 4296-258
Macrocyclic acetylenic ketone cpds. prepn. - 57326C/33
- FMCC 23.06.75 FMC CORP D13 = IT 1052-909
Peach repitting machine - 02005Y/01
- *FOLL-11.04.75 DITTA F LLI FOLLI F D11 *IT 1052-999
Dough articles forming and distributing machine - D/45
- *FRAM 16.03.79 FRAM IND FILTER COR D15 J01 *US 4295-973
Sepn. of suspended solids from liq. - 83377D/45
- *FRRN/ 22.12.75 FRRNA P D13 *IT 1052-989
Almond flavoured milk-based drinks prepn. - D/45
- FRRR 21.09.77 FERRERO P & CIA SPA D13 = AT 7806-787
Filled floatable spherical food prod. - 08058B/05
- FUJC 12.09.73 FUJI CHEMICAL IND KK B04 D16 = J8 1043-718
Basic antibiotic purification - 66304W/40
- FUJI 27.07.76 FUJISAWA PHARM KK B05 D16 = AT 7705-509
Hydroxyamino-alk(en)yl-phosphonic acid (derivs.) - 84781Y/48
- *FUJI-26.02.80 FUJI FLAVOUR KK D18 E13 *J5 6121-477
Enhancing taste and flavour of tobacco - 82361D/45
- FUJI/ 28.03.79 FUJII T D13 = J8 1043-331
Citrus fruit jam prepn. - 81754C/46
- FUTK 10.03.73 FUTABA DENKI KOGYO D12 = NL -168-117
Automatic sausage filling machine - 68197V/39
- *GECO= 27.11.78 GEN CONSUM TECH BUR D14 *SU -776-595
Vegetables esp. mushrooms sorter - 82878D/45
- GEES/ 20.02.80 GEESINK B T A88 D13 = DK 8100-677
Plastic mould or follower for cheese - 66364D/37
- *GEFL-08.04.80 VEB GEFLUGELWIRTS D12 *DD -149-998
Poultry heading machine - 81704D/45
- GENE-31.03.80 GENERALIMPEX MAGYAR D18 F01 = FR 2479-264
Treating skins and furs to remove and recover the hair - 58809D/33
- GENM 06.04.77 GENERAL MILLS INC D14 = GB 1601-865
Rotary valve feeding food treatment chamber - 45566B/24
- GENO 11.09.69 GENERAL FOODS CORP D13 E13 = NL -168-121
Improvements in the flavour of foodstuffs - 20147S/11
- GENO 23.12.74 GENERAL FOODS CORP A97 B05 D13 E19 = IT 1052-609
Artificial sweeteners resembling sugar - 53465X/28
- GENO 01.11.77 GENERAL FOODS CORP D13 = CA 1110-104
Free-flowing coffee agglomerate leaving no sediment - 35665B/19
- GENO 13.02.79 GENERAL FOODS INC D15 (D17) = CA 1110-188
Treatment of waste water contg. starch etc. - 88811C/50
- *GENO 13.03.80 GENERAL FOODS CORP C03 D13 *US 4296-132
Improved palatability nutritionally balanced dog food - 83446D/45
- *GENO 22.09.80 GENERAL FOODS CORP D13 *US 4296-026
Prepn. of soybean protein isolate of improved purity - 83405D/45
- GIVA 05.12.73 GIVAUDAN L & CIE SA D23 E14 = NL -168-203
1,1,3,4,4,6-Hexamethyl-1,2,3,4 tetrahydronaphthalene prodn. - 01885W/01
- GIVA 08.09.78 GIVAUDAN L & CIE SA D13 E13 (D23) = DS 2960-514
2-Methyl-2-vinyl-5-substid. hexenyl-tetra:hydro furan derivs. - 33030C/19
- GKSS-11.04.80 GKSS-FORSCH GEESTHA D15 = EP --38-402
Organic cpd.-contaminated waste water purificn. - 62553D/35
- *GLAX 22.04.80 GLAXO GROUP LTD D16 *EP --38-706
Adding small volume nutrient to fermentation vessel - 81982D/45
- GLSM 05.11.79 MARVIN GLASS & ASSOC D13 = GB 2074-536
Flat disc confectionery novelty - 40173D/22
- GOOR 26.12.79 GOODRICH B F CO A14 D22 F01 (A96) = BR 8009-002
High liquid absorption acrylic polymer prepn. - 30838D/18
- GOUP/ 04.04.77 GOUPIL J J B06 D13 E34 (D21) = GB 1601-658
Chewing gum contg. water soluble fluoride - 58774A/33
- *GRAS= 13.08.79 GRASS STRAW PROC MACH D14 *SU -803-933
Straw heat-treatment equipment for animal feedstuff prodn. - 82995D/45
- GREa-22.04.80 GREAT WESTERN SUGAR D17 = BE -888-493
Ext. of sugar from plant tissue esp. beet - 80339D/44
- GREa-22.04.80 GREAT WESTERN SUGAR D17 = WP 8103-033
Ext. of sugar from plant tissue esp. beet - 80339D/44
- GREC 02.11.77 GREEN CROSS CORP B04 D16 = J8 1043-233
Stabilising urokinase against heat during deactivation of virus - 49825B/27
- GREC 20.03.78 GREEN CROSS CORP A96 B04 D16 = J8 1043-231
Human lysozyme prepn. - 81730B/45
- HAAC/ 28.04.80 HAAK J A D12 = GB 2074-471
Fish-sorting system on board vessel - 35608D/20
- HAAS/ 12.04.79 HAAS F D11 = DD -149-997
Waffle block cutting machine - 79107C/45
- HARV-17.03.80 HARVARD COLLEGE B04 D16 = SE 8101-665
Optimisation of polypeptide prodn. by microorganisms - 55162D/31
- *HASS 28.01.80 HASSLE AB B04 D13 *SE 8000-644
Digestive abnormality regulating compsns. - 82842D/45
- HAYB 15.04.69 HAYASHIBARA CO D17 (D16) = NL -168-270
Prodn. of macromolecular amylose - 78388R/42
- *HAYE/ 24.04.80 HAYER H D13 *DE 3015-712
Casein prodn. from milk - 81796D/45
- HENK 28.05.77 HENKEL KG AUF AKTIEN A97 D25 (A25) = NL -168-263
Rinsing prod. for dish washing machines, contg. draining cpd. - 86153A/48
- HENK 27.06.77 HENKEL KG AUF AKTIEN A97 D18 E33 (D25) = CA 1110-014
Use of alkali metal aluminosilicate(s) for cleaning crude skins - 01896B/02
- HENK 11.07.77 HENKEL KG AUF AKTIEN A96 D23 E17 (A25) = GB 1601-983
Clear, stable solns. of oil-soluble perfume oils - 10055B/06
- HENK 29.07.77 HENKEL KG AUF AKTIEN D23 E13 (D21) = GB 1601-859
2,2,5-Tri:methyl-5-phenyl-1,3-dioxan - 12190B/07
- HENK 16.09.78 HENKEL KG AUF AKTIEN A97 D25 (A25) = EP G009-193
Aq. cleanser soln. for hard surfaces - 23906C/14
- HENK 29.03.79 HENKEL KG AUF AKTIEN A11 D25 (A97) = US 4296-235
Purifying cold water-soluble cellulose ether - 73730C/42
- HENK 05.04.80 HENKEL KG AUF AKTIEN D25 E17 F09 J01 (F06) = DE 3013-391
Foam inhibitor for aq. system, esp. detergent compsns. - 78029D/43
- *HENK 17.04.80 HENKEL KG AUF AKTIEN C03 D22 E16 *DE 3014-765
Amino hydrohalide antimicrobials - 81753D/45
- *HENK 25.04.80 HENKEL KG AUF AKTIEN D21 E14 *DE 3016-008
Oxidn. hair dye compsns. - 81815D/45

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- * HENK 26.04.80 HENKEL KG AUF AKTIEN D21 E14 *DE 3016-216
Oxidn. hair-dye compsn. - 81838D/45
- * HENK 28.04.80 HENKEL KG AUF AKTIEN B05 D21 E11 *DE 3016-289
Omega-amino-1-hydroxy-alkylidene-1,1 bis:phosphonic acids prepn. - 81845D/45
- HERB- 28.04.80 HERBARIA ORSZAGOS D21 E19 (E37) = DE 3039-281
Aq. alcoholic hair growth compsn. contg. horseradish extract - 11777D/08
- HERS/ 30.08.79 HERSCHLER R J B05 C03 D21 E16 (B06 E17 E34) = US 4296-104
Pharmaceutical and cosmetic compsns. contg. DMSO - 21724D/13
- HETB 28.03.80 HEINEKEN TEC BEHEER NV D16 = FR 2479-258
Malt prodn. by treating grain with carbohydrate soln. - 74012D/41
- * HETO 02.03.78 HETEROORG CPDS AS USSR A96 B02 D16 (A13) *SU -804-647
Crosslinked porous styrene polymers - 83249D/45
- HITA 18.10.76 HITACHI KK D15 = J8 1042-995
Anaerobic decomposition of biochemical waste - 30564A/17
- HOFF 05.08.74 HOFFMANN-LA ROCHE AG D23 E19 = NL-168-193
Nickel peroxide prepn by oxidn and drying under inert atmos - 13080X/08
- HOFF 27.03.78 HOFFMANN-LA ROCHE AG D13 E13 (E24) = AT 7902-239
1,4-dioxo-spiro (4,5)decane derivs. - 40517B/21
- HOFF 30.01.80 HOFFMANN-LA ROCHE AG B03 C02 D16 = J5 6120-696
Antibiotics X-14868 A, B, C and D from Nocardia sp. ATCC 31585 - 56870D/31
- * HOFF 25.04.80 HOFFMANN-LA ROCHE SA B04 D16 S03 (S05) *BE -888-534
Enzyme immunoassay by sandwich method - 81681D/45
- HOFF 25.04.80 HOFFMANN-LA ROCHE AG B04 D16 S03 (S05) = GB 2074-727
Enzyme immunoassay by sandwich method - 81681D/45
- HONS 26.09.74 YAKULT HONSHA KK D13 = J8 1043-705
Acid milk separation and concentration - 37022X/20
- HORN/ 28.04.80 HORN W E B05 D21 #DE 3016-359
Compsn. for forming protective film on teeth - 60390C/34
- * HOWA/ 26.04.80 HOWARD A N D13 *GB 2074-436
Expanded cereal snack foods - 82118D/45
- HUBE 20.12.77 HUBER J M CORP D21 E33 = AT 7801-855
Abrasive silica compsn. for dentifrice paste - 67037A/38
- HYDR- 27.12.74 HYDROPHILICS INT IN A96 D22 (A14) = IT 1052-624
Water-insoluble adducts of iodine - 54459X/29
- ICIL 10.04.75 IMPERIAL CHEM INDS LTD C03 D22 E14 G02 (D15 D18) = US 4295-887
Protecting paints, adhesives oil emulsions against microorganisms - 81597X/44
- ICIL 03.08.78 IMPERIAL CHEM INDS LTD B04 C03 D13 = AT 8101-600
Metabolite produced from Streptomyces longisporoflavus - 11519C/07
- ICIL 31.01.80 IMPERIAL CHEM INDS LTD D22 E16 F09 (D15) = J5 6120-603
Protecting aq. media from microbial fouling - 72048D/40
- * ICIL 28.04.80 ICI AMERICAS INC A82 C03 D22 G02 (A60) *GB 2074-449
Water-dispersible concentrate contg. iodo-alkyne carbamate(s) - 82123D/45
- * IDAC- 08.05.80 IDACON INC C03 D22 E14 F09 *US 4296-152
Impregnating wood with penta:chlorophenol - 83456D/45
- IKAR/ 21.06.78 IKARI M D12 E17 = J8 1043-211
Frozen fish prepn. - 13622C/08
- INFL 16.06.77 INT FLAVORS & FRAGR INC D23 E13 (D13) = GB 1601-729
Cyclic oxazo ionone derivs. - 93105A/51
- * INFL 03.08.79 INT FLAVORS & FRAGR INC D25 E13 *US 4295-978
Drier-added fabric softening articles - 83380D/45
- * INFL 07.08.80 INT FLAVORS & FRAGR INC B07 D23 E17 (D13 D21) *US 4296-137
Augmenting or enhancing aroma or taste of foodstuffs - 83448D/45
- * INFL 07.08.80 INT FLAVORS & FRAGR INC D13 E17 *US 4296-138
Flavouring of foodstuffs and chewing gum - 83449D/45
- INMR 31.05.77 INST MERIEUX B04 D16 = GB 1601-870
Bacterial esp. Bordetella pertussis endotoxin fractionation - 00267B/01
- INRG 01.02.80 INST NAT RECH AGRON B04 D16 = J5 6123-921
Recovering peptide and phospho-peptide from casein materials - 60791D/34
- INRG 01.02.80 INST NAT RECH AGRON B04 D13 = J5 6123-922
Phospho:peptide prodn. from caseinate - 62670D/35
- * INSP 22.04.80 INST PASTEUR B04 D16 *EP --38-765
Transforming cells with hepatitis virus DNA - 82010D/45
- INTE- 18.11.77 INTEROX SA A97 D15 E33 = EP G002-543
Polymer coated calcium peroxide particles - 47500B/26
- * INTE- 11.03.80 INTERMEDICAT GMBH C03 D22 *EP --38-416
Disinfectants with improved potency and spectrum of activity - 81872D/45
- INTE- 20.03.80 INTERCYLINDER AB D15 (D14) = SE 8002-181
Domestic beverage aerator - 76316D/42
- INTE- 01.04.80 INTEROX CHEM LTD D25 E36 = FR 2479-256
Aq. hydrogen peroxide bleach compsns. - 74330D/41
- INTF 26.12.74 INST TEXTILE DE FRANCE D15 (D23) = IT 1052-642
Treatment of raw wool washing water - 83614X/45

- JAGA 19.09.78 JGC CORP A96 B04 D16 = J8 1043-234
Fixed enzyme or fixed microbial body - 33548C/19
- JAGA 19.09.78 JGC CORP A96 B04 D16 (A14) = J8 1043-235
Enzyme as microbe living method - 33549C/19

- JAGN 04.07.79 JAGENBERG WERKE AG D13 = US 4295-502
Eliminating foam head on liq. with high frequency radiation - 31127C/18
- JANC 04.02.80 JANSSEN PHARMACEUT NV A60 C02 D22 F09 (F06) = J5 6122-304
Preservative for coatings, wood, organic substrates etc. - 80086D/44
- JAOR 22.11.73 JAPAN ORGANO KK D17 = J5 0082-659
Treatment of filtration cake from sugar purificn. - 82838D/45
- * JAOR 22.11.73 JAPAN ORGANO KK D17 *J8 1043-720
Treatment of filtration cake from sugar purificn. - 82838D/45
- JAPS 30.01.79 JAPAN SYNTHETIC RUBBER A18 D22 (A25 A96) = US 4296-015
Water contg. polymer moulding compsn. - 59043C/34
- JELK/ 31.08.77 JELKS J V C03 D13 #SU -803-847
Increasing digestibility of cellulosic plant material - 75799Y/42
- * JENS/ 20.02.80 JENSEN K B D15 *DK 8000-725
Mineral water prodn. plant - D/45
- JOBB 23.12.77 SOC JOB ANC ETAB BARDOU A97 D18 F04 J01 = AT 7809-293
Cigarette filter contg. cellulose di:acetate and cellulose fibres - 04098B/03
- JOHJ 02.01.75 JOHNSON & JOHNSON A60 D21 E14 (A14 A96) = IT 1052-673
Polymerisable dental repair materials - 54549X/29
- JOHM 31.10.78 JOHNS MANVILLE CORP D13 #CA 1110-105
Low beverage soluble iron content filter aid - 07903B/04
- * JOHN- 04.03.80 JOHNSON KK A96 D21 *J5 6122-900
Shampoo compsn. - 82641D/45
- * KAKY 00.00.81 KAKEN YAKU KAKO KK B04 D16 *J5 6123-919
Agent for treating diabetes - 82787D/45
- * KANE- 27.02.80 KANEBO KESHO-HIN KK D21 E19 *J5 6120-612
Compsn. for whitening the skin - 82208D/45
- KAOS 26.12.78 KAO SOAP KK A97 D25 = J8 1043-278
Liq. detergent compsn. - 59331C/34
- * KAOS 26.02.80 KAO SOAP KK A96 D21 *J5 6120-613
Compsn. for pretreating hair prior to shampooing - 82209D/45
- * KAOS 29.02.80 KAO SOAP KK A96 D21 E16 F06 (A87) *J5 6120-788
Aerosol antistatic agent contg. cationic surfactant - 82317D/45
- * KAOS 29.02.80 KAO SOAP KK A96 D21 E11 (E17) *J5 6120-800
Conditioning shampoo compsn. - 82321D/45
- * KAOS 23.06.80 KAO SOAP KK A96 D22 F07 *BE -889-321
Absorbent article, e.g. sanitary towel - 81686D/45
- * KAWJ 27.02.80 KAWASAKI HEAVY IND KK D22 E36 J01 (D13) *J5 6121-686
Treating aq. sodium- or potassium cyanide-contg. soln. - 82413D/45
- * KEAN/ 17.04.80 KEANE M A D15 H09 *WP 8103-029
Aerobic fermentation of solid refuse and sewage sludge - 83538D/45
- KEND 08.01.75 KENDALL CO A96 D22 F07 = IT 1052-674
Surgical sponge with indicator opaque to X-rays - 42057X/23
- * KENO- 23.04.80 KENOVA AB D21 *WP 8103-009
Storing two ingredients of dental amalgam - 83530D/45
- * KIKK 25.02.80 KIKKOMAN CORP D16 *J5 6121-483
Improving taste and flavour of wine - 82362D/45
- KINK/ 08.08.77 KIN K D15 = J5 4030-654
Sludge scraper for removing sludge from pond - 82796D/45
- * KINK/ 08.08.77 KIN K D15 *J8 1042-967
Sludge scraper for removing sludge from pond - 82796D/45
- KIRI 20.02.80 KIRIN BREWERY KK D16 = DK 8100-689
Low original gravity beers prodn. - 68501D/38
- KITA 07.03.78 KITASATO KENKYUSHO B02 C02 D16 = US 4296-040
Prodn. of antimicrobial nanaomycin E - 66679B/37
- KOBM 16.05.77 KOBE STEEL KK D15 J01 = GB 1601-969
Tubular membrane appts. with self cleaning action - 86475A/48
- * KOLM 21.04.80 KOLMAR LTD D21 *EP --38-645
Cosmetic prepn. - 81954D/45
- KONN 17.11.76 GIST-BROCADES NV D13 E13 = NL-168-119
Treating fruit and vegetables with fatty acid saccharose ester - 36950A/21
- * KOSH- 29.02.80 KOSHII PRESERVING K C03 D22 E19 F09 (E37) *J5 6121-414
Timber preservation - 82352D/45
- * KOYA/ 27.02.80 KOYAMA Y B04 D16 *J5 6120-694
Antitumour, antimicrobial neocartanostatin Ma - 82257D/45
- * KRAU- 24.04.80 KRAUSE J GMBH D18 *DE 3015-743
Reversible belt conveyor device - 81801D/45
- KRPP 18.04.79 KRUPP F GMBH D23 = DD -150-077
Vegetable oil production - 77241C/44
- * KRYL/ 02.08.79 KRYLOV O T D15 J01 M25 *SU -803-950
Water treatment etc. ion exchange sorption process - 83002D/45
- KUBA/ 28.03.80 KUBASOV V L D15 E36 J03 X25 #FR 2479-272
Electrode for electrochemical processes - 25210D/14
- * KUHT/ 09.04.80 KUHTREIBER F D16 *AT 8001-929
Beer making installation - D/45
- KUPI/ 15.01.79 KUPIEC A R A35 D15 J04 L02 #CA 1110-281
Treatment of liquid contg. industrial waste - 35097B/18
- * KURE 21.03.80 KUREHA KAGAKU KOGYO A11 B04 D13 (A96 A97) *EP -38-628
De-N-acetylated chitin and fibrous collagen composite - 81943D/45
- KURK 04.06.77 KURITA WATER IND KK A91 D15 J01 = J8 1042-977
Removing impurities from liq. using precoated filtration element - 12714B/07

- * KURS 27.02.80 KURARAY KK A96 D21 (A14) *J5 6120-610
Photopolymerisable filling material for dentistry - 82206D/45
- * KURS 29.04.80 KURARAY KK A96 D21 (A14) *GB 2074-590
Polymerisable acrylate-urethane binders - 82157D/45
- * KYOD 29.02.80 KYODO SHIRYO KK C03 D13 *J5 6121-436
Cattle feed compsn. - 82355D/45
- KYOW 23.10.67 KYOWA HAKKO KOGYO B05 D13 E16 = IT 1052-678
Amino acid compsn. for addition to foodstuffs - 37219F/00
- KYOW 07.03.78 KYOWA HAKKO KOGYO B02 C02 D16 = US 4296-040
Prodn. of antimicrobial nanaomycin E - 66679B/37
- * KYOW 29.02.80 KYOWA HAKKO KOGYO KK B02 D16 *J5 6121-495
Analgesic, spasmolytic, sedative benzodiazepine deriv. prepn. - 82370D/45
- * KYOW 29.02.80 KYOWA HAKKO KOGYO KK B04 D16 *J5 6122-392
DC-11-A-2 cpd. useful as antitumoural agent - 82537D/45
- * KYOW 29.02.80 KYOWA HAKKO KOGYO KK B04 D16 *J5 6122-393
DC-11-A-3 substance obtd. from micromonospora:bacteria - 82538D/45
- * KYOW 29.02.80 KYOWA HAKKO KOGYO KK B04 D16 *J5 6122-394
Cpd. dc-11-b useful as antitumoural agent - 82539D/45
- KYOX 02.06.80 KYOWA CHEM IND CO B06 D21 E33 #US 4296-094
Drug for preventing tooth decay - 31645C/18
- KYPO= 25.04.80 KRASNOYARSK POLY B01 D23 #DE 3016-060
Purificn. of wool grease to prepare lanolin - 77052C/44
- * LABO 28.03.80 LABOFINA SA A97 D15 H03 *FR 2479-251
Compsn. for dispersing oil spills on the surface of water - 82067D/45
- * LAIT- 17.04.80 LAITERIES BRIDEL E D13 *EP --38-732
Acidulated milk with low mineral content - 81991D/45
- * LAND/ 26.03.80 LANDRIVON H C03 D13 *FR 2478-954
Animal lick contg. magnesium sulphate and other salts - 82025D/45
- * LEAT= 21.11.78 LEATHER SHOE IND D18 *SU -777-063
Sole leather prodn. - 82880D/45
- * LECO- 30.06.80 LECORA AB D11 *BE -889-330
Spreading layer of paste on band for cooking crepe etc. - 81689D/45
- LICN 02.10.76 LICENTIA PATENT GMBH D22 E18 J01 = AT 7706-969
Filter material for removing alkaline gases from the air - 10317A/06
- * LIOY 26.02.80 LION DENTIFRICE KK B04 D21 *J5 6120-621
Prodn. of substance for treating wounds, burns etc. - 82214D/45
- * LIOY 29.02.80 LION CORP A97 D25 E12 (E16) *J5 6122-898
Liq. detergent compsn. - 82639D/45
- * LIOY 29.02.80 LION CORP A97 D25 E12 (E16) *J5 6122-899
Liq. detergent compsn. - 82640D/45
- * LIOY 04.03.80 LION CORP A97 D25 E19 F06 *J5 6123-476
Clothes processing agent for domestic use - 82693D/45
- * LIOY 05.03.80 LION DENTIFRICE KK D21 E19 *J5 6123-910
Foamable dentifrice paste - 82782D/45
- * LOHM- 26.04.80 LOHMANN TIERERNAHR C03 D13 *DE 3016-214
Improving protein provision of cattle esp. milk cows - 81837D/45
- * MAGO/ 24.07.78 MAGOMEDOV G K I A41 D23 E17 *SU -804-626
Prodn. of satd. aldehyde monomer and aromatic agent - 83231D/45
- * MAK/ 29.07.74 MAKAROV I A D22 E13 M14 *SU -507-042
Synthesis of poly-benzyl-pyridinium chloride - 82854D/45
- MARI/ 15.07.77 MARIEL C B04 D16 S03 S05 = GB 1601-689
Detection of bacteria in samples - 30092B/16
- * MARQ/ 17.04.80 MARQUEZ E D14 *EP --38-766
Filling and packing of perforated pot liners with fresh cheese - 82011D/45
- MASU/ 27.10.76 MASUZAWA H D15 = J5 3054-854
Waste liquor treatment appts. - 82795D/45
- * MASU/ 27.10.76 MASUZAWA H D15 *J8 1042-966
Waste liquor treatment appts. - 82795D/45
- MATU 20.12.76 MATSUSHITA ELEC IND KK A88 D15 J01 = J8 1042-963
Reverse osmosis membrane - 57836A/32
- MATU 14.12.78 MATSUSHITA ELEC IND KK B05 D16 = J8 1043-358
Quantitative or qualitative determ. of aminoacid - 54522C/31
- MAZN 27.02.80 MARUZEN OIL KK A13 B04 C03 D22 (A96 A97) = J5 6120-601
Poly para-hydroxy styrene(s) - 72209D/40
- MCDO- 14.04.75 MC DONALDS CORP D14 = IT 1052-887
Hot sandwich display cabinet for self service - 22374X/12
- MEGG 29.05.78 MEGGLE MILCHIND GMB D13 = AT 7903-853
Cheese prodn. - 89484B/50
- MEIJ 01.04.80 MEIJI SEIKA KK B04 C03 D16 (D22) = FR 2479-232
Antibiotics SF-2107 A-1 - 76348D/42
- MERE 22.05.75 MERCK PATENT GMBH A60 D21 E32 G01 (G02) = J8 1043-068
Nacreous pigments based on mica - 90645X/49
- MERE 29.01.76 MERCK PATENT GMBH A96 D21 G01 (A14 A97) = J8 1043-069
Free flowing pearly pigment powder for cosmetics - 55907Y/32
- MERE 20.08.76 MERCK PATENT GMBH D13 = NL -168-120
Dietetic granular albumin food prod. - 14041A/08
- MERE 02.02.80 MERCK PATENT GMBH A96 B04 D16 S03 = J5 6120-950
Immunological determination of antibodies, antigens and hapten(s) - 60703D/34
- * MERI 25.01.78 MERCK & CO INC B04 C03 D16 *US 4296-204
Cell culture propagation for vaccine prodn. - 83481D/45
- MERI 30.01.78 MERCK & CO INC B04 C03 D16 = EP G003-692
Heat labile enterotoxin isolated from Escherichia coli - 61853B/34
- METG 29.07.70 METALLGESELLSCHAFT AG D15 = NL -168-198
Cyclone furnace - 10352T/07
- MILE 23.12.74 MILES LABORATORIES INC D13 = IT 1052-531
Salt-free protein concentrate from oilseeds - 07069X/04
- MILE 06.01.75 MILES LABORATORIES INC D13 F01 (D12) = IT 1052-794
Prepn of intermittently fused fibrous protein product - 35897X/19
- MILE 27.03.78 MILES LABORATORIES INC A91 D16 (A26) = CA 1110-185
Preparing aggregate of bacterial cells esp. streptomyces olivaceus - 54547B/30
- MILE 11.09.78 MILES LABORATORIES INC A96 B04 D16 = CA 1110-186
Formed bacterial cell aggregates of improved durability - 68167B/38
- * MILL/ 31.03.80 MILLET F C03 D13 *FR 2478-953
Animal feed from abattoir, dairy, preserving floating sludge - 82024D/45
- MINN 12.05.76 MINNESOTA MINING CO A96 D22 F07 = CA 1110-008
Disposable, multi-ply, sanitary pad and clothing protector - 83313Y/47
- MINN 11.03.77 MINNESOTA MINING CO D22 E14 S03 W05 = GB 1601-922
Indicator for steam and formaldehyde disinfection - 67405A/38
- MINN 29.07.77 MINNESOTA MINING CO A96 D21 (A14) = CA 1110-172
Sun protection compsns. - 14474B/08
- MINN 14.11.77 MINNESOTA MINING CO A96 B04 D16 = CA 1110-187
Substrates for immobilising biologically active proteins - 39382B/21
- MITO 10.05.78 MITSUBISHI HEAVY IND KK D16 = J8 1042-996
Biological treatment of kitchen waste, e.g. vegetable with anaerobe - 00658C/01
- MITP 16.03.77 MITSUBISHI PETROCH KK A25 D25 E17 (A97) = GB 1601-652
Liq. nonionic polyglycol surfactants prepn. - 69223A/39
- * MITR 28.02.80 MITSUBISHI RAYON KK D22 F06 *J5 6123-474
Fibre with long-lasting sterilising effect - 82692D/45
- * MITU 28.02.80 MITSUBISHI CHEM IND KK B01 D16 *J5 6120-698
24-Nor:chola-1,4-dien-3,22-di:one or 24-nor:chol 4-en-3,22-di:one - 82259D/45
- * MITU 29.02.80 MITSUBISHI CHEM IND KK D15 E12 J03 *J5 6121-682
Purificn. of waste water contg. organo-mercury cpds. - 82411D/45
- MLCW 28.12.77 BYK-MALLINCKRODT A96 B04 D16 S03 (A26 S05) = AT 7808-822
Stabilised, insolubilised biochemical products - 31618B/17
- MLCW 31.03.80 MALLINCKRODT INC A96 B04 D16 S03 = FR 2479-262
Determn. of endotoxins in parenteral solns. etc. - 49508D/27
- * MOGI= 04.04.79 MOGIL TECH INST D14 *SU -793-550
Drier for liquid foods, e.g. milk - 82884D/45
- MORP 09.02.78 MORISHITA PHARM KK A96 B04 D16 = J8 1043-232
Sepn. and purificn. of Staphylokinase - 72513B/40
- MOSU 20.07.77 MOSCLOMONOSOV UNIV D16 G06 = SU -798-660
Forming visible images by ultrasonic irradiation of ferment plate - 12268B/07
- * MUKE/ 07.04.80 MUKE O A97 D16 *DD -150-078
Reducing turbidity-forming materials from drinks - 81725D/45
- NAGA 24.04.78 VEB KOMBINAT NAGEMA D12 = AT 7900-872
Vacuum cutter and mixer for meat etc. - 59894B/33
- * NALC 14.07.80 NALCO CHEMICAL CO A97 D22 E13 F09 (D15 E36) *US 4295-932
Control of microorganisms in aq. systems - 83358D/45
- NAMA- 09.12.74 NAT MARINE SERV INC D15 H03 J01 = IT 1052-538
Disposal of oil-contaminated effluent - 49358X/26
- NASM/ 30.01.79 NASMAN J O D22 S05 (S03) = US 4296-067
Pasteurisation autoclave - 57202C/33
- * NATE- 23.04.80 NATEC INST NATURWIS B04 D13 J04 S03 *DE 3015-537
Aflatoxin(s) chromatographic detection in extracts - 81787D/45
- NATR 22.09.71 NATIONAL RES DEV CORP B04 D16 S03 S05 = NL -168-268
Enzyme prepn from nocardia microorganisms - 19943U/15
- * NATR 09.04.80 NATIONAL RES DEV CORP B04 D16 S03 *EP --38-642
Mono:clonal antibodies to hepatitis B surface antigen - 81951D/45
- * NAUM/ 08.04.80 NAUMANN B D16 H08 L02 *DD -150-076
Mould-release emulsions for concrete - 81724D/45
- * NAZA/ 08.08.80 NAZARIAN M M A35 D15 J03 *US 4295-946
Electrochemical purificn. of contaminated liq. - 83363D/45
- * NCAU= 26.04.79 NORTH-CAUC ANIM HUS C03 D13 *SU -803-934
Administration of borax as feed additive for cattle - 82996D/45
- * NCAU= 07.08.79 NORTH CAUC PHYTOL C03 D13 *SU -803-924
Nutrient for culturing eurygaster insects - 82991D/45
- * NCAU= 07.09.79 NORTH CAUC PHYTOL C03 D13 *SU -803-925
Nutrient for culturing of eurygaster insects - 82992D/45
- * NEST 31.03.80 SOC PROD NESTLE SA D13 *FR 2478-952
Textured protein prod., esp. of soya or fish - 82023D/45
- * NEUM/ 02.04.80 NEUMANN G D16 E17 *DD -150-079
High energy-contg. gas prodn. - 81726D/45
- NEVE/ 23.10.79 NEVES A M D16 E17 = EP --38-359
Delignification of cellulosic materials - 36323D/20
- NEVI= 25.04.80 NEVINNOK WOOL IND RES B01 D23 #DE 3016-060
Purificn. of wool grease to prepare lanolin - 77052C/44

- NEWG- 17.11.77 NEW GENERATION FOOD D13 = CA 1110-107
Expanded foodstuff prepd. from high protein wheat - 23989B/13
- NEXU- 01.11.79 NEXUS APS C03 D13 E17 = EP --38-347
Fatty acid partial ester(s) of glycerol condensates - 40195D/22
- NIAU- 28.04.78 NIHON AUTOM MACH MF C04 D15 L02 = US 4295-972
Treatment of waste water contg. (in)organic impurities - 82817B/46
- NIOC 25.03.80 NIPPON OIL KK B02 D16 = FR 2479-260
Coproporphyrin and uroporphyrin sepn. and recovery - 74342D/41
- *NIPQ 19.02.79 DAI NIPPON INSATSU D22 T06 X25 *US 4296-068
Sterilisation station for succession of containers - 83423D/45
- *NIPS 29.02.80 NIPPON SODA KK A97 D13 E36 G04 *J5 6121-634
Oxygen absorbent for protecting food - 82401D/45
- NIRO 15.02.80 NIRO ATOMIZER A/S D14 = DK 8000-685
Drying powdered milk on vibrating bed - 66590D/37
- NISB 25.10.77 JAPAN TOBACCO & SALT PUB D18 E32 = J8 1043-226
Stable flavouring component for tobacco - 48052B/26
- *NISB 26.02.80 JAPAN TOBACCO & SALT PUB D18 E13 *J5 6121-477
Enhancing taste and flavour of tobacco - 82361D/45
- *NISB 27.02.80 JAPAN TOBACCO & SALT PUB D16 (D17) *J5 6121-497
Polysaccharide prodn. by cultivating microorganism - 82372D/45
- NISS 24.08.79 NISSHIN FLOUR MILL KK D11 #US 4296-133
Bread making dough - 21489C/12
- *NISS 27.02.80 NISSHIN FLOUR MILL KK D11 E17 (D16) *J5 6121-428
Bread mfg. method - 82353D/45
- *NISS 27.02.80 NISSHIN FLOUR MILL KK D11 E16 (D16) *J5 6121-429
Prodn. of bread having excellent taste and flavour - 82354D/45
- NISW 17.10.79 NISSHIN OIL MILLS KK D13 = J5 6058-460
Improving properties of granular soybean protein - 82836D/45
- *NISW 17.10.79 NISSHIN OIL MILLS KK D13 *J8 1043-708
Improving properties of granular soybean protein - 82836D/45
- *NISY 04.03.80 NIPPON SYNTH CHEM IND A60 C03 D22 F06 (F09) *J5 6123-906
Antibacterial fungicide additive - 82780D/45
- NITL 31.01.79 NITTO ELECTRIC IND KK A96 B07 D22 = J8 1043-445
Tacky medicinal packing plaster prepn. - 66693C/38
- *NITL 05.03.80 NITTO ELECTRIC IND KK A96 B07 D22 *J5 6123-912
Tape prepn. contg. pharmaceutical - 82783D/45
- *NITT- 28.02.80 NITTO KAKO KK D15 *J5 6121-693
Floating solid water treating agent mfr. - 82414D/45
- NITW 08.12.77 NITTETSU MINING KK D15 E36 M14 = J8 1043-313
Phosphoric acid recovery from aluminium polishing waste - 57233B/31
- NODA 24.11.78 NODA INST SCI RES B04 D16 = J8 1043-353
Proline acylase enzyme mfr. - 48883C/28
- *NOKS 29.02.80 NITTO KASEI KK A97 D13 E36 G04 *J5 6121-634
Oxygen absorbent for protecting food - 82401D/45
- NORQ 25.07.78 NORIINSHO KK D13 (D16 D17) = J8 1043-212
Thick malt syrup contg. cyclodextrin prepn. - 21190C/12
- NOVA- 06.12.79 NOVA NORD VATTENPRO D15 = NO 8102-652
Removing sludge cake from chamber filter press - 51646D/28
- NOVO 09.04.79 NOVO INDUSTRIA/S D16 (D13) = DD -149-999
De-stabilisation of microbial rennin - 75330C/43
- NOVO 06.02.80 NOVO INDUSTRIA/S D16 E17 = J5 6121-487
Ethanol prodn. from aq. suspension of granular starch - D/39
- NREN 12.12.77 NIPPON WATER TREATM KK D15 J01 = J8 1042-978
Regenerating ion exchange resin in a fixed bed - 58905B/32
- NUCL- 06.12.78 NUCLEAR SUPREME D15 #CA 1110-200
Treating aqueous sewage to produce potable water - 01747B/01
- OCCI 11.10.77 OCCIDENTAL PETRO CORP C04 D15 E33 (E36) = GB 1601-669
Recovery of calcium fluoride from pond waters - 79011B/43
- *ODAI/ 21.03.80 ODAIRA K C03 D13 (C04) *GB 2074-558
Altering the compsn. of peat to make fertiliser or animal feed - 82143D/45
- *ODPR= 10.11.78 ODESS PROVISION MAC D14 *SU -776-594
Mincer for vegetable tissues to produce juices and baby food - 82877D/45
- *OMRO 03.03.80 OMRON TATEISI ELTRN KK A89 B04 D16 J04 *J5 6122-947
Pyruvic acid determ. by enzyme electrode method - 82642D/45
- ONOD/ 13.09.78 ONODERA F D16 (D13) = J5 5039-726
Mutant *Bacillus subtilis* ON-1 - 82804D/45
- *ONOD/ 13.09.78 ONODERA F D16 (D13) *J8 1043-229
Mutant *Bacillus subtilis* ON-1 - 82804D/45
- OREA 16.07.76 L'OREAL SA A25 B04 D21 (A97 B07) = AT 7705-131
Polyether-poly:ol surfactants with sequenced structure - 06349A/04
- OREA 09.09.76 L'OREAL SA D21 E24 = J8 1043-260
(N)-Mesylaminoalkyl amino alkyl phenols - 04114A/03
- OREA 06.04.78 L'OREAL SA D21 E24 = US 4295-848
Oxidation dye compsns. for hair dyeing - 73619B/41
- OREA 01.04.80 L'OREAL SA A96 D21 G02 (A14) = FR 2478-998
Nail varnish compsn. contg. copolymer - 75734D/42
- *OREA 18.04.80 L'OREAL SA A96 D21 E24 *BE -888-488
Salts of acid colourants and specified copolymers - 81672D/45
- OREA 18.04.80 L'OREAL SA A96 D21 E24 = GB 2074-584
Salts of acid colourants and specified copolymers - 81672D/45
- ORTH 13.07.79 ORTHO PHARM CORP B04 D16 S03 (S05) = US 4296-090
Rapid detection of antigens on human erythrocytes - 06231D/05
- *ORTH- 25.04.80 ORTHANA KEMISK FAB B04 D22 (B07) *WP 8102-977
Aq. soln. contg. non-human mucin and preservative - 83521D/45
- TZOD- 23.04.80 OZODYNE INC D15 #DE 3015-625
Treatment of waste water with ozone - 58564C/33
- PASE 17.03.80 PASSAVANT-W & CO AG D15 = NO 8100-898
Circulating system for aeration basin - 72110D/40
- PATP- 27.03.80 PATPAN INC D18 = FR 2479-263
Drying moist skin - 76379D/42
- *PAVL- 21.04.80 PAVLOVA PANTRY MARK D13 *EP --38-684
Additive for improving whipping props. of egg whites - 81972D/45
- *PEDE/ 25.04.80 PEDERSEN EL B04 D22 (B07) *WP 8102-977
Aq. soln. contg. non-human mucin and preservative - 83521D/45
- PERM- 30.01.80 PERMA SA D21 = J5 6120-614
Two-pack hair bleaching compsns. - 60792D/34
- PERS 16.04.73 PERSONAL PRODUCTS CO A96 D22 F04 #J4 9130-097
Surgical dressings - 79065U/51
- PERS 16.04.73 PERSONAL PRODUCTS CO A96 D22 F04 #J8 1043-427
Surgical dressings - 79065U/51
- *PETR/ 07.06.78 PETROW H G D21 E34 (E16) *US 4295-985
Removal of chlorine from hair and skin - 83384D/45
- PFIZ 02.08.76 PFIZER INC D23 E13 (D13) = CA 1110-254
Gamma-pyrones prepn. esp. from furfuryl alcohol cpds. - 00033A/01
- PFIZ 15.11.77 PFIZER INC D16 H01 = US 4296-203
Fermentative prodn. of pyruvate-free xanthan - 37168B/20
- PHAA 23.05.67 PHARMACIA AB A11 B04 D16 S03 (S05) = IT 1052-959
Chemically bonding biopolymers to polysaccharides - 16019Q/00
- PHAS 16.05.79 PHARMASCIENCE LABS D22 E16 = AT 8002-562
Sterilisation or disinfection of appts. e.g. dairy equipment - 84716C/48
- *PHIG 18.03.80 SVENSKA PHILIPS AB D22 X25 *SE 8002-095
Microwave heating of timber in sawmill - D/45
- PHIP 29.03.77 PHILLIPS PETROLEUM CO D16 = GB 1601-657
Fermentation plant to reduce monocellular protein from methanol etc. - 02417B/02
- *PILO/ 31.03.80 PILOT B J D21 *FR 2479-257
Bars of soap with surface recess - 82069D/45
- *POKK 26.02.80 POLA KASEI KOGYO KK D21 E13 *J5 6120-611
Cosmetic for whitening the skin - 82207D/45
- *POKK 29.02.80 POLA KASEI KOGYO KK D21 E32 G01 *J5 6122-306
Yellowish cosmetic compsn. - 82490D/45
- POLA 31.03.77 POLAK'S FRUTAL WORKS INC D13 E13 = GB 1601-933
Hydroxy-di:alkyl-oxo-furan(s), produced synthetically - 72685A/41
- POLA 31.03.77 POLAK'S FRUTAL WORKS INC D13 E13 = GB 1601-934
Hydroxy-di:alkyl-oxo-furan(s), produced synthetically - 72685A/41
- POPP/ 23.04.80 POPPINGHAUS K C03 D13 = DE 3015-515
Protein-contg. fodder prodn. - 81893D/45
- *POPP/ 23.04.80 POPPINGHAUS K C03 D13 *EP --38-489
Protein-contg. fodder prodn. - 81893D/45
- *PREP- 25.04.80 PRE & POST HARVEST RES C03 D13 *GB 2074-437
Porous absorbent sheet impregnated with e.g. biocide - 82119D/45
- PROC 12.03.71 PROCTER & GAMBLE CO D25 E13 F06 = NL -168-281
Textile softening compsns. - 63110T/40
- PROC 17.04.80 PROCTER & GAMBLE CO D25 E19 (E33) = EP --38-591
Improved detergent compsns. - 37998D/21
- PURD 08.03.78 PURDUE RESEARCH FOUNDATI D17 E13 = CA 1110-233
Glucose prodn. by cellulose acid hydrolysis - 68608B/38
- PURD 06.12.79 PURDUE RESEARCH FOUNDATI B04 D16 E19 (D17) = BR 8008-967
Mycelial pellets for biocatalytic reactions - 51660D/28
- PURD 06.12.79 PURDUE RESEARCH FOUNDATI B04 D16 E19 (D17) = NO 8102-656
Mycelial pellets for biocatalytic reactions - 51660D/28
- *PURD 23.04.80 PURDUE RESEARCH FOUNDATI D16 E17 *EP --38-723
Prepn. of ethanol from xylulose - 81988D/45
- PURD 23.04.80 PURDUE RESEARCH FOUNDATI D16 E17 = WP 8103-032
Prepn. of ethanol from xylulose - 81988D/45
- RANG 14.05.70 RANKS HOVIS MCDOUGA C03 D16 (D13) = NL -168-266
Edible proteins produced using non-toxic microorganisms - 74880S/47
- *RATH/ 00.00.78 RATH E D22 *DE 3015-779
Surgical swab - 81806D/45
- *REGA/ 11.02.80 REGAN M D D15 E36 J04 S03 *US 4296-328
High purity water purity appts. - 83510D/45
- RESE 20.09.79 RESEARCH CORP B04 C03 D16 = EP --38-337
Vaccine contg. ciliary protein from *Tetrahymena pyriformis* - 29021D/16
- *RESE 28.03.80 RESEARCH CORP B04 C03 D16 *FR 2479-000
Brucellosis vaccine contg. killed *Brucella abortus* 45/20 cells - 82031D/45
- RETI- 20.08.79 RETINA FOUNDATION A96 D22 (A14) = BR 8008-996
Hydrogel implant of crosslinked acrylate copolymer - 21414D/12
- *RETT/ 19.04.80 RETTIG R D16 *DE 3015-164
Compost bin with bottom extn. - 81763D/45
- RHON 29.01.80 RHONE POULENC AGROC A97 C01 D16 = J5 6120-609
Phosalone insecticide compsn. contg. thickener and surfactant - 59059D/33

- * RHON 13.06.80 RHONE-POULENC INDUSTRIES D15 *BR 8103-753
Treatment of aq. effluents contg. organic residues - D/45
- RICH- 17.04.80 RICHARDSON-VICKS A96 D21 =EP --38-533
Anhydrous denture adhesive liq. compsn. - 60306D/33
- RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 =US 4296-072
Heating or cooling plant for wet solids partic. pulpy materials - 71596C/41
- RIJK- 06.06.79 MACH RIJKAART C BV D11 #US 4296-135
Forming a continuous layer of emulsified material - 87114B/48
- RIKA 27.10.78 RIKAGAKU KENKYUSHO D16 =J8 1043-230
Uricase prodn. by culturing uric acid assimilating *Streptomyces* fungi - 42214C/24
- ROHG 16.07.77 ROHM GMBH A96 B04 D16 =DS 2860-880
Stabilisation of immobilised protein(s) - 08258B/05
- ROHG 27.03.80 ROHM GMBH D15 J01 (D18) =FR 2479-020
Sepn. of soluble substances from carrier liquids - 73994D/41
- ROHG 11.04.80 ROHM GMBH A97 D18 (A14) =DE 3013-912
Polymer soln. or dispersion for treating pelts and leather - 80329D/44
- ROQF 12.07.78 ROQUETTE FRERES SA C03 D13 =AT 7904-872
High fat-contg. premix prepn. - 07831C/05
- RORE 24.06.76 RORER W H INC A96 D21 #AT 7902-426
Aq. pharmaceutical detergent compsn. - 29676B/15
- * RORE- 08.12.80 RORER INT OVERSEAS A96 B05 D21 *BE -889-327
Compsns. for acne treatment - 81687D/45
- ROUS 07.04.78 ROUSSEL UCLAF B02 D22 =AT 8004-478
Amino:thiazolyl-acetamido cephalosporin derivs. - 73624B/41
- ROUS 09.02.79 ROUSSEL UCLAF B02 D22 =AT 8000-595
Syn.-cephalosporin broad-spectrum antibiotics - 58760C/34
- * ROUV/ 27.03.80 ROUVIER J G D18 *FR 2478-957
Extracting nicotine from tobacco - 82028D/45
- * RUSH- 22.04.80 RUSH-PRESBYTERIAN B04 D16 *EP --38-719
Culture of cartilage cells in vitro - 81985D/45
- RUSH- 22.04.80 RUSH-PRESBYTERIAN B04 D16 =WP 8103-031
Culture of cartilage cells in vitro - 81985D/45
- * SAGA 27.02.80 SAGAMI CHEM RES CENTRE D23 E13 *J5 6120-681
(Z)-8-None-5-one deriv. prodn. - 82251D/45
- * SAGM/ 23.04.80 SAGMEISTER F A97 C03 D13 *EP --38-792
Mycotoxin-binding agent for addition to food- and feedstuffs - 82019D/45
- SANE 11.08.78 SAN E I CHEM IND KK D13 =J8 1043-261
Edible red dye mfr. from red cabbage - 24593C/14
- SANO 01.02.80 SANDOZ AG A87 D18 F06 (A97 F09) =J5 6123-475
Compsn. contg. partly saponified lecithin and a polyhydroxy cpd. - 58792D/33
- * SATC/ 03.07.80 SATCHER A T D21 *US 4296-064
Making bars from soap chips - 83422D/45
- SAUE 17.04.76 SAUERBRUCH BOTTLER KG A11 D21 =J8 1043-070
Soluble collagen prodn. for use in cosmetics - 76135Y/43
- SAXH/ 03.05.69 SAXHOLM R D16 S03 (S05) =NL -168-265
Support body for diffusion method for - 82152R/44
- SCHE/ 05.02.79 SCHENCK G D22 (D15) =US 4296-066
Photo-reactor for sterilising flowing media - 58942C/34
- SCHR- 28.02.77 SCHREIBER L D CHEES D13 =GB 1601-672
Non-cultured cheese substitute - 63836A/36
- * SCHR- 18.04.80 SCHREIBER CHEESE CO INC D13 *GB 2074-435
Treating of cheese offcuts - 82117D/45
- * SCMZ 07.01.80 SCM CORP D23 E15 *US 4296-257
Individual di:hydro-carvone isomers prodn. - 83500D/45
- * SCOP 20.06.80 SCOTT PAPER CO D22 F04 *BE -889-315
Non-woven web, for baby napkins - 81684D/45
- SEAR 30.01.80 SEARLE G D & CO B04 D16 E14 (B05 D13) =FR 2479-259
Synthetic gene contg. repeating codon sequence - 42123D/24
- SEIS 07.06.75 SEISAN KAIHATSU KAGAKU A96 B04 D16 =J8 1043-354
Fixing mycelium into collagen filaments - 11626C/07
- SEIS 14.11.78 SEISAN KAIHATSU KAGAKU B04 D16 =J8 1043-355
Fixing of enzymes - 47345C/27
- SEIS 26.01.79 SEISAN KAIHATSU KAGAKU D16 =J5 5102-388
Dialyser with membrane - 82812D/45
- * SEIS 26.01.79 SEISAN KAIHATSU KAGAKU D16 *J8 1043-352
Dialyser with membrane - 82812D/45
- * SEKI 29.02.80 SEKISUI CHEMI IND KK B05 D16 *J5 6121-490
Purifying coenzyme/Q - 82366D/45
- SETO- 19.11.79 SETON CO D12 (D21) =US 4295-894
Soluble collagen fibre prepn. from hides - 40481D/23
- SEVE- 06.04.79 SEVEN RICE KOGYO KK D13 =J5 5015-553
Pretreatment of grain with alcohol - 82811D/45
- * SEVE- 06.04.79 SEVEN RICE KOGYO KK D13 *J8 1043-332
Pretreatment of grain with alcohol - 82811D/45
- * SHIM- 27.02.80 SHIMAKYU YAKUHIN KK C03 D13 *J5 6121-441
Growth promoting fish-food additive - 82356D/45
- * SHIO 17.04.80 SHIONOGI KK B04 D16 *EP --38-534
Fermentative prodn. of thienamycin - 81902D/45
- SHIS 12.10.77 SHISEIDO KK A60 D21 G01 H07 =J8 1043-264
Hydrophobic powder prodn. for use in cosmetics, plastics etc. - 44987B/24
- * SKRI/ 13.09.68 SKRIPNIK V A D15 M25 *SU -267-500
Mercury removal from waste water - 82849D/45
- SMIN 08.10.76 SMITH & NEPHEW LTD A96 D22 =CA 1110-152
Flexible multilayer band partic. of adhesive surgical dressing - 12326A/07
- SNAM 20.10.77 SNAMPROGETTI SPA B07 D13 E13 (B03) =CA 1110-255
2,5-Di:alkyl-4-hydroxy-di:hydro:furanone prodn. - 31582B/17
- SNAM 23.05.78 SNAMPROGETTI SPA B05 D16 E19 =AT 7903-758
Prepn. of D-aminoacids - 85938B/48
- SNKM 05.04.78 SANKIN IND CO LTD D21 M26 =J8 1043-377
Cast alloys with low m.pt. for mfg. dental prostheses - 75605B/42
- * SOSH 26.02.80 SODA KOKYO KK D18 E13 *J5 6121-477
Enhancing taste and flavour of tobacco - 82361D/45
- * SQUI 13.02.78 SQUIBB E R & SONS INC B04 D16 *US 4296-101
Antibiotic kristenin from *Bacillus subtilis* ATCC 31340 - 83436D/45
- * STAU 17.04.80 STAUFFER CHEMICAL CO C03 D13 *EP --38-603
Co-dried prods. contg. starch and protein derived compsns. - 81935D/45
- STEI 19.04.80 STEINECKER A MASCH GMBH D22 E19 =EP --38-444
Odorous substance removal from effluent air - 79958D/44
- * STEI/ 24.04.80 STEINGRAF P D22 S05 *DE 3015-787
Cooling pad or bandage for therapeutic or diagnostic use - 81807D/45
- STEP- 18.01.75 STEPHAN A & SHONE G D13 =IT 1052-581
Confectionary mfr in one vessel - 38154X/21
- STOL- 22.04.80 GEBR STOLLE GMBH D12 =DE 3015-336
Machine to insert sachet of giblets into drawn chicken - 64210D/36
- STRA- 20.12.74 STRAIGHT LINE FILTE D15 J01 =IT 1052-868
Horizontal band filter - 02009X/02
- STRA- 20.12.74 STRAIGHT LINE FILTE D15 J01 =IT 1052-869
Horizontal band filter - 02008X/02
- STRK 07.08.73 STORK BRABANT BV D12 =NL -168-118
Poultry intestines removal - 12724W/08
- SULZ 18.04.77 SULZER BROS LTD D15 J08 =GB 1601-726
Heat exchanger for slurries - 76709A/43
- SUNZ 22.12.78 SUN STAR HAMIGAKI K D25 E19 =J8 1043-276
Detergent compsn. causing no ocular irritation - 57810C/33
- SUNZ 21.05.79 SUN STAR HAMIGAKI K B04 D16 =J5 6120-623
Test agent for detection of dental caries bacteria - 88602C/50
- * SVNA= 30.03.79 SVERD NATION ECON D14 X27 *SU -793-562
Electric cooking boiler - 82885D/45
- * TAIS 27.02.80 TAISHO PHARMACEUT KK A96 D22 E33 G03 *J5 6120-778
Adhesive plaster obtd. by blending rubber base - 82310D/45
- TAKE 13.08.69 TAKEDA CHEMICAL IND KK B04 C03 D16 =DS 2039-990
Antibiotic from streptomyces - 13781S/07
- TAKE 17.07.70 TAKEDA CHEM IND LTD B07 D13 =NL -168-328
Drying granular foodstuffs additives - 07035T/05
- TAKE 24.08.79 TAKEDA CHEMICAL IND KK C02 D16 =US 4296-107
Mildiomycin analogues - 19761D/12
- TAKG 09.04.79 TAKI KAGAKU KK D16 =J8 1043-356
Immobilisation of enzyme or mycelium - 87204C/49
- TAKS 22.04.75 TAKASAGO PERFUMERY KK D13 E24 =J8 1043-067
Purified laccase acid soln. of use in colouring drinks - 93408X/50
- * TAPO= 27.05.77 TALL POLY A96 B04 D16 *SU -664-468
Enzyme immobilisation carrier prodn. - 82857D/45
- TATL 16.04.74 TATE & LYLE LTD D17 =NL -168-269
Sugar crystallisation by high shear nucleation - 72498W/44
- TATL 25.01.77 TATE & LYLE LTD D16 F09 G02 (D13 D17) =J8 1043-241
Exo:cellular polysaccharide prepd. by fermentation - 40388A/23
- TATL 18.10.78 TALRES DEV NA NV B03 C02 D13 E13 (B07) =US 4296-139
Bittering of e.g. beverage or other compsns. - 33122C/19
- TATL 20.12.79 TALRES DEV NA NV A11 D16 F06 G02 =J5 6120-702
Xanthan gum of low intrinsic viscosity - 55427D/31
- * TEEP- 08.05.80 TEEPAK INC D12 *US 4295-247
Dividing continuously shirred casings into strands - 83255D/45
- TEIJ 25.05.77 TEIJIN KK A88 D15 J01 (A21) =GB 1602-085
Permselective membrane contg. epoxy polymer - 88152A/49
- TEXC 12.09.77 TEXACO DEV CORP A97 D25 E16 (A25) =J8 1043-277
Surface active agents prepd. from specified alkanol - 20043B/11
- THOM 19.04.80 THOMAE K GMBH B02 D13 E13 =EP --38-458
Sweetening agent benzothiazole derivs. - 79950D/44
- TOCO- 23.02.80 TOYO CONTACT LENS D22 E36 =FR 2479-491
Removing adherent contamination from contact lenses - 72382D/40
- TOKA- 10.04.78 TOYO KAGAKU KENKYUS A96 D21 (A26 A60) =J8 1042-942
Rubber stopper used to measure length on root canal in dentistry - 85334B/47
- * TOKU 26.02.80 TOKUYAMA SODA KK D16 (D17) *J5 6121-496
Recovering polysaccharide from cultured prod. - 82371D/45
- * TOKU 27.02.80 TOKUYAMA SODA KK D13 (D16) *J5 6121-444
Elastic gelatinous substance prepn. - 82357D/45
- TOMI/ 17.11.78 TOMIC D A96 D21 (A14 D22) #US 4296-209
Spongy prosthesis cement for dentistry and surgery - 40959B/22
- * TORA 04.03.80 TORAY IND INC D23 E15 *J5 6122-322
Methylene:cyclohexenol derivs. - 82499D/45

TOXN

- TOXN 23.05.73 TOYO JOZO KK B03 D16 #DS 2326-916
Bredinine - 79096U/51
- *TOYM 27.02.80 TOYOBO KK B04 D16 *J5 6121-484
Heat-stable glycerol kinase prepn. - 82363D/45
- TRAN-12.12.79 TRANSAGRA CORP D15 = BR 8008-941
Improving anaerobic and aerobic digestion of waste and biomass - 29104D/17
- *TRIV-08.03.77 TRI-VALLEY GROWERS D13 *US 4296-140
Prepn. of moulded gelled pimento material - 83450D/45
- *TRUB 25.04.80 TRUBENISED GB LTD C03 D13 *GB 2074-437
Porous absorbent sheet impregnated with e.g. biocide - 82119D/45
- TSUC/ 23.10.73 TSUCHIYA T B04 C03 D23 = J5 0069-249
Concn. and sepn. of antifungal, antibiotic etc. - 82837D/45
- *TSUC/ 23.10.73 TSUCHIYA T B04 C03 D23 *J8 1043-715
Concn. and sepn. of antifungal, antibiotic etc. - 82837D/45
- UGIN 17.10.75 PROD CHIM UGINE KUH A87 D18 F06 G02 (A82) = US 4295-976
Polymeric antistaining compsn. esp. for textiles - 27180Y/16
- UNIC 30.06.77 UNION CARBIDE CORP D12 = CA 1110-108
Stuffing horn assembly with flow control device - 02456B/02
- UNIC 27.01.78 UNION CARBIDE CORP D12 = AT 7900-595
Wrapping for food products esp. sausages - 56294B/31
- *UNIC 23.04.80 UNION CARBIDE CORP D12 *BE -888-526
Machine for packing boned ham into sleeve of wrapping film - 81677D/45
- UNIL 20.01.67 UNILEVER NV D13 = IT 1052-677
Aromatising mixt. replacing meat extract - 61172Z/00
- UNIL 31.01.75 UNILEVER NV D16 (D25) = NL -168-264
Treating enzyme granules to reduce dust formation in handling - 63408X/34
- UNIL 29.04.75 UNILEVER NV A97 D25 E12 = NL -168-262
Aq. detergent compsn. contg. sodium-tripolyphosphate - 84988X/46
- UNIL 17.03.77 UNILEVER NV D13 = GB 1602-104
Prepn. of composite foods, esp. sweets such as peach melba - 67073A/38
- UNIL 25.03.77 UNILEVER NV D13 = GB 1602-105
Ice cream confection - 69156A/39
- UNIL 28.07.77 UNILEVER PLC A96 D21 = EP G000-664
Sprayable hair lacquer compsn. - 08019B/05
- UNIL 15.02.78 UNILEVER NV A32 D22 = AT 7901-130
Rendering plastics foil water permeable - 63269B/35
- *UNIL 18.06.79 LEVER BROTHERS CO A87 D25 E17 *US 4295-845
Pretreatment of stained fabrics before laundering - 83325D/45
- UNIL 26.12.79 UNILEVER NV D13 E24 = DE 3048-406
Non-migrating colourants for margarine - 49708D/28
- UNIL 11.04.80 UNILEVER PLC D25 E34 = BR 8102-075
Bleaching and laundering of fabrics - 81931D/45
- *UNIL 11.04.80 UNILEVER NV D25 E34 *EP --38-590
Bleaching and laundering of fabrics - 81931D/45
- *UNVO 15.06.79 UOP INC A11 D17 J01 (A91) *US 4295-994
Zeolite crystalline aluminosilicate adsorbent - 83389D/45
- *USDA 11.07.79 US SEC OF AGRICULTURE D15 *US 4295-333
Melting icebergs to produce fresh water - 83268D/45
- *USSI 14.08.80 US SEC OF INTERIOR D15 *US 4295-971
Clarification of slimes - 83376D/45
- *UVEG= 22.08.79 UKR VEG CUCURBIT D16 *SU -803-902
Blended substrate for intensive cultivation of mushrooms - 82989D/45
- UVER-27.03.80 UNIVL GES ERICHTUN D15 J01 (D18) = FR 2479-020
Sepn. of soluble substances from carrier liquids - 73994D/41
- *UYAM/ 03.03.80 UYAMA S A91 D15 (A14) *J5 6122-803
Anion exchange resin prodn. - 82579D/45
- *UYMO= 28.05.79 MORDOVO UNIV D13 *SU -803-912
Device for cooling milk - 82990D/45
- *VALB/ 26.03.80 VALBONESI F D13 *FR 2478-955
Effervescent prod. contg. at least two reactants for aerated drinks - 82026D/45
- VEND-20.06.77 VENDO RES INC A88 D15 J01 M25 = J8 1042-964
Device for sepg. ions from aq. soln. - 32083B/17
- *VERE 24.04.80 VER PAPIERW SCHICKEDANZ A96 D22 *DE 3015-730
Absorbent feminine hygiene tampon - 81799D/45
- *VERM/ 22.02.80 VERMA D S D16 *US 4296-205
Continuous dialysis flask for long term cell culture - 83482D/45
- *VLAS/ 05.02.79 VLASENKO V E D25 E14 H02 *SU -804-621
Sepn. of aromatic from non-aromatic hydrocarbon(s) - 83226D/45
- *VODG= 09.10.72 VODGEO WATER SUPPLY D15 T06 *SU -802-184
Automatic control of biological sewage treatment - 82909D/45
- WACK 12.12.74 WACKER CHEMIE GMBH A31 D14 J02 = IT 1052-784
Mixer with ribbed rotating shaft - 48213X/26
- *WARD/ 24.06.74 WARDWELL C R D22 *US 4296-179
Package partic for sterile surgical items - 83471D/45
- *WASS-08.04.80 VEB WASSERVERSORGUN D15 *DD -150-048
Centrifuged digested sludge liquid treatment - 81712D/45
- WELA 02.04.80 WELLA AG D21 E16 = GB 2074-444
Cosmetic anti-dandruff compsn. e.g. shampoo - 75924D/42
- WELK-28.03.80 WELKER K KG D11 = FR 2478-949
Automatic final baking oven with pivoting gondola(s) - 74295D/41
- WERN 21.04.80 WERNER & PFLEIDERER D15 = DE 3015-290
Sludge incineration in two stages using pyrolysis gases - 81874D/45
- *WERN 21.04.80 WERNER & PFLEIDERER D15 *EP --38-420
Sludge incineration in two stages using pyrolysis gases - 81874D/45
- WILK 18.04.72 WILKINSON SWORD LTD B05 D21 = US 4296-255
Alkylcarboxamides in cooling compsns - 67743U/45
- WILK 16.04.73 WILKINSON SWORD LTD B05 D21 E15 #US 4296-093
Alkylcyclohexylcarboxamides - 67744U/45
- WILL/ 22.02.77 WILLEMSSEN W H D13 = CA 1110-113
Mixer extruder unit for shaped pieces of dough - 45906A/26
- WILL/ 22.02.77 WILLEMSSEN W H D13 = NL -168-116
Mixer extruder unit for shaped pieces of dough - 45906A/26
- *WILL/ 25.04.80 WILLETT P D11 *GB 2074-434
Baker's oven with vertical stack of compartments - 82116D/45
- WINC-04.04.75 WINCANTON ENG LTD D13 = AT 7602-406
Production of blocks of natural cheese - 63492X/34
- *WOOD= 31.08.79 WOOD WORKING MECH C03 D22 E12 F09 (E34) *SU -804-435
Antiseptic timber impregnating compsn. - 83184D/45
- *YAMA 25.02.80 YAMANOUCHI PHARM KK B05 D16 *J5 6121-488
6-Amino-5-hydroxy-1,3-cyclohexadiene-1 carbaldehyde prepn. 82364D/45
- YAMA-28.03.80 YAMATO SETSUBI KOJI D15 = DE 3049-609
Submerged filter bed for liquid waste treatment - 76346D/42
- YAMS 22.12.77 YAMASA SHOYU KK B04 D16 = J8 1043-236
Citocarasin-E prodn. by *Aspergillus terreus* culture - 62123B/34
- *YAWA 01.03.80 NIPPON STEEL CORP D15 *J5 6121-608
Filtering medium for liquids contg. e.g. iron ore suspension - 82379D/45
- *YOSH/ 29.02.80 YOSHIHARA N D15 *J5 6121-607
Liq. filter - 82378D/45
- ZAID 01.05.79 ZH BISEIBUTSU KAGAKU KEN B03 D16 = US 4296-106
Istamycin A,B,AO and BO are antibiotics - 82842C/47

F

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68197-V D
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J5 6120-623 D45	NL 8020-394 D34	NL 8100-890 D42	DE 3049-308 D40	EP --34-429 D36	74341-D CDEF	81684-D DF	81902-D BD
88811-C D	NO 8101-766 D36	DK 8100-772 D45	SE 8100-741 D38	GB 2070-421 D37+	GB 2072-669 D41+	BE -889-315 D45	81923-D ADF
J5 5109-496 C50	SE 8104-121 D40	48111-D AD	DK 8005-570 D44	DK 8100-448 D45	FR 2479-215 D45	81686-D ADF	81931-D DE
J5 5109-496 C40	GB 2074-536 D45	EP --30-838 D27	J5 6121-485 D45	66090-D D	74342-D BD	BE -889-321 D45	81935-D CD
CA 1110-188 D45	40195-D CDE	WP 8101-650 D28	58809-D DF	BE -888-592 D37	GB 2072-670 D41	81687-D ABD	81937-D ADJ
D	DK 7904-638 D37	BR 8008-981 D45	BE -888-198 D33	HU T020-780 D43	FR 2479-260 D45	BE -889-327 D45	81938-D ADJ
06231-D BD	BR 7909-049 D38	49508-D ABD	FR 2479-264 D45	GB 2074-528 D45	75734-D ADG	81689-D D	81943-D ABD
EP --22-669 D05+	EP --38-347 D45	US 4273-557 D27	59059-D ACD	66364-D AD	BE -888-201 D42	BE -889-330 D45	81951-D BD
BR 8004-330 D08+	40408-D D	BE -888-213 D33	EP --33-291 D33	EP --34-861 D37	GB 2073-229 D42	81704-D D	81954-D D
NO 8002-095 D10+	DE 2947-297 D23	GB 2073-415 D42	FR 2474-278 D36	NL 8001-029 D42	BR 8101-928 D43	DD -149-998 D45	81972-D D
J5 6077-758 D33	DS 2947-297 D45	FR 2479-262 D45	BR 8100-480 D37	DK 8100-677 D45	FR 2478-998 D45	81712-D D	81977-D BDE
US 4296-090 D45	40481-D D	49708-D DE	DK 8100-375 D44	66392-D AD	75924-D DE	DD -150-048 D45	81982-D AD
07651-D BD	DE 3043-551 D23	BE -886-860 D28	J5 6120-609 D45	EP --34-920 D37+	DE 3012-767 D42	81713-D DE	81989-D DE
US 4244-865 D05	GB 2063-937 D24	GB 2066-645 D29	60306-D AD	NO 8100-566 D41+	GB 2074-444 D45	DD -150-051 D45	81993-D CD
FR 2471-411 D32	FR 2470-148 D30	NL 8007-019 D32	US 4280-936 D33	DK 8100-741 D45+	76316-D D	81716-D ADJ	81997-D BDE
DE 3045-430 D37	J5 6085-416 D35	FR 2472-350 D34	EP --38-533 D45	66394-D BDE	GB 2073-032 D42	DD -150-067 D45	81901-D BD
J5 6121-499 D45	US 4295-894 D45	DE 3048-406 D45	60454-D D	EP --34-925 D37	FR 2478-435 D44	81713-D DE	81902-D BD
11777-D DE	42123-D BDE	50122-D BD	BE -888-232 D34+	GB 2070-599 D37	SE 8002-181 D45	DD -150-076 D45	81923-D ADF
BE -884-621 D08	BE -887-290 D24	EP --31-285 D28	GB 2074-601 D45+	PT --72-540 D44	76346-D D	81724-D DHL	81931-D DE
PT --71-947 D20	GB 2068-971 D34+	FR 2471-785 D33	60703-D ABD	DK 8100-769 D45	GB 2073-165 D42	DD -150-078 D45	81935-D CD
DE 3039-281 D45	SE 8100-238 D38	J5 6123-918 D45	EP --33-437 D34	66590-D D	DE 3049-609 D45	81716-D ADJ	81937-D ADJ
15518-D DE	NL 8100-437 D39	51646-D D	DE 3003-836 D34	GB 2070-751 D37	76348-D BCD	DD -150-067 D45	81938-D ADJ
US 4250-200 D09	FR 2479-259 D45	WP 8101-665 D28	J5 6120-950 D45	FR 2477-032 D41	GB 2073-170 D42+	81725-D AD	81943-D ABD
US 4292-193 D42	42127-D ABD	SE 7910-058 D30	60733-D DEJ	DK 8000-685 D45	FR 2479-232 D45+	DD -150-078 D45	81951-D BD
US 4295-978 D45	BE -887-315 D24	FI 8003-798 D34	EP --33-540 D34	68501-D D	76374-D DE	81726-D DE	81954-D D
15658-D BD	US 4272-513 D26	NO 8102-652 D45	J5 6121-498 D45	GB 2071-142 D38	GB 2073-232 D42	DD -150-079 D45	81972-D D
BE -885-877 D10	GB 2068-229 D33	51660-D BDE	60791-D BD	FR 2476-122 D39	DD -150-064 D45	81743-D ABD	81982-D D
WP 8101-248 D22	BR 8100-386 D36	WP 8101-714 D28	EP --33-686 D34	NL 8100-863 D42	76379-D D	DE 3014-123 D45	81985-D BD
BR 8008-901 D38	FR 2474-862 D37	NO 8102-656 D45	FR 2474-828 D37	DK 8100-689 D45	GB 2073-241 D42	DE 3014-291 D45	81989-D DE
NO 8102-186 D40	PT --72-425 D37	BR 8008-967 D45	NO 8100-334 D38	72048-D DEF	FR 2479-263 D45	81753-D CDE	81991-D D
EP --38-339 D45	NO 8100-323 D38	53481-D BD	FI 8100-174 D43	EP --36-055 D40	78029-D DEFJ	DE 3014-765 D45	81993-D CD
19761-D CD	SE 8100-174 D38	BE -887-941 D30+	DK 8100-427 D44	FI 8100-243 D43	EP --37-542 D43	81763-D D	81997-D BDE
EP --24-866 D12	NL 8100-473 D39	GB 2071-670 D39+	J5 6123-921 D45	J5 6120-603 D45	BR 8102-047 D43	DE 3015-164 D45	81998-D DE
J5 6032-495 D20	FI 8100-237 D43	FR 2477-843 D43+	60792-D D	72110-D D	DE 3013-391 D45	81771-D DE	81999-D D
US 4296-107 D45	DK 8100-425 D44	NL 8101-182 D44+	EP --33-687 D34	EP --36-182 D40	79543-D ADJ	DE 3015-374 D45	81999-D D
21414-D AD	J5 6122-308 D45	SE 8101-585 D45+	FR 2474-311 D36	DE 3010-222 D40	US 4293-420 D43	81777-D DEJ	81999-D D
WP 8100-570 D12	42128-D BD	53797-D ADJM	J5 6120-614 D45	NO 8100-898 D45	EP --38-695 D45	DE 3015-439 D45	81999-D D
EP --34-174 D36	BE -887-316 D24	GB 2067-203 D30	62283-D D	72111-D D	80086-D ACDF	81787-D BDJ	81999-D D
BR 8008-996 D45	GB 2068-230 D33	DE 3047-852 D39	WP 8102-089 D34	EP --36-183 D40	EP --38-109 D44	DE 3015-537 D45	81999-D D
21724-D BCDE	BR 8100-514 D37	J5 6120-710 D45	US 4296-136 D45	BR 8101-510 D40	BR 8100-639 D37	81796-D D	81999-D D
DE 3032-481 D13	PT --72-424 D37	55162-D BD	62503-D BCD	DE 3010-003 D40	BR 8100-640 D37	DE 3015-712 D45	81999-D D
GB 2057-875 D15	NO 8100-324 D38	BE -887-991 D31	DE 3005-642 D35	NO 8100-783 D45	NO 8100-366 D39	81799-D AD	81999-D D
J5 6034-621 D21	SE 8100-554 D38	GB 2071-671 D39	BR 8100-869 D38	72133-D BDE	FI 8100-296 D43	DE 3015-730 D45	81999-D D
FR 2464-068 D22	FR 2475-899 D39	FR 2478-125 D43	EP --35-125 D38	EP --36-258 D40	FI 8100-297 D43	81801-D D	81999-D D
US 4296-104 D45	NL 8100-470 D39	SE 8101-665 D45	DK 8100-647 D45	NO 8100-851 D45	DK 8100-477 D44	DE 3015-743 D45	81999-D D
25210-D DEJ	DK 8100-338 D44	55427-D ADFG	62553-D D	72209-D ABCD	J5 6122-304 D45	81806-D D	81999-D D
US 4256-563 D14+	J5 6122-307 D45	EP --32-293 D31	DE 3013-905 D35	FR 2476-441 D40	80086-D ACDF	DE 3015-779 D45+	81999-D D
SE 8000-023 C49	44034-D ADF	GB 2069-516 D35+	EP --38-402 D45	GB 2072-508 D41	EP --38-109 D44	81796-D D	81999-D D
DE 3001-240 D33+	WP 8101-368 D24	DK 8005-458 D41	62670-D BD	J5 6120-601 D45	BR 8100-639 D37	DE 3015-712 D45	81999-D D
FI 8000-145 D43+	EP --29-811 D24	J5 6120-702 D45	EP --34-083 D35	72382-D DE	BR 8100-640 D37	81799-D AD	81999-D D
FR 2479-272 D45+	NO 8102-511 D44	56870-D BCD	FR 2474-829 D37	GB 2072-371 D40	NO 8100-366 D39	DE 3015-730 D45	81999-D D
29021-D BCD	BR 8008-925 D45	US 4278-663 D31	NO 8100-335 D38	J5 6119-113 D44	FI 8100-296 D43	81801-D D	81999-D D
WP 8100-812 D16	45990-D BCD	NO 8100-319 D38	EP --35-119 D38	FR 2479-491 D45	FI 8100-297 D43	DE 3015-743 D45	81999-D D
EP --38-337 D45	BE -886-578 D26+	FI 8100-252 D43	DK 8100-298 D44	73994-D DJ	DK 8100-477 D44	81806-D D	81999-D D
	GB 2065-663 D27+	DK 8100-298 D44	J5 6120-696 D45	DE 3011-844 D41	J5 6122-304 D45	DE 3015-779 D45+	81999-D D
	EP --31-662 D29+	J5 6120-696 D45		GB 2072-650 D41			81999-D D
	PT --72-152 D32+			BR 8101-740 D42			81999-D D
	FI 8003-870 D34+			FR 2479-020 D45			81999-D D
	US 4287-120 D38						81999-D D
	J5 6115-754 D43+						81999-D D
	DK 8005-281 D43+						81999-D D
	FR 2479-207 D45+						81999-D D

81996-D BD EP --38-738 D45	82206-D AD J5 6120-610 D45	82370-D BD J5 6121-495 D45	82796-D D J8 1042-967 D45 J5 4030-654 D45	83004-D D SU -803-952 D45	83481-D BCD US 4296-204 D45 +
82003-D D EP --38-752 D45	82207-D DE J5 6120-611 D45	82371-D D J5 6121-496 D45	82799-D D J8 1042-993 D45 J5 4033-355 D45	83184-D CDEF SU -804-435 D45	83482-D D US 4296-205 D45
82004-D BD EP --38-753 D45	82208-D DE J5 6120-612 D45	82372-D D J5 6121-497 D45	82804-D D J8 1043-229 D45 J5 5039-726 D45	83190-D D SU -804-577 D45	83500-D DE US 4296-257 D45
82007-D D EP --38-759 D45 WP 8103-030 D45	82209-D AD J5 6120-613 D45	82378-D D J5 6121-607 D45	82811-D D J8 1043-332 D45 J5 5015-553 D45	83222-D CD SU -804-616 D45	83510-D DEJ US 4296-328 D45
82010-D BD EP --38-765 D45 +	82214-D BD J5 6120-621 D45	82379-D D J5 6121-608 D45	82812-D D J8 1043-352 D45 J5 5102-388 D45	83226-D DEH SU -804-621 D45	83521-D BD WP 8102-977 D45 +
82011-D D EP --38-766 D45	82216-D BDE J5 6120-626 D45	82401-D ADEG J5 6121-634 D45	82836-D D J8 1043-708 D45 J5 6058-460 D45	83229-D ADE SU -804-624 D45	83530-D D WP 8103-009 D45
82019-D ACD EP --38-792 D45	82217-D BDE J5 6120-627 D45	82411-D DEJ J5 6121-682 D45	82837-D BCD J8 1043-715 D45 J5 0069-249 D45	83231-D ADE SU -804-626 D45	83533-D BCDE WP 8103-020 D45
82020-D D FR 2478-940 D45	82249-D DE J5 6120-678 D45	82412-D DEJ J5 6121-685 D45	82838-D D J8 1043-720 D45 J5 0082-659 D45	83249-D ABD SU -804-647 D45	83538-D DH WP 8103-029 D45 +
82022-D D FR 2478-950 D45	82251-D DE J5 6120-681 D45	82413-D DEJ J5 6121-686 D45	82842-D BD SE 8000-644 D45 SE 8000-644 D38	83255-D D US 4295-247 D45	83547-D D WP 8103-076 D45
82023-D D FR 2478-952 D45	82257-D BD J5 6120-694 D45	82414-D D J5 6121-693 D45	82849-D DM SU -267-500 D45	83264-D BD US 4295-280 D45	
82024-D CD FR 2478-953 D45	82259-D BD J5 6120-698 D45	82490-D DEG J5 6122-306 D45	82854-D DEM SU -507-042 D45	83268-D D US 4295-333 D45	
82025-D CD FR 2478-954 D45	82310-D ADEG J5 6120-778 D45	82499-D DE J5 6122-322 D45	82857-D ABD SU -664-468 D45	83325-D ADE US 4295-845 D45 +	
82026-D D FR 2478-955 D45	82317-D ADEF J5 6120-788 D45	82537-D BD J5 6122-392 D45	82877-D D SU -776-594 D45	83358-D ADEF US 4295-932 D45	
82027-D D FR 2478-956 D45	82321-D ADE J5 6120-800 D45	82538-D BD J5 6122-393 D45	82878-D D SU -776-595 D45	83363-D ADJ US 4295-946 D45	
82028-D D FR 2478-957 D45	82352-D CDEF J5 6121-414 D45	82539-D BD J5 6122-394 D45	82880-D D SU -777-063 D45	83376-D D US 4295-971 D45	
82030-D D FR 2478-997 D45 +	82353-D DE J5 6121-428 D45	82579-D AD J5 6122-803 D45	82884-D D SU -793-550 D45	83377-D DJ US 4295-973 D45 +	
82031-D BCD FR 2479-000 D45 +	82354-D DE J5 6121-429 D45	82639-D ADE J5 6122-898 D45	82885-D D SU -793-562 D45	83380-D DE US 4295-978 D45 +	
82032-D DG FR 2479-002 D45	82355-D CD J5 6121-436 D45	82640-D ADE J5 6122-899 D45	82909-D D SU -802-184 D45	83384-D DE US 4295-985 D45 +	
82067-D ADH FR 2479-251 D45	82356-D CD J5 6121-441 D45	82641-D AD J5 6122-900 D45	82979-D DGM SU -802-909 D45	83389-D ADJ US 4295-994 D45 +	
82069-D D FR 2479-257 D45	82357-D D J5 6121-444 D45	82642-D ABDJ J5 6122-947 D45	82989-D D SU -803-902 D45	83405-D D US 4296-026 D45	
82077-D D FR 2479-437 D45	82358-D BDE J5 6121-453 D45	82685-D ADFJ J5 6123-408 D45	82990-D D SU -803-912 D45	83422-D D US 4296-064 D45	
82088-D AD GB 1601-735 D45	82359-D BDE J5 6121-454 D45	82692-D DF J5 6123-474 D45	82991-D CD SU -803-924 D45	83423-D D US 4296-068 D45 +	
82116-D D GB 2074-434 D45	82360-D BDE J5 6121-455 D45	82693-D ADEF J5 6123-476 D45	82992-D CD SU -803-925 D45	83436-D BD US 4296-101 D45	
82117-D D GB 2074-435 D45	82361-D DE J5 6121-477 D45	82780-D ACDF J5 6123-906 D45	82995-D D SU -803-933 D45	83446-D CD US 4296-132 D45	
82118-D D GB 2074-436 D45 +	82362-D D J5 6121-483 D45	82781-D ACDE J5 6123-907 D45	82996-D CD SU -803-934 D45	83447-D D US 4296-134 D45 +	
82119-D CD GB 2074-437 D45 +	82363-D BD J5 6121-484 D45	82782-D DE J5 6123-910 D45	82997-D D SU -803-935 D45	83448-D BDE US 4296-137 D45	
82123-D ACDG GB 2074-449 D45	82364-D BD J5 6121-488 D45	82783-D ABD J5 6123-912 D45	82998-D D SU -803-936 D45	83449-D DE US 4296-138 D45 +	
82140-D DE GB 2074-532 D45	82365-D DE J5 6121-489 D45	82787-D BD J5 6123-919 D45	83002-D DJM SU -803-950 D45	83450-D D US 4296-140 D45 +	
82143-D CD GB 2074-558 D45 +	82366-D BD J5 6121-490 D45	82791-D CDE J5 6123-929 D45		83451-D D US 4296-141 D45	
82157-D AD GB 2074-590 D45 +	82367-D BDE J5 6121-491 D45	82792-D CDE J5 6123-930 D45		83456-D CDEF US 4296-152 D45	
82192-D DJ GB 2074-761 D45	82368-D BDE J5 6121-492 D45	82795-D D J8 1042-966 D45 J5 3054-854 D45		83471-D D US 4296-179 D45 +	

